GENDER EQUALITY IN ACADEMIA AND RESEARCH

GEAR tool

EIGE
European Institute
for Gender Equality

This publication was prepared under the gender mainstreaming programme of the European Institute for Gender Equality. It is available online through EIGE's Gender Mainstreaming Platform: http://eige.europa.eu/gender-mainstreaming

The European Institute for Gender Equality created the online Platform on Gender Mainstreaming to support the EU institutions and governmental bodies with the integration of a gender perspective in their work. The Platform provides insights on the relevance of gender in a variety of policy areas and offers online tools for gender mainstreaming.

The Platform helps to improve individual and institutional competences to mainstream gender into the different sectorial areas and throughout the different stages of the development of any policy/programme/project. Understanding how to design, plan, implement, monitor and evaluate policies from a gender perspective will strengthen EU policies, increasing their societal relevance and responsiveness.

European Institute for Gender Equality

The European Institute for Gender Equality (EIGE) is the EU knowledge centre on gender equality. EIGE supports policy makers and all relevant institutions in their efforts to make equality between women and men a reality for all Europeans by providing them with specific expertise and comparable and reliable data on gender equality in Europe.

European Institute for Gender Equality
Gedimino pr. 16
LT-01103 Vilnius
LITHUANIA
Tel. +370 5 215 7444
E-mail: eige.sec@eige.europa.eu

http://www.eige.europa.eu
http://www.twitter.com/eurogender
http://www.facebook.com/eige.europa.eu
http://www.youtube.com/eurogender
http://eurogender.eige.europa.eu

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1. EU objectives for gender equality in research

Three objectives underpin the European Commission's strategy on gender equality in research and innovation policy:

1. **fostering equality in scientific careers;**

2. **ensuring gender balance in decision-making processes and bodies;**

3. **integrating the gender dimension in research and innovation content.**

As laid out in the European Commission's *Communication for a reinforced European research area* (2012), **EU Member States** are encouraged to:

1. create a legal and policy environment and provide incentives to:

   (a) remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality (Directive 2006/54/EC);

   (b) address gender imbalances in decision-making processes;

   (c) strengthen the gender dimension in research programmes.

2. engage in partnerships with funding agencies, research organisations and universities to foster cultural and institutional change on gender — charters, performance agreements and awards;

3. ensure that at least 40 % of the under-represented sex participates in committees involved in recruitment/career progression and in establishing and evaluating research programmes.

The *Council conclusions on advancing gender equality in the European research area* (adopted in 2015) reiterate the need to foster sustainable cultural and institutional change in the European research area (ERA) national action plans or strategies at the level of Member States and research institutions.

The Council also invites **EU Member States** and **research funding organisations** to provide incentives to encourage **higher education institutions and research organisations** to revise or develop gender-mainstreaming strategies and/or gender equality plans (GEPs) and to mobilise adequate resources.

The Council calls in particular for:

1. guiding targets in decision-making bodies, such as leading scientific and administrative boards, recruitment and promotion committees and evaluation panels, to achieve gender balance in leadership and decision-making positions;

2. guiding targets for a more even gender balance of full professors in higher education institutions;

3. monitoring, with appropriate indicators, the implementation of gender policies, and actions at institutional, national and EU level;

4. gender awareness-raising and capacity-building tools in order to achieve institutional change;

5. flexible and family-friendly working conditions and arrangements for both women and men;

6. reviewing the assessment of researchers' performance, to eliminate gender bias.

2. Structural change in the research area

2.1 What is it?

Institutional change is a strategy aimed at removing the obstacles to gender equality that are inherent in the research system itself, and at adapting institutional practices. Within an institutional change approach, the focus is on the organisation.

In the ERA, research organisations and higher education institutions are invited to implement institutional change relating to human resources management, funding, decision-making and research programmes. The main objectives of institutional change are to enhance women's representation and retention at all levels of their scientific careers and to promote the integration of the gender dimension in research and innovation content.

2.2 Why is it necessary?

Both **women and men are working in research organisations and higher education institutions,** 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.

To address structural (re-)production of inequalities in research and higher education institutions, 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. Several mechanisms tend to (re-)produce inequalities in research institutions.

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 with 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. The stereotypical subject choices of students

are therefore a real concern. Top hierarchical positions are more frequently occupied by men (vertical segregation). In addition, research and teaching often seem to disregard the important gender dimension in their approach, content and analysis. The result is that the 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 and awards, etc.) because it impedes an objective and fair judgement. As the name makes clear, people might hold biases that they are not conscious of, however there are techniques to raise awareness and to act upon them.

Masculine image of science

From an 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.

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

According to the latest European Commission *She figures handbook*, in 2012 only 33 % of European researchers were women. This percentage tends to be even lower in typically male-dominated fields. Throughout the years, *She figures* has also provided evidence that women have been historically under-represented 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 in the top grade of a scientific career is only 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.

2.3 The Gender Equality Plan as a tool for structural change

In the specific context of research organisations and higher education institutions, the European Commission considers a **Gender Equality Plan** as a set of actions aimed at:

1. conducting impact assessment/audits of procedures and practices to identify gender bias;

2. identifying and implementing innovative strategies to correct any bias;

3. setting targets and monitoring progress via indicators (¹).

The scope of a GEP may strongly vary, depending on the type of research-performing organisation, the institutional context in which it is implemented, the disciplines addressed or the type of gender biases and inequalities identified as part of the diagnosis.

A GEP can be broken up into different steps or phases, each requiring specific types of interventions.

1. **An analysis phase**, in which sex-disaggregated data is collected; procedures, processes and practices are critically assessed with a view to detecting gender inequalities and gender bias.

2. **A planning phase**, in which objectives are defined, targets are set, actions and measures to remedy the identified problems are decided, resources and responsibilities are attributed and timelines are agreed upon.

3. **An implementation phase**, in which activities are implemented and outreach efforts are undertaken so as to gradually expand the network of stakeholders.

4. **A monitoring phase,** in which the process and the progress are regularly followed up on and assessed. Findings from the monitoring exercise(s) allow adjustment and improvement measures and activities, so that the results can be optimised.

This set of actions, which can have different degrees of complexity, is meant to articulate a strategic view aimed at achieving gender equality. Initiatives such as adopting general gender equality objectives do not constitute per se a gender equality strategy/plan, as these commitments have to materialise into a concrete set of steps and actions to be undertaken. For the same reason, a broader diversity or anti-discrimination strategy and/or plan addressing gender among other issues, should not automatically equal to having a Gender Equality Plan. If such a strategy does not rely upon sufficient data on gender, and only addresses gender through a limited number of measures and indicators, it is unlikely that gender equality will actually be achieved.

The way gender biases and inequalities themselves are being addressed can also vary, along with the chosen approach and the availability of internal or external gender expertise. Recently, gender bias and inequalities have been increasingly addressed taking into account their intersection with other inequality grounds such as disability, age, sexual orientation, religion or ethnicity. Addressing other inequalities intersecting with gender may offer efficient leverages for change and can also inspire comprehensive actions and strategies. Yet, it also requires more analytical resources, data and a broader range of expertise than tackling gender separately from other inequality grounds.

(¹) Source: European Commission communication on *A reinforced European research area partnership for excellence and growth* (COM(2012) 92 final) http://ec.europa.eu/transparency/regdoc/rep/1/2012/EN/1-2012-392-EN-F1-1.Pdf

2.4 Who is involved?

As a principle, all stakeholders of a research organisation or higher education institution are mobilised for developing and implementing a GEP. Their involvement, which can be direct or more indirect depending on the stakeholder profile, will create a sense of belonging that will help in overcoming obstacles and resistances throughout the process at all levels.

Although the organisational structure of European universities and research institutions differ, various types of actors, listed below are (to be) involved in a GEP. Their responsibilities need to be mutually agreed on and made clear from the very beginning. Their cooperation is crucial for the successful development and implementation of a GEP.

Structure to support gender equality work

First of all, a gender equality plan needs to be strongly supported by a dedicated structure. Structures to support gender equality work are dedicated organisational arrangements which are mandated to support structural change towards gender equality through their work. Such a structure may already exist in the research organisation or higher education institution. Examples include: gender equality offices/units, ombud services or gender equality networks. They are the best places to initiate, ensure the implementation and monitor the GEP. If your organisation does not have such a structure, its creation can be one of the measures of your plan.

These structures are more effective when:

1. they are composed of more than (the equivalent of) one person working full-time and whose mandate is solely dedicated to promoting gender equality;

2. they do not work in isolation and are well-networked;

3. they are publicly supported by top-level executives (e.g. a university rector or dean, or a director of a research centre).

What is the role of a structure to support gender equality work in a GEP?

1. set up, implement, monitor and evaluate the GEP;

4. provide practical support and tools to the actors involved in the implementation of the GEP;

5. cooperate with and engage stakeholders at all levels in order to ensure the implementation of the GEP's measures;

6. raise awareness about the benefits of gender equality in research organisations;

7 assess the progress towards gender equality in the organisation.

Senior management and leadership posts

These are the actors responsible for governing the organisation. Whereas in higher education institutions they can be a rector or a chancellor, in research organisations they can be a chair of the board or a director. They have the power to make decisions and are, therefore, very important allies when setting up and implementing a GEP.

What is the role of senior management and leadership posts in a GEP?

1. Publicly support the principle of gender equality in/for the organisation.

2. Publicly endorse the GEP and the structure responsible for its implementation. See for example the video about the HeForShe campaign event held at Sciences Po (Paris), with interventions by the director and the provost of Sciences Po, explicitly supporting gender equality: https://www.youtube.com/watch?v=b834mK1nlcw

3. Make available sufficient financial and human resources to implement the GEP.

4. Approve the relevant documentation, procedures and activities supporting structural change towards gender equality in the organisation.

5. Request regular updates regarding the implementation of the plan and progress towards gender equality.

Managers

These actors are in charge of the day-to-day management of the organisation's departments. In the context of research organisations, these actors include faculty deans, heads of departments or directors of services. They may have a closer relationship with teaching and/or research staff, as well as with students (depending on the organisation).

What is the role of managers in a GEP?

1. publicly support the GEP;

2. ensure the practical implementation of the measures, procedures and activities required by senior management and listed in the GEP;

3. promote incentives to ensure the integration of a gender dimension in research and teaching;

4. instruct the relevant units to provide information and data to monitor the implementation of the GEP and progress towards gender equality.

Research and/or teaching staff

Staff with research and/or teaching responsibilities can have a ground-breaking role in changing the way disciplines are taught and the way research is done. Integrating a gender dimension in research and innovation content and in teaching opens new horizons and creates new knowledge. Considering a gender dimension in research can have a positive and powerful impact on society and on improving people's lives.

What is the role of research and/or teaching staff in a GEP?

1. integrate a gender dimension in research content and teaching (see the section on 'integrating gender in research and education content');

2. actively participate in the initiatives organised within the framework of the GEP;

3. instigate change through debating the status quo of the organisation and proposing measures to promote structural change;

4. organise activities that focus on integrating a gender dimension in research and innovation content and/or that contribute to promoting structural change to progress gender equality in the organisation.

For example, the University of Santiago de Compostela created an award to recognise and make visible existing research projects and teaching practices that stand out for integrating a gender dimension.

Human resources department

The department responsible for managing the human resources of the organisation is key to promoting structural change towards gender equality. This department can promote unbiased and fairer procedures and measures that contribute to achieving a gender-balanced composition of the organisation's staff. In addition, it can implement measures that ensure an equal career progression and a balanced reconciliation of work and family life.

What is the role of human resources staff in a GEP?

1. Collect and report about sex-disaggregated data about the organisation's staff on a systematic basis.

5. Develop gender-sensitive and gender-specific indicators to monitor progress towards gender equality in the organisation.

6. Review and/or create recruitment and selection measures and procedures that contribute to a gender-balanced composition of the organisation's staff at all levels.

7. Review and/or set up measures aimed at a better reconciliation of professional and family life, working and caring duties.

8. Review and/or set in place an anti-harassment policy and complaints procedure.

Students

Higher education institutions have a major responsibility in instructing their students. This includes raising their awareness regarding gender-relevant issues in all disciplines and subject areas. In addition, they also need to be encouraged and taught to integrate and apply a gender perspective to their research. Students may become teachers or researchers themselves. Raising students' awareness and sensitivity about gender equality contributes to changing attitudes and behaviours in other spheres of their lives.

What is the role of students in a GEP?

1. Actively participate in the initiatives organised within the framework of the GEP.

2. Integrate the gender dimension in research content.

3. Learn to identify gender biases.

2.5 Arguments and benefits for gender equality change

Setting up and implementing a plan requires strong arguments about the benefits of working towards gender equality in universities and research institutions. These supporting arguments are of different nature and outreach. They can be combined in different ways to build the case for gender equality within the institution, and to reach different categories of stakeholders. The scope of arguments to be used needs to be adapted to the culture of the institution. In particular, you should be cautious about the uptake and acceptance of performance-related arguments. While it is widely accepted that measuring performance matters

in research, this framing is not accepted to the same extent in every context.

It is generally acknowledged that promoting gender equality in research organisations and higher education institutions brings positive impact with respect to:

1. compliance with domestic and EU regulations;

2. well-being at work;

3. social dialogue and cooperation among stakeholders;

4. internal decision-making and career management procedures;

5. inclusiveness and the sense of community;

6. the quality of research (and teaching);

7. the overall profile of the organisation in a competitive environment.

In itself, quoting these broad areas of impact can help in building the case for gender equality policies. It is however not sufficient, and potential benefits should be formulated so as to be directly relevant to different categories of stakeholders.

The main types of benefits are as follows.

1. Compliance with domestic and EU regulations

Although to different extents, all universities and research organisations are bound to respect certain legal obligations related to discrimination and gender equality. Even if it may vary, there is a cost for breaching existing regulations. This cost can consist of fines, legal prosecutions and liability, damaged reputation, a loss of attractiveness or internal conflicts. Complying with the rules requires resources and know-how, which are often more easily secured if implementing a gender-mainstreaming strategy (for instance, sex-disaggregated data production, monitoring instruments, etc.). In addition, investing in gender equality helps organisations to comply with legal provisions more comprehensively and proactively.

2. Creating better work environments

Research organisations and universities are also work environments in which all staff should be able to freely develop their skills and fulfil their expectations. Since these work environments are made up of women and men, adopting a gender-sensitive perspective in this regard is sensible. Beyond compliance with existing rules, preventing verbal, psychological and physical gender-based offenses is a basic requirement for a safe, gender-friendly work environment. Enabling work-life balance in the organisation, distribution and planning of work, brings benefits for both sexes. These benefits are relevant both to the individuals, in terms of well-being and motivation, and to the organisation, in terms of effectiveness. Additionally, better work environments contribute to retaining and attracting talent. They are part of a more sustainable management of human resources.

3. Attracting and retaining talents

Research activities are highly intensive in human capital. Training qualified and creative researchers is costly, and bringing them up to their full potential takes time. Moreover, research organisations are involved in intense competition for talent. This makes it especially necessary to address the full pool of talents, including women — even when they are under-represented. It also requires retaining research staff over time and giving them the opportunity to achieve their personal and professional objectives and potential. It has been shown that women are abandoning their scientific careers in much greater numbers than men. Described as the 'leaky pipeline' of women in science, this phenomenon has a considerable impact: a loss of knowledge, an organisational cost and a reduced and limited perspective in scientific research. It also feeds a vicious circle: as women leave research in greater numbers, research becomes less attractive to women. Attracting and retaining female researchers in a knowledge-based economy can only be reached if the full spectrum of gender bias and inequalities in research is addressed.

4. Economic benefits

There are different kinds of economic benefits. First, research is not only intensive in human capital, but also in funding. Universities and research organisations are engaged in fierce competition to access public funding. Increasingly, this competition is organised and framed by funding agencies bound to the objectives of the ERA. Along with other priorities, principles of 'responsible research' and 'innovation' apply to the selection of successful applications. Within this framework, gender equality is increasingly referred to as an additional criterion to access public funding. This is clearly the case under the EU work programmes of Horizon 2020, but also in several Member States, such as the UK. Hence, addressing gender equality in research, but also adopting a gender lens in research content and outputs, can improve the competitiveness of universities and research organisations. Secondly, an increasing part of research is directly interested in producing added value in terms of products, services and policy delivery. Building gender-balanced teams, securing gender expertise and adopting a gender perspective in implementing and disseminating research work can bring specific benefits. A broader set of needs, expectations and usages is

likely to be taken into account, and research outputs can achieve greater validity. New target audiences, beneficiaries or final users/customers can thus be reached by adopting a gender perspective.

5. Excellence and research quality

The quest for excellence and quality has become a major issue for research organisations and higher education institutions. It is driven by intense competition for skills, funding and innovations. Bringing a gender dimension in research and innovation content improves the overall quality of research design, hypotheses, protocols and outputs in an ample variety of fields. It not only allows addressing gender bias and building more evidence-based and robust research, but also contributes to pluri-disciplinarity. As science and innovation are increasingly framed as working for/with society, reflecting the diversity of final users from the early research stage has become a must. 'Gender blindness' (understood as the lack of consideration for gender-related aspects) often goes with neglecting other relevant social or experiential parameters. Challenging this blindness, on the contrary, creates awareness for a broader set of variables than just sex and/or gender.

6. Effectiveness and efficiency of the research

Building gender diverse teams helps to secure a broader set of viewpoints, contributing to enhanced creativity and innovation — and thus also the quality of research. Such teams promote inclusiveness, experiment more, and share and create knowledge. In addition, teams with a balanced number of women and men tend to perform better and exhibit superior dynamics and productivity. Ensuring diversity in working teams (in terms of gender, background, nationality and age, etc.) helps in creating a supportive organisation, which improves its reputation and contributes to retaining and attracting (new) talent.

7. Leverage for organisational change

Pursuing gender equality requires involving all staff categories — including management, non- research staff and students — in a joint effort to produce change. As these categories only rarely collaborate, this overarching goal offers the opportunity to enhance the sense of community and ownership. Additionally, the changes required to achieve gender equality also bring benefits in terms of transparency and accountability, decision-making, career management and research evaluation procedures. Indeed, these procedures are often affected by different sorts of bias and unwritten rules which a concern for gender equality helps to challenge. The changes needed to achieve gender equality and bring in a gender perspective in research require

a longer timeframe to measure their effectiveness. Both shorter-term and longer-term impacts have to be pursued to ensure the mobilisation of research organisations over time and to make qualitative and quantitative evidences more salient. But these efforts in terms of monitoring can also be beneficial for a better knowledge of what makes organisational change successful, or not. Last but not least, addressing gender (in)equality can be part of a broader strategic process aimed at enhancing the competitive edge and national or international profile of the organisation.

Need inspiration?

Interested in more arguments for why work on gender equality and diversity in research is relevant? The Norwegian Committee for Gender Balance and Diversity in Research provides six key arguments on its website. These deal with:

1. fairness;

2. democracy and credibility;

3. national research objectives;

4.research relevance;

5. research quality;

6. competitive advantage.

Read the argumentation in full below.

Why work to improve the gender balance and increase diversity in research?

It is important to clarify the reasons for working for gender equality and diversity in an institution. The Committee for Gender Balance and Diversity in Research (2014-2017) gives the following arguments for its efforts to promote gender equality and ethnic diversity in academia.

Fairness

Gender balance and non-discrimination are a matter of fairness. Women and men, regardless of their ethnic background, must have the same opportunities to participate in, and the same power to influence, the higher education and research community.

Democracy and credibility

To have a well-functioning democracy, women and men, as well as various ethnic minorities, must participate on an equal footing in all areas of society. If the community

of researchers and research managers is more gender-balanced and ethnically diverse, the institutions will more accurately reflect the diversity of the population. This will strengthen the institutions' credibility and ensure that they incorporate the research interests of a larger portion of the population.

National research objectives

To achieve national policy objectives for higher education and research, Norway must utilise all the human capital at its disposal. An imbalance in recruitment results in a loss of research talent. The various subject areas are still segregated by gender and tend to recruit a disproportionately low number of ethnic minorities. It is therefore essential that a gender and diversity perspective underlies the establishment and realisation of national research priorities.

Research relevance

High-quality research that is relevant to society requires that research communities are able to raise the 'right' questions and consider a number of different solutions. This is best ensured when research communities are open to different types of people with different experiences and have the ability to cooperate across and within disciplines. Research and education are integral to policy formulation and public administration, and contribute to a more critical, diverse and open public debate. When researchers reflect the diversity of the population as a whole, the credibility and relevance of research is enhanced.

Research quality

Heterogeneous research groups that include women and ethnic minorities have been shown to be more robust and innovative than homogeneous groups. This promotes quality and innovation in knowledge production. A focus on gender and diversity perspectives in research will enhance the quality of research as well.

