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Analysis of Policy Environments (D4.1)

FULL VERSION INCLUDING COUNTRY FICHES

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in collaboration with the Consortium

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GenPORT

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Executive Summary

- While all European Member States should have transposed EU directives into national legislation to ensure equal opportunities and treatment for women and men in the fields of employment, working conditions and social security, severe gaps occur between the declaration of policies and their implementation in the research sector specifically. This is confirmed by the fact that progress towards representative equality has been slow, with notable exceptions such as in some of the Western and the Nordic countries.
- The scope and the regulatory density of gender equality legislations differ to a great extent in the European member states. Due to the EU gender equality and anti-discrimination framework, basic provisions on gender equality, equal treatment/opportunity and anti-discrimination are in force. Apart from this, the main focus lies on the gender balance in decision-making and the reconciliation of work and family.
- Concerning higher education legislation, there is a great gap between those countries without any gender specific regulations and those countries which have a wide range of provisions on gender balance, gender in education and research, gender equality plans, gender officers, gender budgeting etc.
- Gender mainstreaming is the leading strategy adopted by the EU Institutions and most of the Member States for achieving gender equality in all areas of policy-making, including the research, higher education and innovation sector. Despite official commitment to mainstreaming gender, instituting a (national) infrastructure for realizing equality between women and men is still a strategic objective in many national systems, thus not (fully) in place.
- The policy approach of mainstreaming gender has led some countries to disperse responsibilities for gender equality without necessarily providing for adequate diffusion of gender expertise.
- National actors make use of hierarchical, procedural and evaluative steering instruments as well as combinations of those three types of policy steering for enhancing the effectiveness of policies.
- According to the data gathered, in all countries, regardless of the type of cooperation between funding agencies and governmental actors, funding agencies do not operate actively in the field of gender and science without governmental actors being active in the country too. However, in some countries, interventions in the field of gender and science in the research system are promoted solely by governmental actors without the active involvement of research funding agencies or other stakeholders.
- Governmental actors mostly hold mandates for monitoring and coordinating equality measures, as well as in implementing instruments in gender equality.
- According to our data, the majority of policy actors in the field of science and gender operate at a national level. Depending on the political structures of the different countries in general terms, and sometimes specifically to the higher education sector,

individual actors in gender and science operate nationally, regionally or locally. Regional governmental actors exist in the Nordic region under the framework of Nordic Council of Ministers, coordinating, among other policy fields, the research collaboration as well as gender equality policy collaboration of the five Nordic countries and related autonomous areas.

- All in all, the cross-country disparities between EU and associated countries regarding both the number of gender studies programmes and gender research centres, and the proportion of women in grade A positions draw a paradox picture: whereas the She Figures statistics show that women's representation in grade A positions is highest among Central and Eastern European countries such as Romania and Latvia, and lowest among Western and to some extent Southern European countries, e.g. Belgium or the Netherlands; when it comes to the potential of gender expertise by country, indicated by the number of gender studies programmes and gender research centres, we see a rather different picture. The numbers of gender studies programmes and gender research centres is relatively high in Western and North European countries (and Greece from Southern Europe as an exception), thus the data indicate the likelihood of there being a relatively high degree of gender knowledge and gender competence to consider gender aspects in research as well as in policy making. On the other hand, a high proportion of women in grade A positions does not necessarily mean there is a strong base for gender in research and thus good availability of gender competence.
- Although the analysis of the 91 instruments shows that the 'fixing the institutions'-approach has been implemented in many countries (15 of 21), the overwhelming amount of career advancement measures that exclusively address women suggests that direct support to women scientists still persists. Although instruments focusing upon women's recruitment, retention and career progression are still very prominent among most countries (16), strategies for structural change are very common, too.
- Numerous transformative approaches in the policy instruments we found combine strategies for structural change with career advancement actions, for example, but target and provide *incentives for organisations*. This reveals that (women's) inclusion or affirmative actions can certainly be part of a transformative approach implemented at the institutional level. Interestingly, in some countries very different measures with different approaches exist simultaneously, which include different targets, differently addressed genders and different types of practices. In these cases, a complex approach becomes visible and measures to advance, for example, are complemented – to different extents - by institutional and cultural changes and vice versa.
- Looking at the interrelation of institutional and national actors and programmes, the uniqueness of national policy infrastructures and the diversity of administrative systems indicate strong cultural and administrative integration, which makes it inevitable to analyse policy-making practices and processes with respect to the context of their implementation.

Introduction

The purpose of this report is to summarise the key ‘gender and science’ policy making infrastructures in Europe by reviewing the role of policy actors within the national science policy contexts, the issues that policies at different levels are addressing, and the key mechanisms by which they are doing so. The picture the analysis of policy environments generates informs all policy-related tasks of GenPORT. The report shall assist organising the portal’s resources and community building activities in a way that responds to policy makers’ realities. Furthermore it should be emphasised that this report is a supporting document for orienting the portal development and its communication activities. As such it feeds directly into the design and delivery of GenPORT’s topical policy briefs, maximising their utility for policymakers at a practical level¹. The report was originally written for internal use, since the interview material collected prior to the data collection for this report, did not provide sufficient information on the national policy environments throughout European member states. At request of the European Commission, the report was published in order to make all data collected on national policy environments accessible to the public.