Competitive advantage

Women comprise 50 per cent of the talent that institutions compete for when recruiting for positions and academic communities in higher education and research. In addition, some people with a minority background are excluded for a variety of reasons. If women and ethnic minorities cannot be recruited, talent is lost and research quality is affected. This in turns weakens the competitive advantage of academic institutions as they work to develop their academic areas.

Source: Committee for Gender Balance in Research (Norway), eng.kifinfo.no (http://eng.kifinfo.no/c62457/seksjon.html?tid=62458)

Want to know more?

An opinion paper on the benefits of gender equality in research organisations is available online. It lays out how the effectiveness of gender equality work can be optimised and which benefits can be expected for the organisation.

Speaking notes

Below are examples of 'speaking notes' to support advocacy for gender equality. These short notes (usually not longer than two paragraphs) aim to provide convincing arguments to progress gender equality in universities and research institutions. They can be helpful, for example, when you have to quickly *convince a key staff member or colleague* of the benefits of working towards gender equality.

These notes are provided here for inspiration. They are tailored **to address different staff profiles including senior executives, managers and human resources teams**, etc. It is advisable to customise your own speaking notes and to make them fit your institution and the people you will be addressing.

Addressing senior staff

International comparison

'In (country A), 70 % of research organisations such as ours have set up a GEP, and their performance in dealing with gender equality is regularly assessed. They now consider investing in gender equality as a strategic issue and a matter of competitiveness and excellence. As do some research agencies, which included scores to that respect in their reference evaluation frameworks. We should follow that example, and anticipate on future trends in (country B).'

Liability

'As stated by law, our institution is responsible for preventing and reporting on cases of sexual harassment. In accordance with EU directives, our national legislation has become very clear on this matter. We have reported cases of sexual harassment, but have no procedures nor skills to comprehensively deal with it. This is most importantly terrible for the victims. But if we want to avoid potential legal liabilities, we should invest in prevention through dedicated procedures, mechanisms and staff training.'

Broader organisational change

> *'Our recruitment and internal evaluation procedures have been described as not being transparent by our policy authority. Meanwhile, our gender equality unit has detected gender bias in our recruitments and evaluations. Tackling the latter could be a good way in to challenge and upgrade our procedures!'*

Addressing managers

Valuing managers' contribution as agents of change

> *'Our institution has committed to high standards with respect to gender equality and our rector made a nice speech about this last week. And yet, without your knowledge of the organisation and of the people who work in it, we have no chance of success. As managers you are best placed to help us in detecting room for improvement, and to co-create and test effective solutions with us.'*

Internal stimulation

> *'Since our communication department adopted a gender-sensitive communication, our institution has been quoted as an example at the national level, female colleagues acknowledge that their work is better reflected and news about gender equality issues which are now more frequently displayed on the website are the most tweeted and shared on Facebook. It would be great to trigger the same dynamics in our departments and faculties and to engage in discussion with students.'*

Referring to specific cases of management

> *'If we look at it objectively, the case of harassment we had to deal with last year has been extremely costly for us. The case was largely commented on both within and outside the institution, we appeared to be insensitive and not proactive and eventually our liability was mentioned in legal proceedings. We knew this could happen. Let's start dealing with this seriously, by securing expertise, investing in prevention and providing assistance.'*

Access to funding and competitiveness

> *'Attention to the gender dimension in research content, gender balance in teams and gender balance in decision-making is extensively referred to in Horizon 2020 and this reflects in the current work programme. If we take this on board in our proposal it could increase our competitiveness and our chances of being funded. Researchers need to be involved in this process. We know about training sessions to support the integration of gender equality and a gender perspective in proposals. Let's create awareness among researchers and project managers.'*

Internal synergies

> *'Our department of sociology has a rich record of supporting work-life balance among its academic staff. Did you know that a small fund was created to support childcare for those with parental responsibilities who wish to actively participate in international projects and conferences? It contributed to changing the lens through which getting engaged in dissemination and other activities requiring mobility is perceived. Let's plan a meeting with their management and a few researchers to learn from their experience!'*

Addressing human resources management

Valuing human resources management as the key to any process of change

> *'Our institute applied for this gender equality scheme upon the initiative of our director. We have undertaken a series of commitments and emphasised the work of our gender equality unit. Our chances of being selected are high. We have to be conscious that we are expected to challenge some of our processes, notably regarding recruitment and career management. Our director and the team cannot make this change happen without the support, expertise and assistance of the human resources management department. And no action related to career management can be planned and undertaken without your knowledge of the institution. Should we establish a pilot group with your department to diagnose needs and potential challenges with respect to gender equality? We might also foresee how this gender equality scheme can fit with your current modernisation efforts regarding human resources management.'*

Securing gender expertise to increase knowledge

'Our data collection is quite exhaustive about aspects such as hiring, career breaks and access to life-long learning, etc. But except for staff categories, we produce little sex-disaggregated data. And yet, we know that career opportunities differ for our male and female staff, depending on the types of position, the scientific discipline and other factors. These differences are regularly discussed informally during talks with social partners, and management meetings in each department. It would be more appropriate to carry out a proper diagnosis to start solving potential issues from the actual situation, not from subjective perceptions or standpoints. Producing such a diagnosis requires external expertise. We have plenty at hand in the department of gender studies, including people working on career management and gender equality in the workplace. Shall we convene a meeting on this?'

Challenging bias in recruitment and appraisal

'We are very selective about the profiles of applicants. We try to value different skills and experiences and yet we tend to receive fewer applications from female candidates, and our female staff have slightly lower chances of being promoted. I think we should put this under consideration in the next review of our process. Perhaps an external audit would be useful to identify potential gender bias? Are our job adverts appealing irrespective of the sex of the candidates? Do we pay enough attention to career breaks and to different experiences in research and research management? Let's clarify this.'

Improving work-life balance

'Work environments which pay greater attention to work-life balance are reported to attract more talented researchers and staff and to retain them longer. The quality of time spent at work is also meant to enhance productivity and work relationships. Last but not least, as men and women still have to cope with family duties to different extents, improving work-life balance can help women move up the career ladder and give their full potential. We have developed new tools for selecting and evaluating people, and to help them develop their skills. And yet, we have paid little attention to work-life issues. A survey or a forum could help us in assessing whether this has had an impact, and to collect innovative ideas about gender-friendly work organisation.'

Addressing researchers

Mainstreaming gender knowledge among researchers

'As a research centre carrying out research on climate change, we participated in the international conference held in Paris. Policymakers and NGOs underlined the need to the address prevention and mitigation of climate change impacts from a gender perspective. This eventually materialised in the final agreement signed by 194 countries. We realised that nobody addressed this issue in our team, and that the societal impacts of climate change in general were under-investigated at our institution. We've learnt that cross-disciplinary workshops were organised by a local university to integrate gender in our fields of interest. We might consider hosting a session and strengthening our ability to address societal challenges and gender aspects in future project applications.'

'When planning our gender equality strategy, we realised that, across the university, gender was a core subject to nearly 10 % of ongoing PhD theses, and that gender was a relevant category for about 40 % of the theses currently carried out. And yet, outside of social sciences and humanities-related fields, we found little evidence of gender-sensitive research. Why could we not use the pool of knowledge accumulated in other fields or departments to irrigate other areas of knowledge? This would enhance transdisciplinary, inter-departmental cooperation and knowledge circulation. It might also benefit our success rate in accessing public funding, which tends to decrease with growing competition.'

Supporting women's contribution to knowledge production

'In a field like ours, laboratory experiments are time consuming, and international mobility is a prerequisite for a successful career. Women might both be given fewer opportunities to contribute their full potential, and be discouraged by external factors — such as work conditions or selection and appraisal criteria — to take their full share. If we do not change this, it is unlikely that our targets of improving sex balance in our institute will be ever met. More change is needed: we need to put in place active schemes to encourage women's participation in collaborative projects, and also as project leaders. This implies making mobility more inclusive and less costly. It may also require offering both women and men better integration of career breaks or longer leave periods in their scientific careers.'

Awarding gender-sensitive research

> *'Let's reward research projects or papers actively contributing to mainstream gender knowledge across academic disciplines. All fields should be encouraged to contest, and the call for participation should be put in a way that is also appealing to researchers working in technical fields. The same should apply to awards. The idea would be to make integrating gender an incentive for excellent and innovative research. Hence, the awards do not necessarily need to be related to gender issues or the research itself, but to the fields of expertise of the applicants. This is working well elsewhere. Why not here?'*

Addressing social partners

Improving working conditions by tackling gender inequality

> *'Gender equality is not only about complying with legal requirements or individual cases. It also sheds light on working conditions, all along the career path. Recruitment, appraisal, life-long learning, evaluation and career management tools: all these aspects can be considered from a gendered perspective and/or have (negative) gender impacts. Challenging gender bias can help us to challenge other biases about personal circumstances and unravelling intersecting inequalities.*
>
> *Gender equality matters for all categories of staff, beyond traditional cleavages between permanent and non-permanent staff, academics and non-academics, etc. It is an objective that can create engagement, but also resistances which are better overcome if mobilising social partners. A gender equality unit can be perceived as external to social dialogue, but actually it can be an ally. As we are designing a GEP, we would like you to be a full part of the process and share your knowledge about working conditions and work relationships with all mobilised stakeholders.'*

Enhancing social dialogue by achieving gender equality

> *'It depends on the context, but often dialogue with trade unions and other staff representatives can be quite formal. Whether it is framed by the law and/or by a collective agreement, there is not always space to assess the status of gender equality, nor to be innovative.*
>
> *As we are launching what is meant to be a modernisation of our processes and ways of doing things with regard to gender equality, let's use this opportunity. Let's use it as a tool for modernising our social dialogue, and making it more inclusive. In addition, gender biases or prejudices rely upon deeply entrenched stereotypes, which require new ways of sharing ideas and communicating with each other. Co-creation, experience-based or participatory techniques can help us to highlight problems and reach consensus about solutions.'*

3. Guide to structural change in academia and research organisations

3.1 How to set up and implement Gender Equality Plan

3.1.1 Steps

Step 1. Getting started

Understand the context

Rather than simply copying successful actions or others' approaches, it is better to ask which actions would work best in your own institution, considering its context. Which actions, pending some adaptations to fit local conditions, can be aligned with the institution's objectives and context? To this end, various elements of this 'context' may matter.

In the United States, research has been undertaken into the experiences and insights gained by the institutions that received ADVANCE institutional transformation awards from the National Science Foundation (NSF). One of the insights draws attention to the important role of context.

1. **Location**: the location of a higher education institution is relevant to the interventions that will be most effective and relevant. For example, policies to address the dual career needs of faculty members are likely to be much more important at institutions in rural settings, where the broader community may offer fewer employment options for partners than in an urban area.

2. **Economics:** the local or regional economic situation often affects institutional hiring opportunities and can affect the efforts of ADVANCE projects. For example, when an institution that has faced constraints on new hiring shifts into a phase of extensive hiring, the moment is particularly opportune to offer deans and department chairs support and guidance in equitable search and recruitment practices. At such times, the institutional interest in integrating new and effective strategies may be especially strong, and ADVANCE can make inroads by presenting the project as a source of support and help for institutional hiring goals.

3. **Institutional characteristics**: the list and examples below highlight an array of institutional features that create the stage upon which organisational change endeavours play out.

(a) **History**: the history of an institution affects what faculty and administrators think is important and what they perceive to be possible. Major events or problems can sometimes set the stage for administrators and faculty to see ADVANCE goals as important.

(b) **Size**: the size of departments and the institution overall can shape issues, needs and options. For example, in small departments, the array of senior faculty who can serve as mentors is also small, requiring innovative approaches to mentoring plans. Privacy needs may also be greater, and early-career women may also prefer to participate in mentoring relationships with colleagues from other departments in order to protect their privacy.

(c) **Leadership**: the goals, priorities, interests and styles of senior leaders are key factors in the success of ADVANCE projects. Changes in senior leadership, as occur frequently, can pose challenges and opportunities for organisational-change projects, requiring ADVANCE leaders to determine whether to adjust strategies to fit the new leadership context. Sometimes new leaders identify new issues to address; ADVANCE can sometimes be offered as a 'solution' that addresses issues identified by a senior leader.

(d) **Structure and governance**: whether an institution tends to be decentralised or centralised, and whether administrative structures are more flat or more hierarchical, are important contextual factors. ADVANCE leaders need to consider where to locate their offices, with whom to connect in the central administration and how to relate to governance bodies. Whether an institution is unionised or not is another important structural feature for planning.

(e) **Policies**: some institutions have a history of offering family-friendly and other policies that contribute to inclusive environments. Others do not. What is already in place thus affects the priorities for addressing policies as a lever for change.

(f) **Culture**: higher education institutions are each distinctive in the features that define what life is like at that institution, how work is done, and how change occurs. Some key cultural variables include whether the campus has a 'family' feel or a more 'business-like' ambiance, the ways in which administrators and faculty interact and the values that inform daily interactions.

All these characteristics are relevant to making decisions about which interventions to include or omit in an ADVANCE change portfolio, and about how to design those interventions for the best reception on campus (²).

Find support

Having an understanding about your context and the dynamics of your institution allows you to think where to find support within and outside the organisation.

1. Map actors that have expertise in gender equality. Besides providing relevant gender-related input, they may well act as activists to put actions in motion and help identify other actors.

2. Identify (potential) allies: consider top and middle management level, human resources staff and peer co-workers, among others. Try to spot those interested in and willing to promote gender equality change for a better, balanced and inclusive working environment. This will help you get things done and promote support for the future plan.

3. Find funding opportunities to set up and implement the GEP or to carry out specific actions. At EU level, the European Commission is funding institutional-change projects through Horizon 2020. At national or regional

level, there may also be similar initiatives that provide the financial means to promote institutional change. At an institutional level, there may already be measures in place to fund conferences that promote a gender-balanced composition of the speaking panels, or to finance research that integrates a gender dimension, etc.

4. Link up and seek which alliances can be made with regional and national networks on gender in research. Such networks exist and are important for your work.
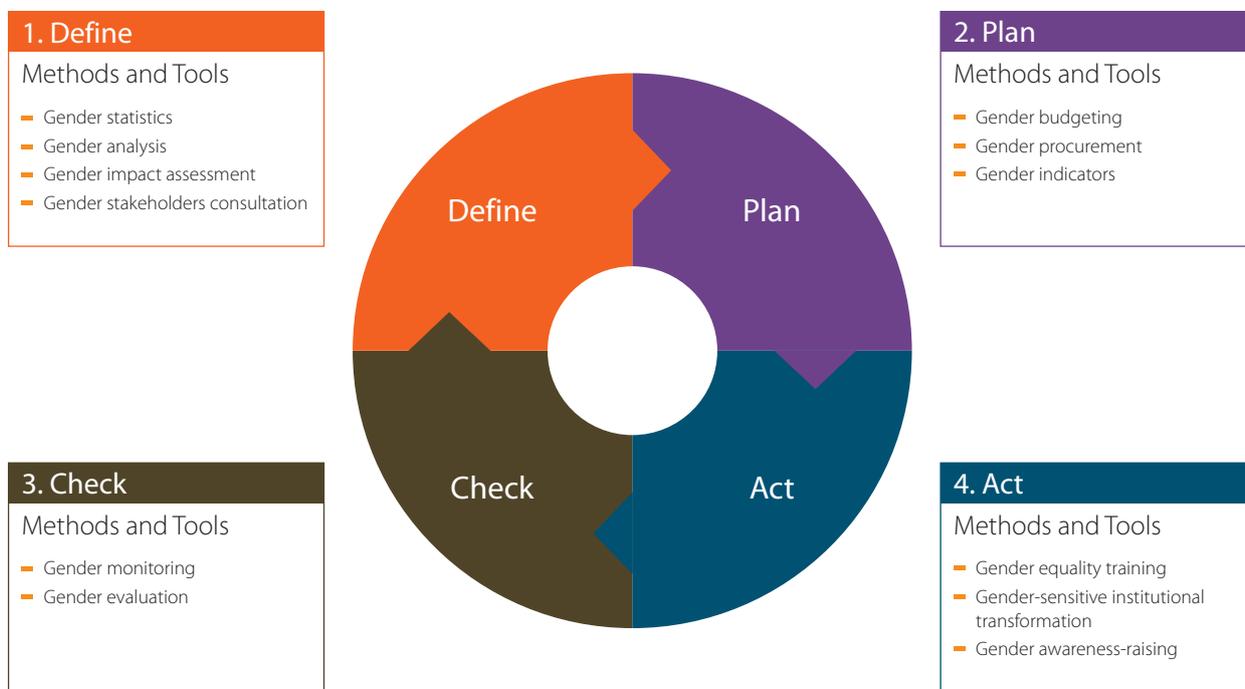
Understand the gender mainstreaming cycle

Having a clear overview of the gender-mainstreaming cycle will help you understand, in general terms, the steps to develop a GEP, how to put it in motion and how to live up to it. EIGE's gender mainstreaming cycle can be adapted to the specific context of research organisations and higher education institutions. Each phase corresponds to a step to develop a GEP:

Step 1. Define How to analyse and assess the state-of-play in the institution

Step 2. Plan How to set up a GEP

Step 3. Act How to implement a GEP

Step 4. Check How to monitor progress and evaluate a GEP

1. Define

Methods and Tools
- Gender statistics
- Gender analysis
- Gender impact assessment
- Gender stakeholders consultation

2. Plan

Methods and Tools
- Gender budgeting
- Gender procurement
- Gender indicators

3. Check

Methods and Tools
- Gender monitoring
- Gender evaluation

4. Act

Methods and Tools
- Gender equality training
- Gender-sensitive institutional transformation
- Gender awareness-raising

(²) The text presenting 'key contextual factors', is drawn from the following document: Austin, A. E. and Laursen S. L., (2015), *Organisational change strategies in ADVANCE institutional transformation projects: synthesis of a working meeting*, pp. 3-5. (available at: http://www.colorado.edu/eer/research/documents/workshopReportPUBLIC_113015.pdf)

Step 2. Analysing and assessing the state-of-play in the institution

The best starting-point for developing an effective set of actions is to collect in-depth information about how your organisation is doing regarding the promotion of gender equality. After assessing the state-of-play of your institution, you will know which measures need to be implemented. The comprehensiveness of this initial analysis will depend on the resources available. Make sure to assess the human and financial resources that you have access to in order to undertake this task. Identify internal assets (e.g. gender experts), but consider other possible external resources as well (e.g. funding, local partnerships).

The standard approach that can be followed includes the following.

1. **Reviewing relevant legislation and policies in your country**

   It is useful to know the general legislation and policies pertaining to gender equality and non-discrimination, as well as those that are specific for the fields of labour market and research and/or higher education.

   Reviewing the legal and policy frameworks will allow understanding where your organisation stands. It will back up your rationale to support your actions. This knowledge can also support some of the measures of the GEP you will set up.

   For example:

   (a) when your country sets targets at policy level, this may provide you with arguments to convince your colleagues and senior management that measures are needed in your organisation;

   (b) it may be that your institution can join an existing initiative, like a 'girls in science day'.

2. **Analysing sex-disaggregated data about staff and students**

   Data broken down by sex is needed to detect any gender differences. Analysis of sex-disaggregated data will provide crucial information for identifying the most pressing areas requiring intervention. For example, when your analysis reveals that the gender balance is particularly distorted in certain disciplines, efforts may be directed to attract the under-represented sex to these areas.

   The first step is to check which data are readily available. If such data do not yet exist in your organisation, efforts to collect them need to be made. As soon as you have access to the data, you need to carry out a statistical analysis.

Data to be analysed include (not limited to):

(a) staff numbers by gender at all levels, by disciplines, function (including administrative/support staff) and by contractual relation to the organisation;

(b) average numbers of years needed for women and men to make career advancements (per grade);

(c) wage gaps by gender and job;

(d) number of women and men in academic and administrative decision-making positions (e.g. boards, committees, juries);

(e) number of female and male candidates applying for distinct job positions;

(f) number of women and men having left the organisation in previous years, specifying the number of years spent in the organisation;

(g) number of staff by gender applying for/taking parental leave, for how long and how many returned after taking the leave;

(h) number of absence days taken by women and men according to absence motive;

(i) number of training hours/credits attended by women and men;

(j) number of female and male students at all levels and for all disciplines.

Need inspiration?

1. *She figures* is the main source of panEuropean, comparable statistics on the state of gender equality in research and innovation. You can look at the same dimensions covered in order to compare how your organisation is doing in relation to your country and to the EU. *She figures* is published every three years. The accompanying *She figures handbook* provides methodological guidance on the calculation of indicators included in the *She figures 2015* publication.

2. The EU-funded structural-change project Effective gender equality in research and academia (EGERA) compiled the *First gender equality report*. This report aimed at understanding the state of affairs related to gender equality and equality matters in the participating institutions by examining available data, information and policies in partner institutions. The following areas were covered: (i) human resources and career management, including employment and promotion, (ii) work-life balance and work conditions, (iii) gender-based offences

and violence, including gender-based mobbing and harassment and (iv) gender in research and curricula.

3. The EU-funded structural-change project Institutional transformation for effecting gender equality in research (INTEGER) provides some practical tips for getting to know your institution through the collection of data and by carrying out surveys. For instance, how to organise methods, surveys, site visits and/or focus group discussions; how to collect that information (e.g. several units can be contacted to enquire about available sex-disaggregated data); and who can be involved in this assignment (e.g. think about the human resources unit, the quality assurance unit and also the research evaluation unit).

4. The University of Beira Interior has been consistently assessing the same indicators since the initial assessment of the state-of-play of the institution (from 2011 until the present). Consult the approach followed and the indicators used here.

Identifying the existing measures promoting gender equality

The existing measures to promote women, to sensitise about gender equality, to enhance work-life balance, etc. will need to be inventoried and mapped. The implementation and results of the existing measures will need to be critically assessed, together with those involved, seeking how their effectiveness can be enhanced.

Complementary to the standard approach, you can consider carrying out the following.

1. A data analysis that integrates other dimensions, such as age, ethnicity, disability, sexual orientation and religion. It is important to understand the intersections between sex and other dimensions, as multiple discriminations can occur and needs to be tackled. However, be mindful of data-protection issues when staff numbers with particular intersectionalities are very small, leading to data linking and disclosure issues (i.e. if there is only one black, disabled or Muslim woman on staff for example).

2. A literature review about gender equality in research, teaching and higher education. The purpose of reviewing existing literature at European and international levels is to learn about, among others, gender stereotypes in research and teaching, current inequalities in research and higher education settings, and measures or actions to tackle such problems. Have a look at some key resources here.

3. A survey among staff members to assess their knowledge about and experiences of gender (in)equality in the institution, organisational practices promoting gender equality, sexist attitudes and behaviours, etc.

4. Interviews or group discussions with representatives of all levels of staff and/or covering different disciplines. The interviews can cover some of the aspects mentioned above, but can also probe the staff's perception about the need and level of acceptance of gender equality measures.

Who can do this analysis?

If your organisation has a structure whose mandate includes responsibilities in support of gender equality (e.g. gender equality office/unit), the staff members of this structure could take on the task of performing the initial assessment of the gender equality state-of-play of your organisation. You can also involve (elected) representatives of staff. Do not forget to involve gender experts working in the institution. They can provide valuable insights and/or be involved in this exercise.

When such structure does not exist, or when it cannot take on this task, you might consider putting together a small team to undertake this baseline assessment. The team can be composed of members from the gender equality structure, teaching and/or research staff, as well as members from the human resources department.

In both above-mentioned cases, having an explicit mandate from top management to undertake a baseline assessment is essential to dedicate time, open doors and obtain cooperation.

The tasks of each team member need to be agreed on and made clear from the very beginning. Sufficient (human and financial) resources are key to successfully analyse and assess the state-of-play regarding gender equality in your organisation. Furthermore, having an explicit mandate from top management to undertake a baseline assessment will help open doors and obtain cooperation.

At this stage, it is already worth having an idea about the staff members that may be involved in a GEP.

Step 3. Setting up a GEP

After carrying out an initial assessment of the gender equality state-of-play in your organisation, you can start setting up the GEP. The findings of the initial analysis allow identifying the areas of intervention to be addressed in your GEP. However, not all areas can be tackled at the same time, and some may be more pressing than others. Set out the priorities for your organisation considering this initial assessment as well as the available resources. Consider bringing together members of the team who carried out the initial assessment in the development of the GEP. At this stage, it is crucial to involve senior management and leadership posts in the definition of the measures of the plan. Their

involvement will ensure a smoother and more effective implementation of the proposed measures.

When developing the GEP, keep in mind that it needs to be **holistic and integrated**. This means that the identified areas of intervention are interdependent. The plan will address a variety of issues relevant for the whole community and organisational system. There are a few basic elements to be considered when setting up the GEP:

1. objectives
2. measures
3. indicators
4. targets
5. timeline
6. division of responsibilities.

Below we explain how these elements are taken into consideration in the process of setting up a GEP.

1. **Promote the participation of actors of all levels when defining measures and actions of the GEP.**

   You can envisage joint or separate dynamic workshops with senior management and leadership posts, human resources and communication staff, teaching and/or research staff, students, among others. You can use participatory or serious gaming techniques.

   Try to understand the meaning of gender equality for these groups. Some formulations may cause discomfort or resistance. For instance, 'attracting more female researchers' for a certain discipline may be identified as a priority. However, this kind of sentence can pose challenges or cause resistance. The text of a measure can, on many occasions, be adapted in order to address the institution's priorities while considering certain susceptibilities. For example, using the expression 'attracting talent' may be more widely accepted by the organisation's community. The meaning of certain concepts in the national language may play a role as well. Some terms may be less well received. For instance, the term 'gender balance' is used in some countries in order to increase cooperation and interest.

   A participatory approach will help in defining meaningful measures for the actors involved, while respecting the organisational culture. It will boost the actors' willingness to implement the measures set out in the GEP.

2. **Get inspiration from measures implemented by other organisations**, but always consider your own institutional context.

   There is no need to reinvent the wheel. There are very good and successful examples of measures and actions implemented by other organisations. However, a direct replication of such measures can be ineffective in your

institution. It is important to assess the context in which these were carried out. Make sure to adapt these measures considering the specificities of your own context. Check the action toolbox for structural change to get some inspiration on the areas that can be covered in a GEP. Additional examples are also provided here.

3. **Define SMART objectives and measures for your plan.**

   The objectives and measures of your GEP are more likely to be successfully implemented if they are SMART.

   (a) specific — the objectives and measures should answer to basic questions: what, why, how, who, when and where;

   (b) measurable — establish quantitative and/or qualitative indicators and respective targets;

   (c) attainable — make sure the objectives and measures are not out of reach and that they can be achieved (even if requiring more effort);

   (d) realistic — ensure that the objectives and measures are relevant for the organisation and that they are feasible within a certain timeframe and within the available resources;

   (e) time-related — indicate when the objectives and measures can be achieved.

   Remember that the EU emphasises the importance of targets for gender balance in decision-making in research. The Council of the European Union invited the Member States and institutions to strive for guiding targets for a more even gender balance for professors. The Council encouraged authorities to set up guiding targets, for example quantitative objectives, for a better gender balance in decision-making bodies including leading scientific and administrative boards, recruitment and promotion committees, as well as evaluation panels. Have a look at the Council conclusions on advancing gender equality in the European research area (adopted in 2015) to know more about these targets.

4. **Identify and utilise existing resources when planning the measures.**

   The financial and human resources made available for gender equality work are usually scarce. Working in such conditions can be very challenging. Identify existing resources that can serve the measures you are setting up. Sometimes, small changes in existing procedures or services will help in attaining the objectives set out without additional costs or much effort. Building on existing resources also has the advantage of promoting

the institutionalisation of gender-sensitive and/or gender-specific procedures or activities.

See the following examples.:

(a) 'On-the-job training' programmes are usually offered by organisations. An initial mandatory gender training could be offered within this programme at the beginning of each (academic) year in order to build capacities of newly appointed staff or to recycle the knowledge and/or competencies of other staff members.

(b) The drafting of new (or renewing) organisational strategic documents is an excellent opportunity for integrating gender-sensitive or gender-specific measures in those documents.

(c) When planning the conferences to be held by the organisation, make sure to include a provision requiring a balanced representation of women and men in the panels.

Need inspiration?

The EU-funded project Structural transformation to achieve gender equality in science (STAGES) shared its experiences regarding the integration and institutionalisation of gender equality in the organisations' strategic documents, provisions, and procedures. The *Guidelines for structural transformation to achieve gender equality in science* (pp. 42-45) provide some relevant points.

More examples of awareness-raising and capacity-building activities can be found in the action toolbox.

1. Define the timeframe of the GEP, as well as a realistic timeline for its implementation. The overall duration of the GEP needs to be defined (e.g. three years). Considering the proposed measures and the resources available, define the timeline to execute each of them. Do not forget to establish specific monitoring periods to report on the progress achieved.

2. Agree on clear staff responsibilities for each measure. An agreement needs to be made on the team that is going to be involved in the implementation of the GEP. After having decided on the staff members that will collaborate on this assignment, clear responsibilities need to be defined. The GEP should clearly indicate 'who is responsible for what and when'. Here are recommendations on who to involve in the GEP and what the role of these actors can be.

3. Build alliances. The GEP may include innovative and effective measures, but these will not work out if the plan is not supported by stakeholders at all levels. Engaging stakeholders is primordial during the set-up phase. The

plan needs to be understood as something more than a piece of paper. Invest time in explaining the benefits of gender equality in research organisations. Adapt your speech according to the profile you are addressing. Take the time to explain what is in the GEP for targeted stakeholders, from top to down, down to top and from the outside. Please note that these efforts need to be continued throughout the implementation of the plan.

Need inspiration?

1. Check out examples of 'speaking notes' to support advocacy for gender.

   The EU-funded project STAGES shared its experiences regarding the engagement of leadership. The *Guidelines for structural transformation to achieve gender equality in science* (pp. 35-39) provide some relevant insights.

   (a) align the GEP to the emerging strategies and key policies of the institution;

   (b) involve individual leaders directly in the plan as active players and not just as institutional counterparts;

   (c) involve external organisations and experts in order to increase the visibility of the plan within and outside the institution so that the engagement of leaders is enhanced.

   Here is a visual representation of the Transformational Gender Action Plan Wheel adopted by the French research organisation CNRS (Centre National de la Recherche Scientifique).

2. Start thinking about sustainability. The resources to promote structural change towards gender equality are not unlimited and neither is the duration of your plan. The changes to be implemented are expected to have a long-term impact. To ensure the sustainability of gender equality actions, it is important to embed practices in the normal routines and procedures of the organisation. This can be done by changing existing routines and procedures in the institution or by structurally complementing them with new ones.

Keep the following in mind:

1. The set-up phase can be the most challenging and time-consuming phase. Attempting to build a GEP that is meaningful for the whole organisation will require efforts and will take time. But there is a moment when you need to move on!

2. A GEP is not static: it evolves on a continuous basis. The organisation, the people and the priorities can change drastically from one moment to the other. Be flexible. The negotiation of the meaning of gender equality in

relation to the different actions and stakeholders involved is a constant process.

3. Work towards an organisational culture that is sensitive to a variety of gender identities. Avoid the trap of adopting a heteronormative approach or an understanding of gender as a dichotomy: women-men.

4. Engaging stakeholders is an unceasing activity: it starts with convincing senior management and leadership posts to have a GEP for the organisation, but it doesn't end there. Keep on engaging actors in order to build stronger alliances.

> *'Devoting too much of the available time to planning is probably counterproductive. Even after careful planning, so many things change rapidly (and go on changing continuously), that it is better to start after a basic appraisal, not to waste precious time. ' (Marina Cacace, ASDO (L'Assemblea delle Donne per lo Sviluppo e la Lotta all'Esclusione Sociale), evaluator of the EU-funded STAGES project.*

Step 4. Implementing a Gender Equality Plan

After the GEP is set up, it is ready to be implemented. Put the measures of the GEP in motion according to the defined timeline. Try to embed and institutionalise as many measures/actions as possible in order to ensure their sustainability.

Organise regular meetings with the team responsible for the implementation of the GEP. These meetings are not only important for designing and planning activities in a participatory way, but also for discussing the progress, main achievements and aspects that can be improved. This will allow identification of possible problems and acting proactively upon them.

Plan meetings with senior management and leadership, human resources staff or other co-workers that you consider relevant. This will help:

1. creating ownership of the Gender Equality Plan;

2. motivating the staff involved;

3. strengthening the potential of the plan;

4. maximising the impact of the plan's actions.

You may consider organising an initial training session for the team responsible for implementing the plan, and for other targeted audiences directly involved (e.g. managers, human resources staff). Continuous awareness-raising and competence-building efforts will maximise chances for success and institutionalisation. For example, during the implementation of the GEP, you can provide personalised coaching, organise additional awareness-raising sessions, run campaigns on selected topics or plan workshops to build specific competences.

Continue engaging stakeholders on an ongoing basis. Explain the benefits of gender equality in research organisations. Always adapt your discourse according to the profile you are addressing. Do not forget to keep in touch with stakeholders that you engaged in a previous phase. This will also provide you with insights about the measures implemented or on how to improve the actions to be carried out.

Keep the following in mind:

While the start can be modest, the scope and spectrum of activities may gradually expand over time. At the same time, the circle of allies and engaged stakeholders may also grow.

Give visibility to the Gender Equality Plan

Inform the organisation about the existence of the GEP. Use different channels to communicate about the plan, its main areas of interventions and timeframe. It is paramount that the GEP is made available and easily accessible to the whole community on the institutional website. It can furthermore be useful to organise a public session to present the GEP to the organisation's community. The participation of senior management and leadership posts in this initial presentation can support the implementation of the plan's measures. Communication actions are crucial to give constant visibility to the GEP.

1. Develop key messages tailored to different target groups.

2. Advertise activities in advance using adequate channels in order to ensure good participation rates.

3. Instigate the whole community to take action by suggesting how others can contribute.

4. Promote external events (e.g. conferences) or interesting information from beyond the organisation about integrating gender equality in research institutions and universities.

5. Report on the progress towards gender equality in the institution on a regular basis (according to the monitoring moments established in the plan). The monitoring exercises will provide insightful information about the progress achieved by the organisation. Share key messages about these findings to the organisation's community and provide online access to the full reporting publications and/or data.

Need inspiration to develop and share key messages about the plan and its achievements?

The EU-funded structural-change project INTEGER shared some insights and examples about developing and disseminating key messages during the structural change process. Check them out! http://www.integer-tools-for-action.eu/en/resource/sharing-your-results

The University Alexander Ioan Cuza (UAIC, Iasi, Romania) was a partner of the EU-funded structural-change project STAGES. A team of communication specialists http://stages.csmcd.ro/index.php/communication was put together to increase the public visibility of the scientific performances of women researchers and to publicise and disseminate gender equality actions promoted at UAIC. See the main external communication activities and the top 10 communications products at UAIC http://stages.csmcd.ro/index.php/media.

In the context of various EU-funded structural-change projects, websites and Facebook accounts have been set up. Active use of other social media channels is also made (like Twitter and LinkedIn, where groups can be created). Have a look, for example, at the social media channels mobilised by the EU-funded Garcia project. http://garciaproject.eu/

Consider involving the communications department of your organisation in this task. They can actually have an important role in gender equality structural change. They can:

1. ensure the use of gender-neutral language in internal and external communication;

2. ensure the use of non-stereotypical and non-sexist images in internal and external communication;

3. mobilise the available communication channels to promote the actions undertaken within the framework of the GEP;

4. communicate about the progress of the organisation towards gender equality on a regular basis.

Need inspiration?

Take a look at Unesco's *Guidelines on gender-neutral language* http://unesdoc.unesco.org/images/0011/001149/114950mo.pdf

The EU-funded project STAGES shared its experiences regarding communication and visibility. The *Guidelines for structural transformation to achieve gender equality in science* (pp. 51-54) provide some relevant insights:

1. Carry out a preliminary mapping of communication resources (e.g. website, social media, newsletter, networks and associations, national and local media, partners' communication channels, or internal and public events).

2. Define a communication plan extensively adopting internet-based communication tools, as well as face-to-face interactions to reach certain target audiences.

3. Develop attractive messages.

4. Consider setting up a specific communication group (e.g. Communication Group on Women and Science).

5. Devise a promotion campaign at internal, local and/or national level about the organisation's GEP in order to instigate the public and political debate about gender equality.

6. Make women's contributions more visible.

   Have a look at the European Commission's campaign website 'Science it's a girl thing' (http://science-girl-thing.eu/en) as well as at the EU-funded project Hypatia (http://www.expecteverything.eu/hypatia/) and at its very active Facebook® page: https://www.facebook.com/expecteverythin/.

Be aware that adjustments to the plan may be needed

The GEP is not static or unchangeable. Several circumstances may require modifications to the plan, such as changes in the structure of the organisation (e.g. due the appointment of new senior managers), or the introduction of new legislation or policies that apply to research organisations and/or universities. In addition, the priorities of the organisation may also change during the plan's timeframe. Closely follow such events and discuss with your team whether and how the GEP can be adapted.

Despite the efforts undertaken to develop a robust plan, other pressing issues may arise in the organisation during its implementation. Try to understand the reasons why certain measures are not being implemented and make adjustments if needed. Keep up-to-date with innovative actions that were used in other organisations.

Need inspiration?

Take a look at the most common and innovative practices in selected institutions mapped by Gender-Net.

Be prepared to face obstacles or resistance when implementing certain measures, and act upon them.

Do not forget to follow up the implementation of the measures of the GEP. There may be important lessons to be learnt from the regular monitoring exercises. Listen to the feedback of those organising or participating in particular activities (e.g. through exit questionnaires). This will give pertinent hints on how to improve operational and/or content-related issues of the activities or the plan.

Step 5. Monitoring progress and evaluating a GEP

Monitoring and evaluation as part of the change process

A GEP is meant to address several issues at once, and to rely upon a complex set of measures. Hence, from its earliest stage, monitoring and evaluation instruments must be foreseen. Such instruments allow others to assess the progress that is made towards targets, based on indicators. Monitoring and evaluation instruments are however often lacking, which undermines the transformative potential of planned actions. If objectives are not indexed on relevant progress, success or outreach indicators, it is difficult to assess whether the organisation is being actually transformed. This might also reduce the commitment of stakeholders towards those objectives.

For these reasons, monitoring and evaluation instruments are firstly to be seen as tools supporting effective actions and creating accountability. Secondly, by providing indicators against which actions can be assessed and resources allocated, they also enhance knowledge of ongoing changes.

Baseline assessment (or 'ex-ante evaluation')

Evaluation is often conceived only as *ex-post*. Yet, GEPs are better designed if relying upon a comprehensive assessment of the status of gender equality at that point in time. This assessment can take different forms. An audit can be carried out with the support of external and impartial expertise. Internal knowledge about gender and the institution itself can also be mobilised. Different tools can be used for investigating gender inequalities, bias and imbalances at all levels, including pilot studies, surveys, focus groups, interviews or ethnographic observation. Have a look at the section on 'analysing and assessing the state-of-play in the institution'. GEPs carried out with appropriate resources and expertise, such as those supported by the European Commission, often draw on comprehensive diagnoses. As a result, actions are planned starting from the knowledge of actual situations and processes. They are also more tailored to the needs of the institution.

Additionally, *ex-ante* evaluation, by drawing attention to gender-related issues, helps in securing support, raising awareness and mobilising stakeholders. It has the potential to give voice to stakeholders who are not in a position of advantage, and to create support for changes. Open, collaborative processes, involving different categories of stakeholders, can help in building consent around the diagnosis of the situation, and foreseen solutions.

Legal requirements often exist to gather basic data on gender equality in research and higher education institutions (e.g. on the number of women and men in professorship positions). These efforts are usually formal. However, they may already provide a baseline for the analysis. Therefore, *ex-ante* evaluation should integrate existing instruments in order to increase its legitimacy and make the most of available data.

Monitoring implementation

Monitoring actions once they are under way is key to informing about how they address actual needs, and effectively support change. GEPs should mobilise a large number of different actors within the organisation. It is deemed important for those who pilot actions to have a good command of what is going on. Monitoring not only enables checking if and how actions are being implemented, it can also indicate whether or not a transformative dynamic is going on. Well-thought out monitoring mechanisms can help in identifying and addressing potential sources of resistance to change. Last but not least, a virtuous cycle can make monitoring tools part of a continuous enhancement process.

As such, these instruments can be both part of the piloting of the actions, and external to it, in order to grant implementation both with a sight on overarching goals, and a more distant stance on the actions. In all cases, gender expertise will be required, potentially along with other expertise on change dynamics or other specific issues tackled by the GEP.

Actions can thus be regularly monitored by setting up appropriate indicators and follow-up instruments. Indicators should be implementation-orientated, and adapted to the purposes of the action. Actions aimed at increasing the participation of women in senior positions should not only be monitored by looking at figures, assessing the enrolment in supporting schemes (such as training, mentoring or reserved fellowships) and their impact on the actual gender balance is also relevant. But indicators on the transparency of recruitment, promotion and evaluation procedures are also needed. Similarly, when tackling gender-based violence and sexual harassment, assessing reported cases and the functioning of alert and resolution mechanisms should not be the only concern. Checking how actual cases are qualitatively dealt with can effectively support action, and measuring how a gender-sensitive culture is developing in the organisation, for instance by means of a periodic survey, can also effectively support action.

> *'Monitoring sessions with core and/or extended teams, in our experience, are crucial moments of self-reflexivity about the processes which have been set in motion, and how to strategically steer the project to achieve more.' (Marina Cacace, L'Assemblea delle Donne per lo Sviluppo e la Lotta all'Esclusione Sociale (ASDO), evaluator of the EU-funded STAGES project)*

Evaluation to be context-sensitive

Evaluation is taking an ever greater place in research organisations and higher education institutions. These institutions' overall performance with regard to management, financial health, innovation and outputs are increasingly evaluated. Evaluation has often become key to access public funding, and international rankings play a major role in the strategies of research organisations. Researchers themselves are not immune to evaluation and beyond peer-reviewing, their achievements are being scrutinised along different scales. But evaluation is not only meant to support scientific excellence, actions aimed at transforming research institutions to prevent gender bias, including in the way researchers are being evaluated, also need to be assessed.

Such assessment should take into account context-specific features, such as, but not exclusively:

1. the type of organisation;

2. the research areas covered by the planned actions;

3. who is involved and targeted by the process of change;

4. the existence of prior gender or other equality policies;

5. the current status of the organisation: is it going through a broader process of change?

Quantitative indicators

Quantitative indicators are relevant whenever they are adapted to the objectives of the planned actions. It is widely acknowledged in research on evaluation that there is no evaluation, and hence, indicators, that can fit all situations. Quantitative indicators most often include:

1. the number of female candidates for positions in which they are under-represented;

2. the number of women and men in selection panels (for recruitment and promotion);

3. horizontal sex segregation in respective categories of occupation;

4. the number of individuals targeted and reached by gender awareness-raising or training actions planned;

5. gender ratios in accessing research grants (and other resources, e.g. laboratories or personnel);

6. the gender pay gap among different categories of staff, including researchers.

This list is by no means exhaustive, and indicators can also be set to measure respective positions of men and women in relation to work-life balance, leave and evaluation scores, etc. Such indicators help in building accountability for the successes or failures of implemented measures. They also create perspectives.

However, alone, they are either not very predictive for long-term transformations, or changes that can be steady and collateral to the main objectives. Transforming complex organisations, challenging the processes, routines and power relations that contribute to shaping the distribution of positions among researchers, takes time. This scale of time is not necessarily the one ascribed by the evaluation. Hence, attention must also be paid to short-term and mid-term milestones and potential achievements.

Changes in the prospect of greater equality are only possible with the support and engagement of key stakeholders and of a large part of the community. Evaluation should thus support existing dynamics and help in measuring and addressing the successes and challenges that are likely to emerge along the way.

Qualitative indicators

Quantitative indicators are not enough; qualitative indicators are also needed. Those may look at dimensions such as the following.

1. Mainstreaming of gender knowledge and awareness among the different categories of staff, including researchers. This can be measured for instance by the relevance given to knowledge creation on gender equality within the institution, its institutionalisation (in the form of dedicated programmes or departments), the dissemination of such knowledge across disciplines and research areas, to be evidenced by seminars and research projects with a gender component, etc. As regards gender awareness, the attention given to gender by different categories of stakeholders, through communication initiatives, codes of conduct, activities centred on gender-related aspects can also help in evidencing changes.

2. The uptake of the gender equality objectives set by the GEP by different categories of stakeholders, to be for instance reflected in the different framings of gender inequalities within the organisation and their evolution towards a greater gender awareness.

3. The actual transformation towards greater gender sensitivity of both formal and informal practices as the effect of implemented actions, notably in the areas of human resource management, decision-making, evaluation and governance.

4. The diffusion of a gender equality culture in terms of work conditions, verbal and non-verbal interactions, so as to reflect changes regarding the management of

work-life balance, awareness on sexual harassment and other aspects of gender-based violence and non-sexist communication.

Qualitative indicators can contribute to a better knowledge of the process of change itself. They may bring evidence that change happens and that gender equality and awareness are not out of sight.

Qualitative indicators have also a stronger learning potential. They support self-reflexivity and may provide indications for a continuous enhancement of the implemented measures and actions.

Resources for sound monitoring and evaluation

Have a look at the section on 'analytical measures, monitoring and evaluation', where resources for sound monitoring and evaluation are indicated. These resources draw upon the experience of EU-funded projects and complex gender-mainstreaming strategies. They have also the potential to be replicated in a variety of contexts.

Yet, each organisation operates in a different institutional and disciplinary context, and is confronted with different challenges concerning gender equality. Hence, it is wise to reflect upon the actual conditions for available indicators, to be used meaningfully in your own institution. Similarly, in those contexts where expertise is available either from public or private structures, it is useful to mobilise the expertise of external evaluators for gender audits and/or *ex-post* evaluation of implemented measures. When drawing upon external expertise on evaluation, it is recommended to bring together external evaluators with people in charge of implementing change within the institution, so as to co-design monitoring and evaluation instruments adapted to your goals and constraints.

Need inspiration?

In order to support higher education and research Institutions in assessing their GEPs, the EU-funded structural-change project INTEGER prepared a number of ready-to-use templates http://www.integer-tools-for-action.eu/en/resource/assessment-toolkit, such as:

1. a checklist for the preparation of self-assessment that gives an overview of the relevant steps to take in the preparatory phase of the assessment of the GEPs;

2. a data monitoring template which aims at facilitating the regular collection of sex-disaggregated data on the representation of women and men in different staff categories and decision-making bodies in the organisation;

3. a context report template, a process report template and an impact report template for analysing qualitative and quantitative data;

4. a self-assessment report template which is aimed at supporting the writing of the final report, providing a structure and a list of suggested issues to address.

Evaluation as the key to sustainability and further enhancement

Ex-post evaluation of gender equality initiatives is often lacking. This considerably undermines the potential of gender mainstreaming. Evaluation not only provides evidence of actual changes or failing attempts, it also enlightens the positive dynamics brought by gender-mainstreaming strategies, and the opportunities they bring. Beyond the objectives ascribed, implemented measures are likely to produce positive side-effects:

1. a strengthened sense of community, more transparent recruitment, appraisal and evaluation procedures;

2. Stronger pluri-disciplinarity in research;

3. Improved working conditions.

Assessing the impact of these short-, mid- and long-term transformations is an opportunity to enhance the support FOR gender equality policies. It also paves the way for future, even more resolute actions, and offers valuable knowledge for their design.

A thorough, context-sensitive and mixed evaluation approach should not overburden, but help your strategy to make a difference.

Step 6. What comes after the GEP?

A GEP will be concluded at some point in time. However, this is not 'the end' of promoting gender equality in your organisation. You are now entering a new cycle. Based on findings from the evaluation of the plan it is possible to draw conclusions regarding the progress made towards achieving gender equality in the institution. It is likely that the sustainability of some measures and procedures is already ensured, whereas others may still require further action. In addition, the final evaluation may have identified new areas that require attention. This is the point where you decide how to continue the efforts undertaken so far and what a new GEP should address:

1. take into consideration the lessons learnt from the previous experience(s);

2. benchmark what other organisations have done or are currently doing (and adapt their measures and actions to your own context);

3. continue to engage (new) stakeholders;

4. think about how to make your measures and actions sustainable.

3.1.2 Basic requirements and success factors

A number of elements can be pointed out as supporting gender equality work in research organisations and higher education institutions. These are impact drivers for effective change. When these impact drivers are present in the organisation, the efforts towards gender equality are more likely to succeed.

Impact drivers at organisational level

Senior management support

Explicit and clearly communicated support and backing from the top of the organisation provides legitimacy to the gender equality work. This legitimacy in turn offers the perspective of integrating the changes sustainably into the internal procedures and systems. It also significantly reduces the chances that gender equality initiatives are opposed. When the top expressly supports gender equality, it is easier to mobilise all components, levels and communities, as well as resources, within the organisation. Support from the top can reduce individuals' fear that they might harm their scientific reputation by engaging with gender equality work. When referring to the 'top', the central governing bodies and people in decision-making positions are meant: (vice) rectors, (vice) chancellors, deans, presidents or executive directors.

A well-equipped and well-located gender equality body

Such a central structure coordinates and monitors the gender equality efforts that are undertaken. It provides gender mainstreaming with human resources, knowledge and expertise. Its clear mandate and location in the institution is important. It has to be located at the appropriate level so as to effectively support the implementation of the gender equality work. Proximity to decision-making, capacity to inform human resources and scientific management offer better guarantees for effective implementation. Knowledge (among others, sex-disaggregated data) is key to equipping these bodies. It is also important that gender equality bodies exert some leadership on gender-mainstreaming implementation, with the support of executive bodies.

Cooperation among different categories of stakeholders

Cooperation among stakeholders is paramount to achieving sustainable changes in all components of the organisation. Building alliances with key stakeholders is not sufficient. Broader networks between the organisation's units, spanning different organisational and/or disciplinary sub-cultures, are also necessary. A clear distribution of tasks and responsibilities among stakeholders must however be ensured. Connecting stakeholders inside the organisation can furthermore be usefully complemented with external alliances. The more widespread stakeholder support is, the more resilient the change efforts.

Embedding into existing structures and management procedures

Anchoring gender equality provisions into existing structures and practices ensures institutionalisation and strengthens the sustainability of planned measures. For instance, measures targeting recruitment and appraisal should be incorporated in broader recruitment and career management procedures. Similarly, gender-training initiatives are more likely to be institutionalised, if incorporated in broader training or life-long learning schemes. Monitoring instruments, in the forms of quantitative and qualitative indicators or regular surveys, gain relevance and sustainability when incorporated into routinised management procedures.

Impact drivers at process level

Stakeholder involvement in planning and implementation

Stakeholder participation in planning and implementation is key, as it creates feelings of ownership. Collaborative planning processes yield measures which are likely to yield a greater impact. Bringing together different stakeholders (including decision-makers), with different expertise and types of knowledge about the functioning of the organisation, is productive. It helps in building more targeted policies, anticipating potential resistance and pursuing greater acceptance and support. A mixed team (in terms of positions within the organisation, genders, seniority or disciplinary backgrounds) can also more easily initiate strategies for gender equality that permeate the whole organisation. A collaborative process provides time for dialogue, clarifying objectives and responsibilities, thus generating synergies and increased legitimacy and ownership for the implementation of proposed measures.

Clear targets and objectives

In a first step, gender equality needs to be framed as a meaningful issue, relevant to the whole community, and providing an explanation of what a GEP is and entails. Being *practical* and *concrete* in formulating objectives and setting targets can effectively support the ownership of the strategy by the whole research community. Objectives should not (only) be long term, but also short and mid term, in order to better account for failures, successes and challenges. Gender equality planning should thus be driven by clear objectives and targets, defined for each planned measure and/or intervention area, along with clearly ascribed responsibilities with regard to their attainment.

Flexibility and resilience

Whereas clear targets and objectives indicate the orientation of the actions, there is a need to adopt a flexible approach on how to reach these goals. A balance needs to be found between planned activities and the actual shape of the project after some time. A key to success is the ability to adapt and reinterpret the plan in cooperation with the growing circles of stakeholders that the key team manages to involve.

> *'Action plans were designed before the starting date of the project, while an executive and more detailed planning was made in the first period of implementation and repeated at the beginning of each year. What clearly emerged is that the* **action plans constantly needed adaptation and redesigning** *to keep the project relevant to the emerging contextual situations, needs and priorities of the organisations. In some cases,* **redesigning was key to the success of the action plan***, since the team succeeded with time and experience in grasping the real triggers for change and arranged actions and resources accordingly. This points to the need to not go overboard with an overly detailed and structured ex-ante design. What is more important is, rather, to* **keep the plan open to new needs and opportunities***'. (STAGES guidelines, 2015)*

Availability of sex-disaggregated data

Sex-disaggregated data and other data relevant to document the status of gender (in-)equality within the organisation are indispensable for designing effective strategies. The availability (i.e. existence and accessibility) of such data is a precondition for the impact of measures and initiatives. Indeed, making proposed measures evidenced-based not only allows for adequately distributing resources and tackling problems, but also for overcoming potential resistances and monitoring achievements. If data are not present, the launch of in-depth auditing processes in the form of surveys, focus groups and pilot interviews, provide necessary grounds for further work.

Competence development

Implementing a GEP, as in any type of organisation, necessitates knowledge and expertise. This is not only to be guaranteed at the time of designing and planning measures, but also for their implementation and monitoring. Competence development, which allows for transferring and enhancing knowledge among a greater number of stakeholders, should therefore be pursued.

Monitoring instruments

Creating implementation follow-up mechanisms is paramount. These can take the form of implementation clusters or networks, regular surveys or data collection, and of indicators that are fully integrated in governance and management monitoring systems. Follow-up indicators increase the validity and sustainability of gender-mainstreaming strategies. For example, in Sweden, quantitative indicators are used to monitor goals on recruitment and upwards mobility, and work environments are monitored by means of a survey. These methods provide key instruments for the overall assessment of the gender equality work. Both qualitative and quantitative indicators have to be SMART: specific, measurable, attainable, realistic and time-related.

Evaluation

Mid- or long-term evaluation of gender-mainstreaming strategies will not be possible when monitoring mechanisms are absent or insufficient. This is detrimental to the effectiveness of future strategies, because evaluations allow users to draw upon lessons learnt from previous initiatives. Evaluations also provide visibility and measurability of actual progress, which cannot always be formally attributed to the implementation of specific measures. This reality undermines the capacity of their promoters to assess their achievements and communicate about them. Evaluations, such as monitoring, are especially key because for changing institutions the prospect of greater equality and the integration of a gender perspective in research content, are two overarching objectives that require time to be achieved.

3.1.3 Common obstacles and how to overcome them

Obstacles to the set-up, roll-out, implementation, management, monitoring and evaluation of a GEP are many and frequent. Some obstacles may be the lack of impact drivers. Other obstacles may be more pervasive forms of resistance or institutional and/or administrative barriers that need to be tackled in a range of ways. It is important to state that work on gender equality is usually not rapid: it may appear slow with concrete results and achievements not fully realised for many years. The following are common obstacles in relation to gender equality work and gender equality

plans identified in universities and research institutions. Suggestions on how to overcome these challenges are also provided.

Resistance

Resistance can be situated at the level of the individual or of the institution, and can take many forms (both explicit and implicit) and manifestations.

Implicit individual resistance can be expressed by an individual's insufficient action or lack of action or disengagement in a process or a GEP.

Explicit individual resistance can be expressed by an individual's overt actions or statements which can target a GEP or actively seek to discredit or dismantle it.

Institutional resistance consists of a systematic, ongoing, sustained pattern of non-engagement with the issue of gender equality and a pronounced lack of support for a GEP. Some forms of actions in such plans, like proposed quotas or changing promotion mechanisms, may be particularly vulnerable to resistance. When a GEP is seen as unachievable or too prescriptive, or if there has not been sufficient information and consultation on the plan, resistance can also emerge.

Overcoming resistance can be challenging. All levels of staff need to be enabled to realise the value of gender equality work, and this may involve training or specific time allocation for work on the GEP. Commitment that is unequivocal and visible from the highest levels of management is required to overcome resistance and to ensure progress in relation to gender equality. Involving stakeholders in identifying and naming problems and resistance points may also be useful. This way, solutions can emerge and ownership of the solutions is not only held by one group or person. Lack of knowledge and understanding may also manifest as resistance. In this case, the suggestions contained in the 'lack of understanding of gender equality and/or a GEP' section may be helpful. It is also important to note that some individuals will not be cooperative and supportive in any circumstances, hence it may be more productive to engage other committed and supportive staff and colleagues rather than to try to change these resistant individuals.

'Promoting equal opportunities is hard work. From a lifetime of working in this field, I am aware it is often greeted with suspicion, defensiveness and overwhelming ennui. It is advisable to "frame" the agenda with one that is more germane to colleagues, relating to their own agendas. In this case, we used two frames. The first was promoting equality in order to promote excellence, by not allowing gender, race, ethnic origin, disability or any other irrelevant variable to intervene in appointment and promotion. The second was to embed it in a policy of "positive work environment", from which everyone could benefit.'

(Teresa Rees, in 'Developing a research strategy at a research intensive university' in the Sage handbook of research management, Dingwall, R. and McDonnell, (eds.), 2015)

Need inspiration or more information?

Consult EIGE's institutional transformation tool, which has a section dedicated to 'dealing with resistance'.

Lombardo E., and Mergaert L., 'Gender mainstreaming and resistance to gender training: a framework for studying implementation', *NORA — Nordic journal of feminist and gender research*, Vol. 21, Issue 4, 2013.

Lack of understanding of gender equality and/or a GEP

There can be a fundamental lack of understanding of the need for and importance of gender equality within some organisations. This can lead to lack of engagement and involvement of key actors, minimising the importance of the work and considering gender equality a 'woman's issue'. To counteract this it is important to clearly reiterate that gender equality is not a minority, marginal issue but it concerns all who work in an organisation. Gender equality may also need to be framed as key to developing a successful, open and forward-thinking research and higher education institution, that respects and enables all who work and study in it. Setting up a GEP which is fully and publicly supported by senior managers and leaders will help in giving visibility to gender equality. Basic (possibly mandatory) training, in person or online, for all staff in an organisation on gender equality may also be required (see examples of awareness-raising and competence-development initiatives in the action toolbox. This is to ensure a collective, shared understanding of the importance of gender equality and related work. Ensuring that time is allocated for this training in staff work schedules gives gender equality prominence within an institution and frames it as an organisational priority. Finally, explaining what a GEP *is* and *is not* may also be required (possibly with relevant examples shared among the staff). This may ensure a common appreciation of the analysis, content, actions and monitoring that make up an effective and comprehensive GEP.

Conviction that commitment to merit and/or excellence negates the need for gender equality work and/or GEPs

Some individuals in organisations may strongly subscribe to the belief that a commitment to academic excellence or promotion on merit alone negates the requirement for a GEP or work on gender equality. This belief appears to have led to an absence of women in many fields and at higher levels of academia or research settings. In fact, a commitment to excellence in research requires a diversity of expertise, experience and staff, as well as an assurance to attract and retain the highest calibre of staff. There are two ways to address the obstacle faced here. First, by providing and promoting unconscious bias training for all staff within an organisation. Second, by referring to international and European research and reports on this topic, which may be useful for convincing colleagues and stakeholders of the importance of gender equality and GEPs. For example, you may refer to:

1. *She figures*, the main source of panEuropean, comparable statistics on the state of gender equality in research and innovation;

2. GenPort, an online portal and repository that provides access to research, policy and practical materials on gender, science, technology and innovation;

3. Gendered innovations, a website that explains practical methods of sex and gender analysis for scientists and engineers, and provides case studies as concrete illustrations of how sex and gender analysis leads to innovation;

4. the online section dedicated to unconscious bias from the Royal Society (UK and the Commonwealth), where you can find a briefing, some further reading, as well as an animation.

Perception that gender equality work is not required, or denial

In some settings, countries or academic disciplines there may be a perception that there is no need for gender equality measures or GEPs. You may also find a 'job done' attitude. This may be attributed to women being well represented in certain disciplines, fields, faculties or sectors or a historical legacy of gender equality work in an organisation. However, in this case, it is important to clarify that developing a GEP and work on gender equality needs to be continued and maintained and is not a 'one-off' activity. This is in order that prior gains achieved are sustainable and are flexible enough to adapt to changes in an organisation that both originate internally and externally. It is also important to emphasise that ongoing work on gender equality benefits all staff, not only women. Denial may also be related to resistance.

Lack of autonomy of research organisations and higher education

In some countries or regions, there may be limited autonomy given to organisations to enable changes related to gender equality to be made. This lack of autonomy may be particularly pronounced in relation to hiring, recruitment and promotion procedures and regulations. Higher education and/or research institutions need to respect the provisions of the law, but if there is an internal drive and catalyst for change, more can be achieved. Bottom-up approaches can push for change. Identify activists in the organisation to help thinking of creative solutions that comply with the law and, at the same time, promote fairer recruitment and career progression practices. They will also help in putting actions in motion and convincing senior management and leadership. Alliances need to be sought and built in order to contribute to a better working environment for both women and men.

Lack of sufficient, regularly available resources: human and financial

An absence of dedicated, adequate and sustained resources, both human and financial, for gender equality work and for developing, implementing and monitoring GEPs is a common obstacle. An absence of funding can lead to chronic under-resourcing of the work, which may lead to only 'cost-neutral' actions and policies being resorted to. This is despite, in most cases, investment and committed finances being required to accelerate change, support initiatives and actions of the GEP. The staff time required to develop and implement a GEP and the initial analysis, assessment and drafting of a plan needs to be acknowledged and resourced. Adding to the workload of already overburdened staff, offloading this task to inexperienced or junior staff and not financially supporting the actions of the plan give a strong impression that gender equality is not valued at an institutional level. Not funding training on gender and allowing for time in staff schedules to attend such training also is a form of not resourcing gender equality work. To overcome this obstacle, the value of gender equality work should be clearly outlined, such as increased staff retention, more robust research, more diversity in staff make-up and evident senior-level commitment sought (see also 'Advocacy: rationale for gender equality change in higher education and research institutions'). The resources needed, both human and financial, to develop and maintain a GEP must be clearly defined, agreed and documented in the early stages of plan development. This is to fully and accurately 'cost' the work involved and to avoid staff burn-out, key actor disengagement due to a lack of results, a lack of progress (both short and long term) and limited goal achievement. It also demonstrates the commitment and support an organisation has for the GEP and the importance it places on gender equality. A persistent and chronic lack of resources for this work and a GEP may indicate institutional resistance to the issue.

Lack of institutional or organisational authority

The staff involved in the development and roll-out of a GEP may not hold the authority or decision-making powers to promote and drive change in an organisation. This can lead to frustration, limited progress and blockages in terms of goal or output achievement of the plan. This obstacle can generally only be resolved by early involvement, commitment and ongoing support from top management in an organisation. This support needs to be visible, perceptible and genuine to all those within an organisation and to those who fund the work of the organisation in order to develop a reputation for deeming gender equality work important. In addition, identifying in the development phase of the GEP who is needed to grant authority, progress and authorise decisions and liaising with them early on in the process is also crucial (see also 'Not engaging key allies early in the process').

Lack of relevant data and statistics

A lack of availability, or access to, sex-disaggregated human resources data is a challenge, as these figures are required to develop a baseline or initial assessment of where gender equality work and actions need to be targeted in an organisation. Having the data and statistics collated and prepared is also needed to counter resistance with actual up-to-date facts and figures. Data-protection policies and legislation may in some cases (in particular in organisations, faculties or departments with low staff numbers) limit the availability of sex-disaggregated personnel data. Updated human resources data collation and management systems may need to be utilised to enable statistics broken down by sex to be generated from existing staff records. The time and costs for collecting and analysing data may need to be factored into the GEP. Storing any resultant data in a way that complies with European and national data-protection requirements is also critical.

Not engaging potential key allies and/or actors early in the GEP process

Identifying who needs to be communicated with and engaged in the development and roll-out stages of a GEP is crucial. It will ensure ongoing and future support for gender equality work within an organisation. In many organisations this will imply that constructively involving middle management is vital to reducing potential future obstacles that may hinder progress and full implementation of the plan. Middle management may also be key sources of the data, statistics and sex-disaggregated information required to establish baseline figures and monitor trends and progress in relation to gender equality. Therefore, it is important for these actors to be recruited as important allies and enablers of gender equality work early in the process. This may require scheduling and delivering training, workshops, seminars and meetings etc. with staff not directly involved in drafting or roll-out of the GEP, but whose support is required for progress

to be achieved. See examples of awareness-raising and competence development initiatives in the action toolbox. Factoring in this time and ally-building work is important for avoiding obstacles at a later stage of implementation of the plan. In addition, embedding the GEP as an institutional or whole-of-organisation plan can lead to greater cross-departmental and faculty support, which will increase the sustainability of gender equality work.

Absence of a historical background in gender studies within an organisation

Some universities and research institutions may not have had a previous history or tradition of teaching or engaging with gender studies. This can mean that it is more challenging to convince staff and actors of the importance and benefits of gender equality work and gender equality plans. This obstacle may require support from and utilisation of gender equality networks (at a national, regional or international level) and the buying-in of gender expertise to enhance institutional competence and knowledge. Check Eurogender's Stakeholders Directory to find gender experts and trainers in your country or GenPort's People directory where you can filter the type of stakeholder group you are looking for (e.g. gender networks, or gender equality practitioners and advisers).

Ensuring the sustainability and resilience of gains related to gender equality

Progress and success in relation to gender equality and implementation of a GEP can be vulnerable to changes, where decisions or progress may be reversed or halted.

This can be particularly pronounced when key supporters or drivers at senior management level change functions/roles or leave. Budget changes, cutbacks, restructuring and apathy can also lead to reduced or limited sustainability of a GEP. To overcome this obstacle, embedding a commitment to both gender equality and the work related to the plan into multiple organisational structures is key. This means that support, buy-in and commitment for the plan will need to be sought from multiple stakeholders and not only allocated to a specific school or department. Allocating gender-equality-related work a specific multi-annual budget that doesn't just originate from one school or department alone also seems to contribute to sustainability. Building in regular accountability and monitoring and evaluation structures and/or tools into a GEP may help to flag when sustainability begins to lag and indicate actions needed prior to crisis points being reached. The sustainably and resilience of any plan may need to go through SWOT analysis (strengths-weaknesses-opportunities-threats) and stress-testing prior to sign-off and launch, this is to ensure that it is suitably flexible to overcome challenges in the future.

3.2 Action toolbox for institutional change in academia and research organisations

In working towards institutional change in research organisations and higher education institutions, different areas and themes can be addressed in the GEP through specific initiatives. Depending on the needs of the organisation, it makes sense to focus on **a combination of areas**. For each thematic area, a range of activities and instruments can be mobilised. Reference is made to existing examples and resources whenever possible for each thematic area. In choosing certain approaches, it is important to take into account the specific organisational context and features. What works well in one organisation, might not be the best choice in another organisation.

The thematic areas that are addressed in this section are not mutually exclusive. Rather, they overlap. For example, competence development efforts can focus on how the gender dimension can be addressed in scientific research or in teaching.

For definitions of specific methods and tools, have a look in EIGE's glossary.

3.2.1 Structures to support gender equality work

Structures to support gender equality work are dedicated organisational arrangements (unit, office, network, service, etc.) which are mandated to support structural change towards gender equality through their work.

Such structures can take a variety of forms: from gender equality offices to ombud services, to networks of gender equality 'antennas' in different organisational departments, and others. The examples provided below reflect the different forms and roles that support structures can take.

Useful to know:

1. whatever structure is established, it is important that its mandate is endorsed by the top of the organisation;

2. the closer that structures are situated to the top of the organisation (e.g. reporting directly to the dean or rector), the more authority the structure can have and the more effectively it can work;

3. structures need adequate resources (human and financial) to work effectively.

Existing tools and resources:

The guidelines produced within the framework of the EU-funded structural-change STAGES project provide practical insights on establishing and supporting networks for gender equality in universities and research organisations. For example, it is recommended to bridge top-down and bottom-up approaches by creating spaces for dialogue and negotiation within networks that can span the institution. Moreover, networks can be involved in planning, empowerment and negotiation activities. They can support, connect and empower internal actors. See pages 46-48. http://www.projectstages.it/index.php/it/archivio-speed-it/item/284-the-stages-guidelines-available-online

Examples:

> ## Boosting cooperation for advanced gender research
>
> **GenderNet Freie Universität Berlin (Germany)**
>
> GenderNet Freie Universität Berlin (Germany) is a network structure aimed at facilitating and boosting communication and cooperation between actors in the areas of gender research and gender equality practice at different levels. This innovative, flexible structure brings together researchers, gender equality officers, actors in management and administration and members of committees and other relevant bodies. They jointly address current challenges and drive forward excellent gender research, including gender equality practice, international dialogue and transnational cooperation.
>
> The work within *GenderNet Freie Universität Berlin* is coordinated by a steering team (*Leitungsteam*) consisting of key actors in university management, gender equality work and gender research of Freie Universität Berlin. Five project teams have been set up to each address one of the following current challenges through joint efforts: the gender dimension in research content; internationalisation; gender in MINT subjects (mathematics, information sciences, natural sciences and technology); diversity; and the institutional strategy.

Eliminating gender bias from recruitment

The Gender Balance Committee of the Genomic Regulation Centre (CRG)

The Gender Balance Committee of the Genomic Regulation Centre (CRG), a Spanish biomedical research institute of excellence, was established in 2013. Its mission is to promote equal opportunities for men and women at the CRG, alongside women's advancement in academia. The committee aims to eliminate gender bias from the CRG recruitment process, attracting female scientists, and improving the work-family life balance for its employees. It is composed of members representing all areas of the institute and has regular meetings every two months. The practice is included in the previous CRG policy regarding gender equality and HR management excellence. The centre, for instance, received the HR Excellence in Research honour from the European Commission in 2013 — a recognition which entails the development of a GEP. Among other activities, in 2014, the committee launched a mentoring programme geared towards young post-doctoral researchers, and, in 2015, a support grant providing extra financial support to CRG women scientists with family responsibilities. Altogether, the Gender Balance Committee contributes to strengthening gender institutional change at a leading research performing organisation.

Gender and diversity controlling

Goethe University, Frankfurt (Germany)

The approach to 'gender and diversity controlling' that has been implemented at Goethe University, Frankfurt (Germany) since 2010 features a standardised procedure steered at central level that grants the rather autonomous, diverse faculties (*Fachbereiche*) freedom to design tailor-made initiatives. Its introduction traces back to the university's gender action plan (Frauenförderplan 2009-2013).

The gender and diversity controlling coordinator is in charge of steering the controlling procedures and of managing the compilation of gender and diversity statistics within the university.

Every two years, the faculties are obliged to report on the status quo related to gender (in)equalities and on their Gender and diversity action plan (GEDAP). The process is steered by the gender and diversity controlling coordinator who provides the faculties with data, tools and advice. Based on their own assessment and on the advice received from the coordinator, the faculties then set up the action plan for the next two years. The gender and diversity controlling coordinator and, subsequently, the university senate's commission on gender equality and diversity assess the new action plan. Subsequently, the faculties are supposed to adjust the plan based on this feedback.

Gender and diversity controlling has become well-established and widely accepted across the university. Notably, the scope and quality of the GEDAPs at faculty level have been enhanced since gender and diversity controlling was first initiated.

Driving forward gender equality within the research processes

University College Dublin (UCD) (Ireland)

The position, gender project manager, is situated in the University College Dublin (UCD) (Ireland) within the Research and Innovation department. It is sponsored by the Vice President for Research, Innovation and Impact within the university. The purpose of this position is to drive forward gender equality within the research processes, activities and outputs. The role of this person is to engage the research community at all levels in UCD on gender equality and to support the integration of a gender dimension in the content of research projects and funding applications. The position was created in the light of Horizon 2020 research funding requiring an emphasis on the gender dimension in research content, as well as the Irish Research Council specifying that all research applications must consider the sex/gender dimension in the research content of the project proposed. The role complements the diversity and equality objectives of the university as outlined in the UCD Strategy 2015-2020. This practice has a high replicability possibility for other universities and research institutions and appears to be unique in Ireland. This role is part-time at three days per week which began in June 2014 and will run for a minimum of three years.

Recruiting more women and girls into science, technology, engineering and mathematics

The Centre for Women in Science and Engineering Research (WiSER) at Trinity College Dublin (TCD) (Ireland)

The Centre for Women in Science and Engineering Research (WiSER) at Trinity College Dublin (TCD) (Ireland) was established following a funding call from Science Foundation Ireland in 2005 aimed at addressing the under-representation of women in science, engineering and technology. WiSER aims to recruit more women and girls into STEM (science, technology, engineering and mathematics) careers and education; to enable highly skilled women researchers to remain in STEM careers; and to encourage and assist top-level researchers to return to work following a career break. WiSER's activities and practices are underpinned by the core value that scientific excellence is only achievable in an environment that supports, enables and sustains all outstanding researchers, regardless of gender. WiSER collects gender-disaggregated statistics in TCD and reports on them annually to highlight gender gaps and to monitor progress. WiSER offers a range of practical professional development training to women academics and researchers working in STEM in TCD, such as a mentoring programme, seminars which provide networking opportunities for women, WiSER academic writing group seminars, and tips and information on how women can build their academic research profile via online tools and checklists and other supports. There is also information on work-life balance and TCD policies and support for career breaks and flexible working. Funding for the WiSER comes from the university (TCD). However, many of the WiSER activities have been funded through EU projects such as INTEGER.

3.2.2 Awareness-raising and competence development

Awareness-raising efforts aim at generating and stimulating sensitivity to issues related to gender (in-)equality, while (gender) competence development aims at strengthening people's knowledge and skills to engage with gender equality issues. In practice, the two types of efforts often overlap, as learning starts with awareness, but is a continuous process.

Awareness-raising and competence development can take many forms: from campaigns, to short introductory sessions for specific target groups, seminars, training, to lectures and dedicated courses or summer schools.

Useful to know:

1. Make sure that you choose the most effective form of awareness-raising or competence-development initiative, taking into account the needs of the target audience(s). For example, while a 3.5-hour introductory lecture for undergraduate students might be an adequate choice, people in leadership positions are likely to benefit more from participatory and interactive workshops in smaller groups.

2. Carefully consider who the target audience is and whether the focus of your effort is to be on awareness-raising or on competence development. Tailor your approach accordingly.

3. Think about the effects that you want to trigger through these awareness-raising and competence development efforts. How can these effects be monitored? Try to find indicators and ways to track the impacts of the efforts. Evidence of impact will provide you with strong advocacy arguments.

Existing tools and resources:

1. Do you need to find a gender trainer to organise a training at your organisation? Search on Eurogender's Gender Trainer Directory. [http://eurogender.eige.europa.eu/gender-trainers]

2. Do you need to find experts from a specific scientific field in a particular country? Search GenPort's people database. [http://www.genderportal.eu/people]

3. EIGE's online tool on gender training [link to EIGE's online tool]

4. Toolkit — Gender in EU-funded research. This toolkit clearly explains and provides guidance on how to integrate gender in research. It addresses both the gender dimension in research content (with case examples from nine different scientific fields) and women's participation in research activities. One-day training sessions, based on the toolkit, can be organised. http://www.yellowwindow.com/genderinresearch/index_downloads.html

5. Leaflet from the EGERA project: a concise presentation of this EU structural-change project, aimed at raising awareness for the project and its goals with a broad public. It includes an overview of the main thematic areas to be addressed (work packages) and events. http://www.egera.eu/fileadmin/user_upload/EGERA-Flyer.pdf

6. 'Are women a problem, do women have a problem or do women point out a problem?' This presentation was prepared by the coordinator of the EU-funded structural-change project FESTA. It aims at raising awareness about the role of women in science. http://www.festa-europa.eu/sites/festa-europa.eu/files/public_docs/

Presentation_MSalminenKarlsson_Are%20women%20a%20problem_Oct2012.pdf

7. Training materials on improving meeting cultures can be consulted in a report published by the FESTA consortium. The aim is to facilitate open and constructive communication, and to raise awareness of the subtle ways of giving and taking away voice, power and visibility. http://www.festa-europa.eu/sites/festa-europa.eu/files/6.1.1.%20Report%20Meeting%20Structures.pdf

8. 'Gendered innovations: harnessing the creative power of gender analysis for discovery and design': a short video course (4'19") given by Londa Schiebinger from Stanford University about the potential of sex and gender analysis for bringing forward innovations. https://www.youtube.com/watch?v=aoGqpvO27QQ

9. Short video case studies about gendered innovations in particular fields of research, along with other instructional and informative videos, can be found at the Gendered Innovations website: http://genderedinnovations.stanford.edu/video_landing.html

10. The intervention initiative toolkit (2015), developed by UWE (University of the West of England) for the prevention of sexual coercion and domestic abuse in university settings. http://www1.uwe.ac.uk/bl/research/interventioninitiative/thetoolkit.aspx

11. E-learning package on Gender competent leadership in academia developed by the EU-funded structural-change project GENOVATE. This tool, which contains four sections, encourages (prospective) leaders to reflect on possible solutions according to their institutional needs. http://www.genovate.eu/modules/gender-competent-leadership/genovate.html#headingtaglink_1

12. 'Women and technologies' towards EXPO 2015. Women and Technologies: a winning pair? Gianna Martinengo (from the association Women and Technology, Milan, Italy) presented these slides at a public event organised by a partner organisation of the EU-funded structural-change project FESTA in October 2012. The presentation was intended to give visibility and raise awareness of the great potential, creativity and participation of women in the world of technology. http://www.festa-europa.eu/sites/festa-europa.eu/files/public_docs/Presentation_GMartinengo_Women%20and%20Technologies_a%20winning%20pair_Oct2012.pdf

13. Toolkit for integrating a gender-sensitive approach into research and teaching, prepared within the EU-funded structural-change GARCIA project. http://garciaproject.eu/wp-content/uploads/2015/12/GARCIA_working_paper_6.pdf

Examples of measures:

Compulsory awareness-raising session for BA students

University Paris 7 Diderot (France)

The University Paris 7 Diderot (France) delivers a 3.5-hour compulsory awareness-raising session on gender equality for first grade students as they enter the university (2 700 students/year). It applies to all components and faculties but medicine (law, economics and management, social sciences and humanities, literature and arts, sciences, technology, mathematics). The session is an integral part of the welcome programme of the university, which takes place in September and includes other events such as a forum of associations and a speech from the dean. The session on gender equality is the only event having academic content for which attendance is compulsory. Between 70 % and 80 % of registered students have attended this session since it was put in place (approximately 2 000 students). The session is divided into three parts: 1) distribution of a questionnaire on gender inequalities; 2) a general introduction to gender and sexual identities; 3) broadcast of a conference by neurologist Catherine Vidal: 'Does our brain have a sex?'. It is organised by the Gender Equality Service, established in 2010 as a central service of the university. While it does not primarily address gender in research and does not target researchers, this practice largely contributes to making gender equality culture an integral part of the institution's identity, bringing insights from research on gender and initiating the fight against gender bias and stereotypes at an early stage of the curricula of future researchers.

A practice to award and ensure greater visibility for women researchers

Women Researchers Day at the Alexandru Ioan Cuza University of Iasi (Romania)

The Women Researchers Day at the Alexandru Ioan Cuza University of Iasi (Romania) was created in 2013 as an initiative within the EU-funded STAGES project, led by the Centre for Social Management and Community Development and the UAIC Network of Women Academia and Research. It is an annual initiative aimed at increasing women's visibility, voice and recognition by presenting their professional profiles and awarding their most relevant results in science. It is a complex public event consisting of several categories of actions like producing and presenting dedicated films under the title 'UAIC profiles of women in science', giving awards to distinguished senior researchers and promising young researchers as well as giving lectureships/conferences on gender in science and trainings for targeted groups (managers, staff and young researchers) with the contribution of prestigious invited gender experts. The main objectives are to provide female research with role models, to create an international reach for the exchange of good practices, and to contribute to the professional development of women researchers. The event takes place on the same day as the European Women Researchers Day as a form of enacting transnational and inter-institutional cooperation for promoting shared objectives of gender equality in science through the organisation of mutually beneficial common actions and through its dissemination at international level by networking channels (such as EPWS, GenPort, CNRS, STAGES, UAIC).

School of project drafting and management for European projects for post-doctoral and early career researchers

University of Milan (UMIL) (Italy)

The School of project drafting and management for European projects for post-doctoral and early career researchers was one of the actions within the EU-funded STAGES project at the University of Milan (UMIL) (Italy). The action was designed in order to enhance women's participation in research and project funds. Indeed, at UMIL women had the same chance as men to obtain European funds but they tended to apply less than their male colleagues. These findings matched those highlighted in the *She figures* report (2012), especially with regard to the specific field of agricultural sciences (*She figures*, 2012, pp. 126-129). The School of drafting aimed at fostering their participations in calls. It started in September 2013 and ended in June 2014. Its programme was planned in cooperation with the grant office at the UMIL and it was divided into two parts. The first part, which started in October 2013 and ended in January 2014, aimed at providing participants with an overview of the aims and structure of Horizon 2020 and other European funding schemes (European Research Council, Marie Skłodowska-Curie actions, etc.). This first part also provided information on the budgeting, management and financial reporting of European projects and grants, on the valorisation of the scientific results (evaluation and management of scientific outcomes, patents etc.) and on the gender perspective within European funding schemes. The second part of the programme aimed at supporting the participants in drafting projects. At this stage, participants had to gather information about European calls and to possibly choose calls that they can/would like to apply for in order to receive a more targeted support.

Gender-sensitive PhD supervision tool

Uppsala University (Sweden)

As part of the activities organised within the EU-funded structural-change project FESTA at Uppsala University (Sweden), a gender sensitive PhD supervision tool has been developed by six institutions: Uppsala University in Sweden, University in Southern Denmark, Fondazione Bruno Kessler in Italy, Ireland, RWTH-Aachen University in Germany and South West University in Bulgaria. The tool is based on a documentary review as well as empirical data which emerged in study circles, focus groups, interviews and workshops with 63 PhD supervisors (29 males, 34 females) and 54 PhD students (18 male, 36 female) in the six participating institutions. This tool is a source of information about what is important in terms of gender and diversity issues to PhD supervisors and PhD students at various stages of a PhD project. In addition to dealing with PhD supervision, it also provides examples and recommendations of many administrative aspects, which may have far-reaching implications for gender equality such as how to help in changing supervisors, how to manage career interruptions, or how to support a good start. The objective is to minimise the negative effect of gendered inter-actional patterns in academic environments on the career opportunities for women researchers. More specifically, the activities target the supervisory relationships by addressing the socialisation of PhD students and by improving super-visory practices. This can be the case in male-dominated research environments, in which it may be relevant to help women at the beginning of their careers to find ways of surviving and competing. This will advance women's academic careers in two ways: 1) they will become more fully integrated in the community and therefore more motivated for an academic career and 2) the visibility of their specific value to the research community will be improved.

Gender equality workshop to fight discrimination biases

University of Graz, Austria

As part of the internal leadership training programme of the University of Graz, the gender equality office organises a bias-sensitising workshop. This workshop aims at creating reflexivity about gender and other discrimination-related biases in personnel selection procedures, and at creating a general understanding that equality and quality are mutu-ally reinforcing goals. The training takes place over two half-day sessions of five hours each, and is facilitated by external experts as well as gender equality experts from the university. In this workshop, participants gain knowledge about diversity issues, societal inequalities and academic evaluation procedures. They also participate in a mock personnel selection procedure, as well as discussions on academic CVs, to initiate reflection about their own selection criteria, prejudice and biases.

3.2.3 Engaging stakeholders

To structurally embed gender equality within the organ-isation, it is necessary that the widest possible circle of stakeholders is receptive to this change. In order to make gender equality work effective, it is therefore paramount to engage with these stakeholders, vertically as well as hori-zontally. Outreach work goes from the top to the bottom of the organisation, and across departments, schools and disciplines. Even alliances and outreach beyond the institu-tion can help to strengthen and legitimate internal change.

> *'Everything can be successful or not, in one or any setting, depending on the negotiation process with the concerned stakeholders.'*
>
> *(Marina Cacace, L'Assemblea delle Donne per lo Sviluppo e la Lotta all'Esclusione Sociale (ASDO), evaluator of the EU-funded STAGES project)*

Useful to know:

1. It is important to have the support and explicit back-ing from the top level of the organisation from the start. Such support increases the perceived legitimacy of the actions.

2. While work towards gender equality can start with a small group of motivated people, it is important to gradually and continuously reach out and widen the group of involved actors.

3. Know your institution, talk with people, understand what existing structures do and can do, identify where potential allies are and where resistance can be encoun-tered. Start by building strategic alliances and seek win-win situations.

4. Creating a feeling of ownership is key to engaging stakeholders in the work towards structural change for gender equality.

5. For engaging stakeholders, it is paramount that they know the gender equality objectives and the initiatives being taken. Therefore, internal communication and visibility are crucial.

6. Internal legitimacy can be acquired by gaining external support through alliances with stakeholders outside the organisation. Think for example about research organisations with an outstanding reputation for gender equality, internationally recognised gender equality experts, or participation in an EU-funded structural-change project.

Existing tools and resources:

1. The EU-funded structural-change project INTEGER project developed a checklist with suggestions for engaging with key stakeholders. http://www.integer-tools-for-action.eu/sites/www.integer-tools-for-action.eu/files/file_fields/2015/06/25/howtoengagestakeholdersandovercomeobstacles.pdf

2. The EU-funded structural-change project GENOVATE's gender and diversity toolkit presents and explains a set of interesting approaches and participatory techniques to engage stakeholders. https://issuu.com/asawikbergnilsson/docs/genovate_toolkit

3. A presentation by Evanthia K. Schmidt, Aarhus University (Denmark), about engaging leadership in gender equality initiatives (presented at the EU-funded structural-change project STAGES final conference on 3 December 2015). This presentation contains concrete suggestions learnt from the experience of STAGES on how to better involve leadership in gender equality.

4. A short video (5':13") from the StratEGIC toolkit http://www.colorado.edu/eer/research/strategic.html with testimonials about working for change at multiple institutional levels. https://www.youtube.com/watch?v=ROWIKmZBhqU&feature=youtu.be

Examples:

National connections at Fraunhofer Gesellschaft: the National Committee, Germany

The National Committee of Fraunhofer Gesellschaft (Germany) included a set of qualified experts from the most important research institutions in Germany (sharing similar features and concerns), plus federal government institutions and the media. The team responsible for implementing the EU-funded structural-change project STAGES actively involved committee members, with varied tasks, in the implementation of selected actions, well beyond the original function of the committee in the dissemination and communication of the action plan. Partnerships emerged among different institutions, which is an important follow-up of the action plan, increasing the chances for sustainability of parts of it. The active involvement of the committee also had a positive impact within Fraunhofer, facilitating the mobilisation and involvement of interested internal stakeholders. (source: STAGES guidelines, 2015)

3.2.4 Organisational culture and work-life balance

The organisational culture and work-life balance are key factors that contribute to creating an enabling environment for both women and men to have fulfilling careers in the research sector. This area covers all aspects that promote an enabling working environment in which both women and men can thrive, feel good in their jobs, enjoy equal opportunities to develop their careers and have fulfilling lives. This is a broad thematic area that covers issues such as:

1. gender-sensitive communication;

2. childcare provisions;

3. maternity/paternity/parental leave provisions.

Useful to know:

1. Some mistakenly understand gender equality as a women's issue only. It is important to highlight that the whole institution benefits from a more open and respectful organisational culture. The well-being of all improves when there is a better balance between work, family and private life.

2. Better organisational cultures help to attract and to retain the best talents.

3. Changing the organisational culture does not happen through single interventions. Systematic efforts will be required until the desired change in values has been internalised by all involved in the organisation.

4. The pursuit of an academic career is still often associated with full dedication to science and a culture of 'long hours'. As long as women continue to carry the bulk of

caring responsibilities, the double workload for women renders it difficult to balance their professional and private lives.

5. A respectful, open and welcoming organisational culture is sensitive to a variety of gender identities and does not consider 'women' and 'men' as homogeneous groups.

Existing tools and resources:

1. *Supporting reconciliation of work, family and private life — good practices* (2015). This EIGE publication presents good practices, gaps and challenges in the work towards supporting the reconciliation of work, family and private life. http://eige.europa.eu/sites/default/files/documents/mh0214941enc_web.pdf

2. **Gender-sensitive communication:**

   (a) *Guidelines for using gender-sensitive language in communication, research and administration*. This concise document provides practical suggestions to ensure that language and wording are not gender discriminatory. https://www.reutlingen-university.de/uploads/media/Guidelines_for_using_gender-sensitive_language.pdf

   (b) Antwerp charter on gender-sensitive communication in and by academic institutions. The organisations signing the charter undertake to promote respect for human dignity and social responsibility, eliminate all forms of discrimination and use gender-sensitive language at all times when communicating. The charter is one of the key outcomes of the EU-funded structural-change EGERA project. http://www.czech-globe.cz/media/filer_public/df/e6/dfe6eec6-8abb-4884-b8e7-9f8c5a3d019f/antwerp_charter_on_gender-sensitive_communication_5.pdf

   (c) *Guidelines on gender-neutral language* (1999), published by Unesco (in English and French), explains how language can be exclusive and stereotyping. It contains a list of non-neutral phrases and words as well as possible alternatives to these. http://unesdoc.unesco.org/images/0011/001149/114950mo.pdf

3. **Other:**

   (a) Training materials on improving meeting cultures can be consulted in a report published by the EU-funded structural-change FESTA project. The aim is to facilitate open and constructive communication, and to raise awareness of the subtle ways of giving and taking away voice, power and visibility. http://www.festa-europa.eu/sites/festa-europa.eu/files/6.1.1.%20Report%20Meeting%20Structures.pdf

(b) *Mapping organisational work-life policies and practices* (2015), Sanja Cukut Krilić and Elisa Rapetti (eds.). This is a working paper (n. 4) developed in the context of the EU-funded structural-change GARCIA project. http://garciaproject.eu/wp-content/uploads/2015/10/GARCIA_report_wp4.pdf

(c) *Athena SWAN factsheet on organisational culture*, with 'quick win' suggestions that have been implemented by Athena SWAN award winners. http://www.ucl.ac.uk/hr/equalities/gender/External%20things/Factsheet%20-%20Culture.pdf

(d) Imperial College London commissioned independent research to examine issues of gender equality and institutional culture, with a view to formulating advice on how to address sexism http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_15-10-2015-16-20-33. In the context of this research, staff and students are encouraged to contribute to the project by filling in a short survey. Here is the template with the questions. [link to pdf — downloaded on the server]

(e) At the University of Oxford, 39 female scientists were video interviewed about their experiences as a female academic. Have a look at the testimonies about work-life balance http://www.womeninscience.ox.ac.uk/topics/balance/work-life and about part-time and flexible working http://www.womeninscience.ox.ac.uk/topics/balance/part-time

Examples:

Teaching-free period when returning from parental leave

University of Southern Denmark (Denmark)

Since 2012, one of the ways in which the University of Southern Denmark (SDU) has implemented measures addressing gender equality is by supporting work-life balance. With the implementation of internal guidelines regarding parental leave, SDU initiated two specific measurers: 1) while away on parental leave, the researchers are offered continuously academic updates and 2) when returning from parental leave, the researchers are offered to get a teaching-free period (if they were on leave for six months or more). The internal guidelines have helped establishing a supportive work-family culture within the organisation and providing more flexible career trajectories for young female researchers in particular.

Family-leave without consequences for the academic career

Hanken School of Economics (Finland)

Hanken School of Economics (Finland) automatically extends the temporary contracts of teaching and research personnel if they have been absent due to maternity, paternity and parental leave. The policy was included in the Human Resources instructions of the School in 2010, and it is also inscribed in its gender equality and non-discrimination plan. The policy was adopted in order to support long-span research work and ensure that research projects will be finalised, as well as to promote career advancement for women researchers. The practice also improves the reconciliation of work and family life for all workers on temporary contracts, but in particular for women, as women in Finland take statutory leave most often. A recent survey by the Finnish Union of University Researchers and Teachers (2013) revealed that one quarter of university workers had not received a contract extension due to family leave. The present policy ensures that staff members are treated equally in this matter. It has improved the career prospects of young women researchers at Hanken and their possibilities of combining a research career with family. Researchers on temporary contracts are able to finalise their projects after returning to work after parental leave, even if the projects had officially ended during their absence. Not losing research time and being able to return to a position after parental leave is crucial for career advancement in the highly competitive academic job market. From the perspective of reconciliation of work and family life, the policy makes taking parental leave more attractive to researchers — also for men. Hanken's policy offers a contract extension for the length of the statutory leave (maternity leave: three months, paternity leave: two weeks and parental leave: six months).

Maternity cover fund and return-to-work policy

Queens University Belfast (QUB) (United Kingdom)

In Queens University Belfast (QUB) (UK), all schools have *return to work policies*, which are funded by the schools and, where feasible, allow for either a six-month teaching-free period on return from maternity leave, or a greatly reduced teaching load. This policy began in science, engineering and technology schools in QUB and has since expanded. It began following on from a recommendation in the *Women's forum report on gender imbalance at Queens* (May 2000) and was implemented shortly thereafter. This policy aims to ensure that mothers-to-be can take their maternity leave without worrying about how their leave impacts on others, and that they have time to readjust to work on their return and focus on research activities without teaching pressures. This policy also extends to female and male staff taking adoption leave. These policies have received strong praise and positive feedback from academic staff within SET Schools in QUB.

A Maternity Cover Fund (MCF) is also in place across the university and is comprised of money reclaimed through statutory pay credits and a contribution from university funds. The fund provides assistance to schools and directorates to ensure that the essential work of all members of staff who take maternity leave is covered so that they can enjoy anxiety-free maternity leave. The MCFs are administered and managed centrally by the personnel office and claims can be made through an online application which is then reviewed by a maternity cover fund group. Replacement teaching costs are estimated at a faculty level and come out of school budgets. The fund enables women across the university, not only academics, to take maternity leave without worry about work, and enables the manager/department head to apply for funds to employ substitutes to carry out the mother's work while she is on leave. The outcome of this fund and policy is a 100 % maternity leave return rate for QUB since 2011.

3.2.5 Recruitment, selection and career progression support

Women and men shall get equal chances to develop and advance their scientific careers. Recruitment, selection and career progression are crucial steps in this endeavour. It is thus important to critically review the existing recruitment and selection processes and procedures at all stages, to address existing biases that act as structural discrimination against women along their career path.

Useful to know:

1. The Council conclusions on advancing gender equality in the European research area (adopted in December 2015) http://data.consilium.europa.eu/doc/document/ST-14846-2015-INIT/en/pdf point out that still only 20 % of full professors in Europe are women and it therefore invites institutions to strive for guiding targets for a more even gender balance for professors.

2. In a number of countries, the so-called 'cascade model' is being introduced, following the German example. In this model, the institutions set targets for the proportion of women at each qualification level on the basis of the proportion of women at the level immediately below.

3. While it is generally accepted that 'merit' and 'excellence' are key criteria for the assessment of candidates for academic positions, these concepts are not gender-neutral. Further reading on this issue is provided under the list of resources below.

4. 'Unconscious' or 'implicit' bias [link to section on unconscious bias in 'why change must be structural'] unintentionally influences judgements and opinions about others and can result in discrimination. It is very important to be aware of your own biases. Likewise, it is highly relevant to organise training for those involved in selection processes to avoid unconscious or implicit gender bias to interfere in the decision-making.

5. Organising blind assessments of candidates' CVs (i.e. omitting the name of the candidate) can contribute to avoiding unconscious gender bias in candidate selection.

6. Where existing processes fall short of satisfactorily remediating inequalities, positive action measures can be mobilised temporarily. It is however commendable to carefully check the legislative framework before such measures are introduced.

7. While quotas are generally seen as effective in bringing forward an improved gender balance, quotas tend to evoke significant resistance. Carefully consider the pros and cons of introducing quotas, taking into account cultural specificities. Take a look at how quotas were introduced at the University of Ghent in Belgium. [link to the Good Practice case description]

8. A gender pay gap http://ec.europa.eu/justice/gender-equality/gender-pay-gap/index_en.htm results from variances in contractual conditions and terms of employment, of which the effects are cumulative over time and most often disadvantageous to women.

> *'To generate excellent research requires excellent researchers. This implies both attracting them, and recognising, fostering and promoting them. But throughout the EU, gender still plays an inappropriate role in selection. The more transparent the procedure, based on explicit criteria, the more successful women are likely to be. Excellent male candidates have nothing to fear from transparency!'*
>
> (Teresa Rees, in 'Developing a research strategy at a research-intensive university' in the Sage handbook of research management, R. Dingwall and M. B. McDonnell (eds.), 2015)

Existing tools and resources:

1. A *Handbook on gender issues in recruitment, appointment and promotion processes* has been developed within the framework of the EU-funded structural-change FESTA project. This handbook is intended to support practitioners who are involved in hiring processes and stakeholders who can influence regulations. It helps to create awareness of the biases that can influence appointment processes and criteria. http://www.festa-europa.eu/sites/festa-europa.eu/files/5.1.2.%20Gender%20Issues%20in%20Recruitment,%20Appointment%20and.pdf

2. E-learning package on Gender competent leadership in academia developed by the EU-funded project GENOVATE. Section 3 of this tool deals specifically with unconscious bias. It explains the mechanism at work, and presents case studies, tests, video statements, a glossary of relevant terms and a list with further reading suggestions. http://www.genovate.eu/modules/gender-competent-leadership/genovate4.html

3. *Academic careers and gender inequality: leaky pipeline and interrelated phenomena in seven European countries* (2015) is a working paper (No. 5) developed within the framework of the EU-funded structural-change GARCIA project. It demonstrates how women´s career progress 'evaporates' as they advance in their career (the so called 'leaky pipeline' phenomenon). The report also provides some recommendations based on the national cases studies. http://garciaproject.eu/wp-content/uploads/2015/12/GARCIA_working_paper_5.pdf

4. Assessing excellence (2014). This paper, drafted by Flavia Zucco within the framework of the EU-funded structural-change project GENIS-LAB, critically reviews the concept of excellence and its underlying criteria, showing how it leads to the structural discrimination of women. http://www.genislab-fp7.eu/images/Review%20Assessing%20Excellence.pdf

5. *'Excellence in university academic staff evaluation: a problematic reality?'* (2015). This paper by Pat O'Connor and Clare O'Hagan draws on work undertaken within the EU-funded structural-change project FESTA and was published in the journal *Studies in higher education.* http://www.festa-europa.eu/sites/festa-europa.eu/files/O'Connor%20and%20O'Hagan%20Excellence%20Studies%20in%20Higher%20Ed.pdf

6. *Constructing excellence: the gap between formal and actual selection criteria for early career academics* is a working paper (No. 2) developed within the framework of the EU-funded structural-change GARCIA project. It examines the notion of excellence by comparing formal and actually applied selection criteria. http://garciaproject.eu/wp-content/uploads/2015/06/GARCIA_report_wp2D1.pdf

7. Several 'unconscious bias tests' can be found on the Internet. Project Implicit is frequently referred to: https://implicit.harvard.edu/implicit/takeatest.html. This is also the test which Facebook staff are invited to take before attending the training on managing unconscious bias. The video modules of this training are online at: https://managingbias.fb.com/

8. In the article *Science faculty's subtle gender biases favour male students* (2012), Corinne Moss-Racusin and colleagues report on a study that statistically demonstrates the bias in favour of male (John) versus female (Jennifer) candidates, based on identical CVs (except for candidates' first names). http://www.pnas.org/content/109/41/16474.full

9. The article *Student evaluations of teaching (mostly) do not measure teaching effectiveness* (2016) by Boring et al. reveals gender bias in the evaluation of male and female professors by students. https://www.scienceopen.com/document_file/25ff22be-8a1b-4c97-9d88-084c8d98187a/ScienceOpen/3507_XE6680747344554310733.pdf

10. The report *Exploring quotas in academia* (2015), published by EMBO and the Robert Bosch Stiftung (Germany), discusses the use made of quotas, their potential benefits and potential harms. It also presents options for the implementation of specific types of quotas. Among others, the above-mentioned cascade model is discussed. http://www.embo.org/documents/science_policy/exploring_quotas.pdf

11. Van den Brink, M. and Benschop, Y. (2011), 'Slaying the seven-headed dragon: the quest for gender change in academia' *Gender, Work and Organisation*, Volume 19, Issue 1, pp. 71-92, January 2012. This academic article is based on an empirical study from the Netherlands and discusses practices that should bring about gender equality, showing how these interact with gender inequality practices. https://www.researchgate.net/profile/Marieke_Van_den_Brink/publication/216897590_Slaying_the_seven-headed_dragon_the_quest_for_gender_change/links/0469e8ce5718ac3e7c8bda72.pdf

12. *The WAVE employer case studies: from evidence to action on gender pay gaps* (2015) from the Women adding value to the economy project presents explanatory factors for the gender pay gap as well as a set of actions to tackle the problem. http://www.cardiff.ac.uk/__data/assets/pdf_file/0008/112796/CU-WAVE-Research-Review-Employer-Workforce-and-Pay-Case-Studies.pdf

Examples related to recruitment and selection:

Women represented in all rounds of applications

University of Copenhagen (UCHP), Denmark

Different specific initiatives have recently been implemented at the University of Copenhagen (UCHP) (Denmark) related to announcement processes for vacant positions, recruitment and assessment of applications. For instance, UCHP is now requesting at least one applicant of either sex before a vacant post can be filled and, similarly, there has to be at least one person of each sex in all appointment and review committees. UCHP has also begun to reassess the way position vacancies are announced, and they have introduced the use of search committees, which are to look carefully for promising candidates (inter)nationally, prior to the filling of research positions.

Age limit extension in calls for female researchers with children under 10

Hungarian Academy of Sciences (HAS), Hungary

In March 2009, the Hungarian Academy of Sciences (HAS) accepted an equal opportunities framework programme (Presidential Decision No 13/2009. II. 24). One element of the framework programme is the extension of age limits for female researchers who have children under the age of 10. This means that all calls of the HAS (scholarships, fellowships and grants) with an age limit, the age limit is extended by two years after each child under the age of 10 for female and male researchers who can certify that they stayed with the child(ren) on parental leave. The academy also extended the scope of the programme to single parents.

Examples related to career progression:

Stimulating personal development to improve women academics' positions

Radboud University (Netherlands)

In September 2010, Radboud University (Netherlands) started a mentoring programme for women academic and administrative staff. After a positive evaluation, it was decided to continue this programme, but exclusively for women academics. The programme organises mentor groups for talented scientists to gain more insight into their current work position and what activities and skills are necessary for them to grow. There is room for about 35 female participants. Evaluation of the programme has shown that the mobility of scientists can be improved by mentoring, e.g. many received important grants and improved their position. The aim of the programme is to provide practical support and advice for women talents (particularly post-docs, assistant and associate professors), who want to develop their academic careers. The mentoring trajectory is custom made: mentees choose their own mentor (men or women preferably from another faculty or department). In a series of interviews it will often be the mentee who determines the themes and topics to discuss. The mentor can help the mentee with: their personal and professional development, gaining a better understanding of the organisation, establishing useful contacts and gaining new access to networks. On average, mentees have five to six meetings with their mentor per trajectory, which maximally takes up to one year. In addition to the mentoring programme, a career coach can be contacted within the human resources department. Approaching a coach is based on the outcomes or specific needs of the mentoring programme. The goal of coaching is to deepen the themes from the meetings with the mentor even further. The programme includes several workshops and peer-reviews with colleagues. For example, there are workshops on networking, negotiating or personal branding.

Participatory approach towards the development of career development plan

Trnava University, Slovakia

In 2013, Trnava University developed a GEP as part of project proposal of the EU-funded structural-change GENO-VATE project. This plan contained a measure aiming at developing a career development plan (CDP) for the university research employees. The project team opted for a participatory approach in developing a CDP, which consisted of: mapping the existing situation in two university's faculties, collecting sex-disaggregated data on research and education employees, interviewing the human resources department of the rectorate and personnel administrators of both faculties, carrying out surveys among research employees and several questionnaires on gender equality distributed within awareness-raising activities. On the basis of collected information, the proposal for a CDP was developed. The inclusion of surveys, questionnaires and discussions into the process of developing policies served not only as an example of evidence-based policy-making, but also contributed to raising awareness on gender equality and the policy itself, and to create a sense of ownership within the two faculties.

High-profile tenure-track positions for top female scientists

Delft University of Technology (DUT), Netherlands

Delft University of Technology (DUT) is aiming to substantially increase the number of top female scientists. To help accelerate this, the Delft Technology Fellowship (initiated in 2010) offers high-profile, tenure-track positions to top female scientists in research fields in which the university is active. Currently, 12 % of full professors are female. The goal is to increase this percentage up to 20 % in 2020. Five-year fellowships are awarded to outstanding female scientists from any country and from any of the existing disciplines in the university, who are currently not employed by DUT. These fellowships are awarded at the assistant, associate or full professor levels. As fellows, women will be offered the unique chance to establish their own research programme of international repute, including a generous start-up funding (EUR 100 000 for assistant professors, EUR 200 000 for associate professors and EUR 300 000 for full professors). Candidates can write their own research proposal (not restricted by specific available positions). An informal mentoring scheme is available for fellows to get to know the university and the Dutch (research) environment. In addition, fellows participate in a university-wide introduction programme and in the personal development programme. Following a positive evaluation at the end of (a maximum of) five years, the fellow is awarded tenure. Having been awarded tenure, the fellow will follow the regular career path for scientists at DUT. If in the fourth year of the tenure track the fellow has not achieved the expected goals for that period, the fellow is offered career advice to help explore employment opportunities elsewhere.

3.2.6 Leadership and decision-making

The leadership of the institution and its decision-making bodies need to be gender-balanced for the organisation to truly live up to its values. Women and men should have equal access to and a balanced participation in leadership and (formal and informal) decision-making structures. Decision-making itself has to be gender-sensitive (or gender-responsive) because it takes into account gender differences and aims at promoting gender equality.

Useful to know:

1. Women are sometimes reluctant to apply for decision-making positions, especially in male-dominated contexts. This can be explained by a variety of factors. The still very masculine image of science, the way informal networks continue to function in selection processes and the fact that the bulk of high-level positions remain occupied by men are just some of the elements that convey the message that there is no place for women at the top.

2. Establishing open, cooperative working relations and a culture of respect contribute to building a working environment in which everybody can have confidence. At the same time, it is worth supporting and encouraging women to apply for decision-making positions all along their career trajectories.

3. When the top of the organisation explicitly supports gender equality, legitimacy is given to the issue and all can feel safe raising gender matters when decisions need to be taken.

4. Remember that gender balance in leadership and decision-making positions is a key concern at the EU level. The Council conclusions on advancing gender equality in the European research area (adopted in December 2015). http://data.consilium.europa.eu/doc/document/ST-14846-2015-INIT/en/pdf invited relevant authorities to set up guiding targets, for example quantitative objectives, for better gender balance in decision-making bodies including leading scientific and administrative boards, recruitment and promotion committees as well as evaluation panels. Research funding and performing organisations are encouraged to reach these targets by 2020.

Existing tools and resources:

1. *Charter for more women in management* is a baseline report prepared by the University of Copenhagen.

   http://mangfoldighed.ku.dk/english/pdf/Charter_for_More_Women_in_Management_-_University_of_Copenhagen_baseline_report.pdf

2. *Methodologies and measures for analysing informal decision-making and communication processes* (2015) is a report produced in the context of the EU-funded FESTA project. It looks into transparency and inclusivity in the informal decision-making and communication processes, and formulates suggestions to foster a more active participation of women in all the decision-making and communication processes. http://www.festa-europa.eu/sites/festa-europa.eu/files/4.2..pdf

3. *Gendering decision-making and communications processes* (2015). This report, developed in the context of the EU-funded FESTA project, shows how power works in

organisations and provides recommendations for more transparency in decision-making processes to progress gender equality. http://www.festa-europa.eu/sites/festa-europa.eu/files/4.1.1.%20Gendering%20Decision%20Making%20and%20Communications%20Processes.pdf

4. E-learning package on gender competent leadership in Academia developed by the EU-funded GENOVATE project. Section 4 of this tool (How to overcome the barriers) illustrates strategies and interventions to promote gender- and diversity-competent leadership. http://www.genovate.eu/modules/gender-competent-leadership/genovate5.html

Examples:

Election procedure for the board

Ghent University, Belgium

In 2014, Ghent University (Belgium) changed its procedures for the election of its highest decision-making body, the board of governors (*Raad van Bestuur*) by requesting a 40/60 % gender-balanced representation of its members. As soon as the new procedure was implemented for the first time, it instantly changed the university's male-dominated board: gender balance was achieved for the first time in the university's history. In the new procedure, faculties are required to have at least one male and one female candidate for the elections. If the elections have an unbalanced gender outcome (not respecting the minimum 40/60 gender balance) the candidate with the least votes from the over-represented sex (compared to other faculties) has to give way to the faculty's candidate of the other sex with the highest number of votes.

Gender-integrated leadership programme

Lund University, Sweden

In 2004, Lund University (Sweden) launched a gender-integrated leadership programme (AKKA). Within this programme, leadership is understood as something that can be learnt and developed, and that focuses on the individual´s competences, and not on personal characteristics. The AKKA programme aims at raising gender knowledge and awareness, and providing methods and tools for structural change in order to achieve sustainable gender equality. From 2004 to 2014, five AKKA programmes have been offered for 150 senior scholars in Lund University (Sweden) (of which 37 were men). The programme runs over a year with monthly meetings. Throughout the years, AKKA has increased the number of women in leading positions, contributed to an enhanced visibility of women as potential leaders, increased the willingness of both women and men to assume leadership positions, raised gender awareness among female and male academic leaders, promoted networking and collaboration within the university, raised knowledge about the university's politics and activities, developed tools to deal with resistance to gender issues and for change management, contributed to highlighting discrimination, and developed concrete change projects.

Elections for the university council

Siauliai University (SU), Lithuania

The EU-funded structural-change INTEGER project has taken on a pioneering role at Siauliai University (SU) and in Lithuania as a whole. This project was fundamental to promoting institutional transformation in a higher education institution. During the project's implementation, the university's council elections were planned to take place. Considering the striking under-representation of women in the council, the SU Council election tactics and strategy plan were developed within INTEGER in order to encourage a gender-balanced representation of the council. Several activities were undertaken in order to empower female candidates to run in the university's council elections, such as: communication with the highest management staff at SU through formal meetings; consultation with the university lawyer about the possible ways of making women representative in the council's election; participation in the preparation of the election regulations; and a search for women candidates from SU representatives according to criteria such as loyalty to the university and commitment to implementing gender equality at the university. As a result of these initiatives, the number of women to the council significantly increased from 0 % in 2011 to 36.3 % in 2014.

3.2.7 Combating sexual and gender-based harassment

The fields of research and higher education are not immune to sexual and gender-based harassment. Actions are needed to put an end to this behaviour, such as: providing information regarding sexual and gender-based harassment, and offering attention and support to victims and witnesses of misconduct, with a commitment to putting an end to such behaviour.

Useful to know:

1. Sexual and gender-based harassment is a problem that tends to be underestimated in research organisations and universities. However, recent analyses and reviews, undertaken among others in the context of EU-funded structural-change projects, have revealed the pressing need for action against this problem.

2. Institutions may find it sufficient to treat sexual harassment under existing policies and procedures. Increasingly, however, institutions consider it necessary to set up dedicated structures and/or to issue specific procedures and instruments. In any case, the institution must make clear that it does not tolerate abuses in any form, neither physically nor psychologically.

3. Educational programmes about sexual and gender-based harassment may prove useful in preventing its occurrence.

Existing tools and resources:

1. *Guidelines on dealing with sexual harassment,* developed by Sciences Po (Paris) in the context of the EU-funded structural-change EGERA project http://www.sciencespo.fr/com/SciencesPo_Guidelines_on_dealing_with_sexual_harassment.pdf

4. *Guidelines for the prevention of sexual harassment, harassment on the grounds of sex and psychological harassment* (2015). This concise guide was developed by the Polytechnic University of Madrid in the context of the EU-funded structural-change TRIGGER project. https://triggerprojectupm.files.wordpress.com/2014/10/guia_acosodiscriminacion20150428_review_eng.pdf

5. *Preventing and responding to gender-based violence — guidance for SOAS students and staff* (2015), from the SOAS University of London. This document presents awareness-raising and prevention initiatives as well as guidance for victims and those supporting victims. https://www.soas.ac.uk/equalitydiversity/gender-based-violence/file107475.pdf4þ

6. The intervention initiative toolkit (2015), developed by the University of the West of England (UWE) for the prevention of sexual coercion and domestic abuse in university settings. http://www1.uwe.ac.uk/bl/research/interventioninitiative/thetoolkit.aspx

7. *Vademecum on sexual harassment in higher education and research* (2015) (in French only). This guide aims at supporting institutions to set in place actions to fight sexual harassment. It responds to the questions of various institutional actors, directly or indirectly concerned by the topic (human resources services, juridical services, management, health providers, equality officers, etc. http://www.anef.org/wp-content/uploads/2015/11/vademecum-harcelement-sexuel-universite-web.pdf

Examples:

Protocol for preventing and tackling sexual harassment and gender-based violence

Paris Institute of Political Studies (Sciences Po) (Paris, France)

Fighting sexual harassment ranked among the priorities of the GEP adopted by the university Paris Institute of Political Studies (Sciences Po) (Paris, France) as part of the EU-funded structural-change EGERA project. A comprehensive protocol was designed to monitor, report and take action about potential cases. This protocol targets all categories of users, including students, teaching staff, researchers and other staff. It aims at building an atmosphere based on mutual respect, to prevent any illegal behaviour and to offer victims or witnesses of gender-based violence or harassment a safe environment to report, ensuring the privacy of what they communicate. A monitoring unit consisting of 11 staff was established, who are in direct contact with the different categories of users of the university and the gender equality officers. The members of this unit receive training on a yearly basis. It also includes the dissemination, both in French and English, of guidelines on sexual harassment, as well as a dedicated hotline and postal address, permanently displayed on the internal information system of Sciences Po.

3.2.8 Integrating gender in research and education content

Integrating the gender dimension into research and education content means taking into account the biological characteristics and the social features of both women and men, girls and boys. Our knowledge is the basis on which future generations will build their societies. It is therefore crucial that the **knowledge** which is **created through research** and **transferred through education** is free of gender bias.

Particularly, when relevant, **research and innovation activities** need to critically examine both gender differences and inequalities. The added-value of integrating a gender dimension into research and innovation allows: 1) ensuring excellence and quality in outcomes and enhancing sustainability, 2) making research and innovation more responsive to social needs and 3) developing new ideas and fostering innovation. Through the inclusion of a gender dimension in research and innovation content, gender biases are more likely to be tackled, properly addressed and eliminated.

Also, as **education** forms our future scientists, young people need to be taught about the gender aspects of their disciplines and trained to perform gender-sensitive research.

Useful to know:

1. A subject is considered **gender relevant** when it can be expected that its findings affect (groups of) women and men, or girls and boys, differently.

2. Integrating the gender dimension in the research content requires the **consideration of sex and gender aspects throughout all stages of the research cycle**: from the definition of research questions and hypotheses, the selection of research methods and during the running of research activities, to the analysis and reporting of results.

3. **STEM research topics** often appear as gender-neutral. In such cases, the following questions can be asked about aspects that are not gender-neutral: who decides on the research agenda; whose interests and needs are served with the research; who will be the users of the knowledge that is to be produced; who can benefit and in which way from the research? It is always relevant to produce research that has a high societal value and can provide answers to societal needs.

4. Teachers' and lecturers' interactions with students are unconsciously influenced by **gender stereotypes**. Young people also hold stereotypical beliefs about women's and men's 'natural' abilities. Countering such stereotypes allows for everyone to engage with science in all its aspects without constraints set by ungrounded preconceptions.

Existing tools and resources:

1. Research and Innovation

   (a) *Toolkit — gender in EU-funded research*. This toolkit clearly explains and provides guidance on how to integrate gender in research. It addresses both the gender dimension of research content (with case examples from nine different scientific fields) and women's participation in research activities. One-day training sessions, based on the toolkit, can be organised. http://www.yellowwindow.com/gender-inresearch/index_downloads.html

   (b) *Gendered Innovations*. A website providing recommendations, examples, case studies and tools for sex and gender analysis in research content for various scientific fields. http://ec.europa.eu/research/swafs/gendered-innovations/index_en.cfm?pg=home

   (c) *Videos* by Londa Schiebinger e.g. https://www.youtube.com/watch?v=GAOLxEpHrwQ on the gender dimension in research content.

   (d) The Canadian Institute of Health Research's website has a number of free *training modules on how to deal with sex and gender in health research*. http://www.cihr-irsc-igh-isfh.ca/?lang=en. Here is the link to the first module on 'Sex and gender in health research': https://www.youtube.com/watch?v=fdftL6S94hs [insert image of the video]

   (e) The EU-funded EUGENMED project focused on the identification of focal areas of work where sex and gender play a major role in medicine. This consortium developed a *Roadmap for a gender-sensitive approach to healthcare research and practice in Europe* http://www.eugenmed.eu/images/final_conference/Background_Brief_090615.pdf, among other resources (such as policy briefs) http://www.eugenmed.eu/index.php/policy-briefs

2. Research and teaching

   (a) *Toolkit for integrating a gender-sensitive approach into research and teaching* prepared by Jovana Mihajlović Trbovc and Ana Hofman within the EU-funded structural-change GARCIA project. http://garciaproject.eu/wp-content/uploads/2015/12/GARCIA_working_paper_6.pdf

3. Teaching

   (a) The *Guidelines on gender fair curriculum development* (2010), an Austrian publication, present a diagnosis tool and a catalogue of aspects to be considered for developing a gender-fair curriculum to improve equality of access and success for both male and

female students in higher education. http://www.wus-austria.org/files/docs/Publications/guidelines_gender_fair_curriculum_development.pdf

(b) *One size fits all? Enhancing gender awareness in teaching.* A publication from the EU-funded TWIST project. http://www.the-twist-project.eu/media/dyn/TWIST-Onze_size_fits_all.pdf

(c) *A syllabus bank for higher education courses on gender and politics*, collected by the Standing group on gender and politics of the European consortium for political research. http://www.ecpg.eu/syllabus-bank.html

(d) The Gender bias learning website is a rich resource for teaching about gender bias patterns, reviewing knowledge of gender bias patterns and teaching strategies for managing gender bias. http://www.genderbiasbingo.com/web-based-teaching-and-training/#.VpTlaPkrKUk

(e) The ATGENDER book series *Teaching with gender* collects articles on a wide range of teaching practices in the field of gender. http://atgender.eu/category/publications/volumes/

Examples:

Gender lectureship: a model for mainstreaming in higher education

Linköping University, Sweden

Following the rationale that gender mainstreaming is possible within every subject, in 2005, Linköping University (Sweden) created gender lectureships in order to assist its faculties on how to mainstream gender equality. The gender lectureships are established by the Vice-Chancellor and aim at actively contributing to mainstreaming gender within the content of study programmes and courses, and at developing pedagogical models for gender-sensitive teaching and gender equality in higher education. Education must be provided in such a way that women's and men's experiences and knowledge are developed in a gender-sensitive way. This is important to counteract unequal power relations between women and men. During the last decade, gender lectureships have been contributing to continuous work on gender-mainstreaming at Linköping University. In practical terms, the gender lectureships provide resources, competences and sustainability to gender-mainstreaming work. It is a programme that continuously addresses gender issues within the structure of the university. It aims to ensure that gender is mainstreamed in all study programmes, including at PhD level.

3.2.9 Analytical measures, targets, indicators, monitoring and evaluation

Collecting, assessing, reviewing, analysing numbers, data, procedures and practices enable optimal planning and implementation of gender equality work. A GEP or any other gender equality ad-hoc initiatives need to be grounded in evidence. An initial assessment of the state-of-play of gender equality in the institution usually includes a statistical analysis of sex-disaggregated data and a documentary analysis of national legal and policy documents, along with the organisation's strategic and operational documents. This analysis will provide pertinent insights to decide on the measures or actions required to progress gender equality (see here: 'How to analyse and assess the state-of-play in the institution'). Then, it is important to set **targets** and to follow up the implementation of measures or actions in order to monitor the progress, as well as to improve measures or actions along the way. Finally, once measures or actions are concluded, it is pertinent to evaluate them in order to learn relevant lessons for future initiatives (see here: 'How to monitor progress and evaluate a GEP').

Useful to know:

1. While baseline data and information are necessary as input for tailoring a context-sensitive GEP, it is good not to spend too much time just collecting and analysing information. If necessary, complementary analytical efforts can still be undertaken when concrete activities have already started.

2. The best way to capture the status of gender (in-)equality in the organisation and to assess progress is by **combining the use of quantitative indicators with qualitative ones**. Gender-sensitive and gender-specific indicators are key to measuring gender-related changes over time. They can be quantitative (e.g. number of female and male researchers), or qualitative (usually used to capture/assess people's experiences, opinions, attitudes, behaviours and feelings). While quantitative indicators can provide statistical evidence of what has changed, qualitative analyses allow assessment of the quality of change and aid in understanding why certain patterns have occurred.

3. Remember that 'women' and 'men' are not monolithic groups and that differences in the situations of individuals within these groups might be bigger than those between the groups. Attention to the intersecting inequalities and the influence of other factors (like age, family status, contractual basis, etc.) is thus warranted.

4. Monitoring efforts not only allow measurement of the impact of initiatives and the progress made towards gender equality, they also enable identification of what can be improved. Monitoring is thus important for learning: to take on board the lessons from the practice and to improve what is carried out.

Existing tools and resources:

1. The *She figures handbook* can strengthen your capacity to systematically produce meaningful data as it provides methodological guidance on the calculation of indicators included in the *She figures 2015* publication. Organised by data source, information provided on each indicator includes a brief definition, rationale, computation method and any comments or critical issues for the reader to note. https://ec.europa.eu/research/swafs/index.cfm?pg=library&lib=gender_equality

2. The EU-funded structural-change project INTEGER developed a number of ready-to-use templates, to be used as tools, to support universities and research organisations in the assessment of their GEPs. http://www.integer-tools-for-action.eu/en/resource/assessment-toolkit

3. The EU-funded structural-change project STAGES provides in its guidelines some insightful recommendations to collect data and monitor gender equality. Take a look at pages 29-33 for more information. http://www.projectstages.it/index.php/it/archivio-speed-it/item/284-the-stages-guidelines-available-online

4. The EU-funded structural-change project FESTA http://www.festa-europa.eu/public/deliverable-321-tollkit-to-wards-raising-organizational-awareness developed a toolkit aimed at providing practical insights, examples and tools to collect and understand statistics (including indicators), and to translate these figures into awareness.

5. The EU-funded structural-change project GenisLab provides detailed instructions to carry out a participatory gender audit (PGA). A PGA is an action-research methodology that helps to 'map' an organisation from a gender equality perspective. This methodology combines an objective observation of facts and data with a more in-depth and qualitative reflection on individual and collective rules, behaviour, and beliefs, as well as their impact on gender equality. Download the complete GenisLab guidelines and tools for institutional change and read pages 29 to 55 http://www.genislab-fp7.eu/images/guidelines-EN.pdf

6. Sets of possible indicators on structural change in research organisations and higher education institutions are under development in a couple of EU-funded projects, e.g. Gender-Net http://www.gender-net.eu/ and EGERA http://www.egera.eu/. Keep an eye on their websites for updates on indicators.

Examples:

A survey to know your institution

University of Chemistry and Technology Prague (UCT Prague), Czech Republic

In line with recommendations for implementation of structural change, the gender equality implementation process must build on 'knowing the institution'. For this purpose an initial comprehensive institutional analysis was performed at the University of Chemistry and Technology Prague (UCT Prague) (Czech Republic). This analysis included 1) statistical data collection and analysis, 2) questionnaire survey of working conditions of both academic and administrative staff, work-life balance, mobility, research and teaching evaluation, 3) individual and group interviews, 4) documentary analysis, 5) media analysis and 6) analysis of legislative framework in the Czech Republic from a gender perspective. The research design and instrument were developed and the analyses performed by an external gender expert partner, the National Contact Centre for Gender and Science at the Institute of Sociology. These analyses served to identify bottlenecks and issues to be tackled through the GEP, and will be periodically repeated, to guide upcoming GEP implementation and actions and to guide institutional development at UCT Prague. Following the statistical data collection, the internal monitoring system was amended to include the variable 'sex' to facilitate monitoring in the future.

Gender equality report: monitoring progress towards gender equality in the university

University of Beira Interior (UBI), Portugal

The University of Beira Interior (UBI) was the first university in Portugal to set up a GEP. The pioneer work of UBI in this field is well-known in the country. A thorough initial assessment (2010-2011) of the gender equality state-of-play of the university preceded the development of the GEP. UBI's plan established as a measure the elaboration of sex-disaggregated statistics about teaching and non-teaching staff and students. Since 2012, gender equality reports have been prepared on an annual basis to monitor the progress towards gender equality in the university. These reports are publicly accessible and build on the initial assessment carried out early in the process of setting up UBI's GEP. The analysis provided in the reports considers the gender balance in terms of disciplines taught and decision-making and leadership positions, the gender-pay gap, the use of measures to reconcile professional and personal life (like flexible working hours), a gender analysis of the utilisation of leave, and information about the number of students disaggregated by sex and faculty.

Gender report

University of Beira Interior (UBI), Italy

The *'Bilancio di Genere'* (referred hereafter as gender report) of the University of Ferrara (Italy) is an action implemented by the Unique guarantee committee for equal opportunities in public administrations for workers' well-being and against discrimination (CUG) and the equal opportunities committee (CPO) since 2011. It is divided into four parts: 1) In the first (and most important) part it monitors the participation of women in the organisation among students, professors, clerical workers and all decision-making bodies; 2) It describes equal opportunities bodies in the organisation; 3) It describes the positive action plan (PAP) of the university and its objectives; and 4) It monitors what actions of the PAP have been realised. The gender report was firstly introduced by the first PAP (2011-2013) of the University of Ferrara as part of the social responsibility budget of the university. It is now part of the second PAP (2014-2016) as a monitoring action. The gender report of is considered a milestone in the Italian academic system. It uses quantitative methodologies to collect data on career trajectories following the EU's *She figures* indicators. The gender report is written in cooperation with the Statistical Office of the Italian Ministry of Education, University and Research (MIUR) and for the first time it has produced longitudinal data on the presence of women inside a university. Since 2011, the gender report has been made available on the website of the 'equality and diversity' unit of the University of Ferrara. The 'equality and diversity' unit received EUR 183 000 from the Department of Equal Opportunities (DPO) of the Italian Presidency of the Council of Ministers in order to create a gender report model — in the form of guidelines — and to propose that all Italian universities, public administrations and public corporations to apply this model, with the aim of harmonising data and collecting national indicators.

3.2.10 Incentives to promote gender equality

Both rewards and sanctions can push forward change towards gender equality by stimulating the desired behaviour among actors. Rewarding positive contributions has the potential to enhance the working relations and the organisational atmosphere. Incentives are, for example, (more) resources, special awards and honorary mentions, etc.

Useful to know:

1. Give proper visibility to the incentives to promote gender equality. Make sure that the target audience of these incentives is aware of their existence. Provide information on when and how to apply.

2. Define gender-sensitive and gender-specific criteria to apply to the incentive.

3. Be transparent about the selection process.

Existing tools and resources:

1. The EU-funded GENDER-NET project produced a report which analyses existing awards to promote gender equality structural change. This report assesses the impact of national and regional award schemes aimed at creating greater gender equality, and their ability to stimulate gender equality and enact structural change with regard to gender equality in research institutions. http://www.gender-net.eu/IMG/pdf/D2-7_-Analysis_report_on_existing_gender_equality_awards_and_corresponding_stimulatory_initiatives_ECU_.pdf

Examples:

Encouraging gender equality activities at the grassroots level across the university

University of Helsinki, Finland

Between 2002 and 2011, the University of Helsinki (Finland) made funding available for small-scale gender equality projects across the university. The funding increased grass-roots engagement in gender equality work, helped to identify and address the specific problems and needs of different faculties and departments, and created permanent networks and good practices. Over the course of 10 years, gender equality projects were implemented at all levels: in faculties, departments and units. A broad range of disciplines from almost all faculties was represented, including gender studies, veterinary medicine, theology, mathematics, political sciences, law, educational science, biosciences and physics. In most cases, the initiative came from staff or students, and the project was planned together with the leadership. The projects included gender equality trainings, initiatives to integrate a gender dimension into teaching content in different disciplines and gender impact assessments of ongoing reforms. Several faculties and departments conducted in-depth studies to assess their respective gender equality situations and identify ways to improve it. Hands-on gender equality projects in male-dominated disciplines, such as mathematics and physics, took steps to improve the position of women students and researchers. In some cases, follow-up funding to make use of the knowledge and tools developed in previous projects was applied and granted. The results of the projects were presented to the whole university in annual gender equality seminars that provided visibility and the possibility of exchanging experiences. The concrete results (e.g. studies, tools, reports) were made available in the intranet of the university as good practices to be learnt from and used.

Introducing a gender perspective in research content and teaching

University of Santiago de Compostela (USC), Spain

Since 2010, a gender perspective in research content award is organised on an annual basis by the University of Santiago de Compostela (USC) (Spain). The award aims to recognise and make visible existing research projects and teaching practices that stand out for integrating a gender dimension in research content. Six prizes are awarded annually: three for teaching achievements (excluding gender-specific courses) and three for research projects in any field (which integrate a gender dimension in hypothesis formulation, research design, methodology, research processes or the dissemination and publication of results). The award is fostering synergies with other initiatives undertaken by the university such as gender training and conferences. The award is bringing more visibility to gender in research and teaching. Furthermore, synergies were activated with other parallel initiatives (such as conferences and trainings) on which awardees have the possibility of sharing their research findings or how they managed to introduce a gender perspective in their teaching activity (including obstacles and resistances faced and how these were overcome).

4. Relevant insights

The insights provided below feature in and are copied from the STAGES Guidelines. They are based on the extensive experience gained by the STAGES partner organisations throughout the project lifetime. These insights provide valuable input for anyone interested in setting up and implementing a GEP in their research organisation or university.

Source: Marina Cacace, 'Introduction', in Cacace, M., Balahur, D., Bleijenbergh, I., Falcinelli, D., Friedrich M., Kalpazidou Schmidt, E. (eds.), *Structural transformation to achieve gender equality in science*, Guidelines, STAGES Project, 2015, pages vii-ix.

http://www.projectstages.it/index.php/it/archivio-speed-it/item/284-the-stages-guidelines-available-online

Context-sensitive implementation and mutual learning

A first consideration concerns the strong contextual character of the implementation process. It repeatedly emerged from observation that similar actions have taken on different meanings and produced even very different results in the five action plans based on contextual factors, the most important being the general organisational set-up (organisational structure, culture and values, leadership style); the existence and type of internal actors involved in gender equality; and the cognitive and cultural attitudes of the main stakeholders to gender equality issues. As a consequence, different strategies and specific tools and methodologies were applied to the same actions across the plans, tailored to the local environment and based on local negotiation strategies. Mutual learning meetings highlighted these differences. A session held on networks showed, for instance, the very different purposes served by women researchers' networks in the various plans, and their varied understandings. This suggests how useless it would be to just replicate the set of measures which proved effective in a given context without properly reinterpreting and adapting them. Exchange among partners supports the reflexive attitude needed in this regard.

'What do you mean by gender equality?'

All the action plans had to constantly negotiate the meaning of gender equality in relation to the different actions they promoted and the different stakeholders involved. Very often, the first thing to negotiate was the very understanding of the words used and, therefore, the real objective of the action plan. If the word 'discrimination' was generally ruled out, as it evokes the victimisation of women researchers while pointing to the existence of intentional behaviour against them, it was the whole 'gender equality' thing that created more or less occasional discomfort among specific groups of stakeholders or in the organisation at large. In these cases, besides increasing awareness-raising efforts, the teams engaged in highlighting the many different grounds for supporting the action plan, by framing gender equality actions as addressing emergent priorities and widely recognised challenges for the organisation (attracting talents and research funds, scientific competitiveness, internationalisation). Stressing 'diversity' over 'equality' also proved beneficial in some contexts, without losing sight of the specific and cross-cutting relevance of gender diversity.

Fixing it all

The five action plans chose to include, in different proportions, measures directly addressing women researchers, measures orientated towards changing the institutions and measures questioning the neutrality of scientific disciplines. While traditionally these three types of measures are presented as opposed to one another, in a sort of evolutionary continuum, the experience of the STAGES project suggests that in reality they tend to overlap and that some appropriate perspectives and tools can help to address the three levels jointly, thus magnifying the impact of the actions. It is important, above all, to avoid the deficit-model perspective (as if women needed more teaching than men), and instead adopt a structural-change perspective. In this way, even actions directly addressing individual women can take on a structural character in that they can produce modifications affecting the entire organisation, in cultural, but also in organisational and normative terms.

Building on existing resources

In the action design phase, the teams not only conducted an appraisal of the problems they had to address but also worked to identify the resources available within and outside the organisation. These resources, understood in the broad sense, include data-collection procedures, existing policies and services, internal groups or structures, communication tools, as well as supportive attitudes among the leaders, or the existence of external institutions pursuing objectives in line with those of the action plan. Preliminary mapping was, therefore, frequently conducted for different resources, aiming at reducing expenses and effort, as well as fostering an increased integration of the actions within the organisation, gaining greater visibility and support, involving additional stakeholders.

From the top-down, from the bottom-up, and from the outside

Actions that could bridge top-down and bottom-up approaches were of great impact. This happened, for instance, when structured occasions were provided for the leadership to be in direct contact with the researchers and their networks to discuss issues of common interest. It also happened when peer-to-peer activities were given an institutional context to support and connect them to the organisation. Cooperation with external stakeholders, such as national or local authorities, also proved decisive in some cases, particularly when there were initial difficulties in making contact with the internal leadership, because external support and recognition raised project visibility and status internally.

The timing of change

Even though the participating organisations were very different in many respects, recurring patterns emerged in the time that was necessary for the action plans to develop. The initial phase was, of course, the most challenging and time-consuming, also because the teams were still in a running-in phase and internal cooperation was yet to fully develop. It can be said, albeit with some generalisation, that it took no less than a year to get the plans on the right track, with a cohesive and structured team and significant internal visibility. After that, 'cruising speed' was reached: things were easier and all the teams started to cooperate with a growing number of stakeholders, while activities developed as planned. In various cases, an acceleration process occurred halfway though: things sped up and the teams met less resistance, enjoyed more and more visibility and received requests to cooperate with the institution on a more structural basis. It is however impossible to understand what the permanent results of just four years of implementation will actually be. International experience shows that longer times are needed for deep and lasting change. The relevance of sustainability planning (see below) cannot be overemphasised in this regard.

Continuously evolving plans

Action plans were designed before the starting date of the project, while an executive and more detailed planning was made in the first period of implementation and repeated at the beginning of each year. What clearly emerged is that the action plans constantly needed adaptation and redesign to keep the project relevant to emerging contextual situations, needs and priorities of the organisations. In some cases, redesign was key to the success of the action plan, since the team succeeded, with time and experience, in grasping the real triggers for change and arranged actions and resources accordingly. This points to the need to not go overboard with an overtly detailed and structured ex-ante design. It is more important to keep the plan open to new needs and opportunities.

The dynamic planning of sustainability

Dynamic planning is also necessary when it comes to providing for the future sustainability of the actions initiated under a funded programme. What the STAGES experience shows is that the quest for sustainability starts from the very beginning, through the arrangements which are set up for implementation, which are then progressively scrutinised to get to viable solutions for securing their continuity. Several actions became sustainable from the start, while several attempts were needed in other cases to finally get to a solution which sometimes implied the need to redefine, modify, merge or otherwise transform the concerned actions. In some cases, transition phases are needed, where the teams still continue to cooperate in the delivery of the action by gradually reducing their efforts as new institutional actors take over.

5. Legislative and policy backgrounds

National contexts determine to an important extent the state-of-play as regards gender equality in research. Country-specific information on legislative and policy backgrounds, as well as other support measures to promote gender equality in research, for each of the European Union Member States can be accessed via the links in this section.

An analytical paper about the state-of-play in terms of structural change towards gender equality in research organisation can be downloaded from EIGE's website.

6. Key resources

Here you can find important resources and relevant weblinks, such as:

European Commission's web pages related to gender equality in research

1. The European Commission's e-library with key publications dealing with gender equality in research: https://ec.europa.eu/research/swafs/index.cfm?pg=library&lib=gender_equality

2. *She figures* provides key statistics on the position of women in science in the EU, across disciplines and academic positions. Latest issue: *She figures 2015* (and the *She figures 2015 — handbook)*, European Commission. Luxembourg: Publications Office of the European Union. https://ec.europa.eu/research/swafs/index.cfm?pg=library&lib=gender_equality

3. *European charter for researchers and a code of conduct for the recruitment of researchers* are two documents, addressed to researchers as well as to employers and funders in both the public and private sectors. These documents are key elements in the European Union's policy to make research an attractive career. http://ec.europa.eu/euraxess/pdf/brochure_rights/am509774CEE_EN_E4.pdf

    (a) The *Charter for researchers* mentions, among other things, that employers and funders 'should aim to provide working conditions which allow both women and men researchers to combine family and work, children and career. Particular attention should be paid, *inter alia*, to flexible working hours, part-time working, tele-working and sabbatical leave, as well as to the necessary financial and administrative provisions governing such arrangements' (p. 17). It also emphasises gender balance, stating that, 'Employers and/or funders should aim for a representative gender balance at all levels of staff, including at supervisory and managerial level. This should be achieved on the basis of an equal opportunity policy at recruitment and at the subsequent career stages without, however, taking precedence over quality and competence criteria. To ensure equal treatment, selection and evaluation committees should have an adequate gender balance.' (p. 18)

    (b) *The Code of conduct for recruitment* mentions, among others, that selection committees should have an adequate gender balance, that the recruitment process and criteria need to be transparent and that for the assessment of merit, both quantitative and qualitative criteria have to be taken into consideration. (pp. 25-26)

4. European Commission (2012), *Structural change in research institutions: enhancing excellence, gender equality and efficiency in research and innovation*, Luxembourg: Publications Office of the European Union. [URL to the pdf version of the report]

5. European Commission (2013), Fact sheet: *Gender equality in Horizon 2020*, Luxembourg: Publications Office of the European Union. [URL to the pdf of the publication]

6. European Commission (2014), *Gender equality in Horizon 2020*, Luxembourg: Publications Office of the European Union. The purpose of this guide is to provide the Commission/agency staff, potential applicants, the Helsinki group, national contact points, as well as expert evaluators and other actors involved in the implementation of Horizon 2020 with practical guidance on the effective application of the current gender equality provisions. This means that integrating gender equality issues at each stage of the research cycle: from programming through implementation, monitoring and programme evaluation. http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/gender/h2020-hi-guide-gender_en.pdf

EU-funded institutional change and related projects

1. EGERA — Effective gender equality in research and the academia (2014-2017): www.egera.eu

2. FESTA — Female empowerment in science and technology academia (2012-2017): www.festa-europa.eu

3. GARCIA — Gendering the academy and research: combating career instability and asymmetries (2014-2017): www.garciaproject.eu

4. GENDER-NET: www.gender-net.eu

5. GENDER TIME: www.gendertime.org

6. GENERA — Gender equality network in the European research area (2015-2018): http://genera-project.com

7. GENIS LAB — Gender in science and technology lab (2011-2014): www.genislab-fp7.eu

8. GENOVATE — Transforming organisational culture for gender equality in research and innovation (2013-2016): www.genovate.eu

9. INTEGER — Institutional transformation for effecting gender equality in research (2011-2015): http://www.integer-tools-for-action.eu/en

10. LIBRA — Leading innovative measures to reach gender balance in research activities (2015-2019): http://www.eu-libra.eu/

11. STAGES — Structural Change Toward Gender Equality in Science (2012-2015): http://www.projectstages.it/index.php/en/

12. TRIGGER — Transforming institutions by gendering contents and gaining equality in research (2014-2017): www.triggerproject.eu

Resources from the European Institute for Gender Equality

1. European Institute of Gender Equality (2015). Report: *Online discussion on integrating gender equality in universities and research institutions*, EIGE: Vilnius. http://eurogender.eige.europa.eu/sites/default/files/Online%20discussion%20on%20integrating%20gender%20equality%20in%20universities%20and%20research%20institutions_0.pdf

2. EIGE's institutional transformation tool offers guidance on structural change towards gender equality in public administrations. [URL to the tool]

3. EIGE's online tool on gender training. [URL to the tool]

4. Eurogender's Stakeholders Directory to find gender experts and trainers in your country. http://eurogender.eige.europa.eu/members.

Relevant documents from the Council of the European Union

1. Council of the European Union (December 2015), *Council conclusions on advancing gender equality in the European Research Area*, Brussels: Council of the European Union. http://data.consilium.europa.eu/doc/document/ST-14846-2015-INIT/en/pdf

Literature about gender equality in research

1. League of European Research Universities (2015), *Gendered research and innovation: integrating sex and gender analysis into the research process*. http://www.leru.org/files/publications/LERU_AP18_Gendered_research_and_innovation_final.pdf

2. League of European Research Universities (2012), *Women, research and universities: excellence without gender bias*. http://www.leru.org/files/publications/LERU_Paper_Women_universities_and_research.pdf

3. A summary of selected literature on institutional transformation in research organisations, presented in three sections: 1) disparities between women and men; 2) subtle gender bias; 3) solutions and best practices. https://genderedinnovations.stanford.edu/institutions.html

4. A bibliography on cognitive bias and gender stereotypes, from the Gender Bias Learning Project. http://www.genderbiasbingo.com/bibliography-on-cognitive-bias-and-gender-stereotypes/#.VpTHAPkrKUk

5. Rice, C., (no date). *6 Steps to gender equality: and more essays about how every university can get more women to the top and why they should*, Tromsø: University of Tromsø. http://curt-rice.com/wp-content/uploads/2012/11/6-Steps-to-Gender-Equality1.pdf

6. Horvath, M., *Gender Equality at European universities of science and technology*; based on the CESAER Gender Equality Survey 2014. http://www.cesaer.org/content/assets/docs/Docs2015/CESAER_Gender_Equality-oct15_incl_annexes.pdf

7. An annotated bibliography of recent studies covering gender bias in academia, while also taking intersectionality into account, is available at hastac (an interdisciplinarity community of humanists, artists, social scientists, scientists and technologists that are changing the way they teach and learn). https://www.hastac.org/blogs/superadmin/2015/01/26/gender-bias-academe-annotated-bibliography-important-recent-studies

Tools to support gender equality institutional change

1. The Athena SWAN Charter, managed by the Equality Challenge Unit in the UK. This charter scheme, promoting the advancement of gender equality, was launched in 2005 in the UK and in 2015 expanded to Ireland. http://www.ecu.ac.uk/equality-charters/athena-swan/

2. The StratEGIC toolkit is a rich resource, drawing on the experiences and insights gained by institutions that participated in the (US) NSF's ADVANCE programme for institutional transformation. The toolkit contains 13 strategic intervention briefs, 15 institutional portfolios and 11 videos featuring institutional change leaders talking about the experiences and challenges faced and sharing advice. http://www.colorado.edu/eer/research/strategic.html

8. The Norwegian committee for gender balance and diversity in research compiled on its website a set of resources that are relevant for those working on gender equality in the research field. It provides arguments, examples of GEPs and an overview of the applicable Norwegian legislation as well a set of possible measures that can be used to promote gender equality. http://eng.kifinfo.no/c62450/seksjon.html?tid=62496

Repositories and databases

1. GenPort: A repository of resources on gender and science. www.genderportal.eu

2. AcademiaNet is a database of outstanding female scientists from a variety of disciplines. This database can serve as a resource for identifying experts, (keynote) speakers, panellists, jury members, etc. http://www.academia-net.org/

3. Do you need to find a gender trainer to organise a training at your organisation? Search on Eurogender's *Gender trainer directory*. http://eurogender.eige.europa.eu/gender-trainers

EiGE

European Institute
for Gender Equality

http://eige.europa.eu

Publications Office