Information provided through the analysis of national policy environments in this report is considered as one of three key information sources GenPORT produces to help optimising the utility of the portal to public policy makers and science managers. It should be used side-by-side the ‘User Needs Assessment Report’ and the ‘Thematic Research Synthesis’ topical reports for each of GenPORT’s gender and science-domains². The overall aim of the report is to help understand the key gender and science infrastructures, the placement of actors within the national science policy context, the issues which policies at different levels are addressing, and the key mechanisms by which they are doing so. Thus, the focus of this report is on the gender and science domains and only tangentially broaches the issue of other policy domains that flank the gender and science domains e.g. the domain of general gender equality or gender equality in national labour markets.

The analysis is based on data gathered by GenPORT partners and covers the following countries: Austria, Belgium, Croatia, the Czech Republic, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Responsibilities for the respective country clusters were distributed among the consortium as follows:

¹ For an updated version of the country fiches please visit the GenPORT site directly. Possible important updates of country activities, programmes and initiatives should be submitted to the portal itself:

<http://www.genderportal.eu>

² GenPORT’s Gender and Science domains comprise: Education and Training; Career Choices, Pathways and Development; Agenda setting, Policy and Implementation; Knowledge Production, Application and Communication; Histories and Futures.

Nordic countries (Örebro University, Sweden)	Iceland Sweden Finland	Denmark Norway
Anglo-Saxon countries (Portia, UK)	United Kingdom Ireland	Australia Mexico USA
Continental countries (GESIS - Leibniz Institute for the Social Sciences, Germany)	Belgium Netherlands Luxembourg France	Germany Austria Switzerland
Southern countries Fondazione Giacomo Brodolini, Italy)	Italy Spain Portugal	Greece Malta Cyprus
Central and Eastern European countries (Univerzita Mateja Bela, Slovakia)	Hungary Poland Slovakia Czech Republic Latvia Lithuania	Estonia Croatia Slovenia Bulgaria Romania

A series of interviews conducted with policy stakeholders of two main stakeholder groups: public policy makers at European, national or regional level and local science managers, did not establish a sufficiently harmonised information standard for each level of policy making (above the institutional level) that would have directly enabled an analysis of policy making environments. Thus, the consortium agreed to complement information on national legislation, policy actors, strategies and implementation instruments in the sphere of gender and science through desk research. GESIS provided GenPORT partners with a template for collecting information, advised on potential sources of information and guidance on what information was needed to outline specific gender and science infrastructures, the placement of (key) policy actors within the national science policy contexts as well as issues current policies address and key mechanisms by which they are doing so. The level of information gathered and analysed - first and foremost - is the one of national policy making in Europe. Each partner took responsibility to collect necessary information from their respective country cluster.

Information for the Southern country cluster was compiled by Fondazione Giacomo Brodolini following the available sources and reports on European and national level and by following the results from the country specific resource mapping and user needs assessment interview processes. Due to limited time and project resources, not all available resources were captured depending on the availability of key stakeholders for interviews and availability of tools and initiatives in existing databases. Given the limited resources a

decision was taken to focus efforts on those countries with a richer gender and science landscape.

Desk research for the Anglo-Saxon country cluster was conducted for each region by researchers at Portia, reviewed by an internal expert and another identified expert in each region before finalisation.

The research on policy environments in the country cluster of Central and Eastern Europe (CEE) was done mainly as a desk research by Univerzita Mateja Bela. This was due to a very limited number of experts on gender and science in these countries. The GenPORT cluster of CEE consists of 11 countries with 11 different national languages and a low level of development of the gender and science agenda. Most accessible documents that refer to the gender and science agenda, are written mostly in national languages and are rarely available in English, which complicated information retrieval. Another difficulty was the identification of people responsible for gender and science at various policy levels (from national to institutional levels) through official websites of the key institutions, since specific gender and science related positions rarely exist in the respective countries. For a large number of experts in CEE countries, responsibilities for gender or gender and science merely represent an addition to other main tasks and are not part of their expertise. Another challenge in these countries relates to the fact that there is a high turnover of people dealing with gender at governmental level. To summarise, the data on policy environments related to gender and science in CEE only presents the information that is accessible online and mainly in the English language, which was the main limitation of the task.

The Nordic region has a large extent of gender equality policies and initiatives, a long history with engagement in this area, a constantly changing and evolving policy environment in terms of gender and science, and the legislative frameworks alone covering employment and work-life balance are extensive. A comprehensive mapping of all relevant activities and policies would require major resources very far beyond the time available for this mapping exercise. The policy maker interviews in the region did not succeed in producing detailed enough data and clearly needed to be complemented by other data sources. This is why the templates were filled on the basis of desk research and by using Örebro University's extensive earlier research, and earlier monitoring reports on gender in science and academia, which research team members have been part of. Additionally, data on Iceland and Estonia were obtained from and checked with key national academic and policy experts, partly due to language reasons. Due to the extensive amount of policy, legal and initiative/action data to be covered on the region, Denmark as the Nordic country with least activities in this area (on the basis of Nordic research and earlier monitoring) was not included.

The data collection for the Western-Continental country cluster was conducted through desk research by members of the respective research team at GESIS in German, English, Dutch

and French. No external experts were involved in the collection of data for the templates in this case.

This report does not claim to present an exhaustive account of national gender and science policies or of the gender equality measures implemented in the EU and countries associated to the European research area. Rather, the sample of policies and instruments we discuss at legal, strategic and operational levels represents trends and tendencies. Moreover, it is not the aim of this report to evaluate the impact or efficiency of policy strategies or measures, but to demonstrate basic 'gender and science'- infrastructures with regard to the degree of complexity and complementarity of existing measures and thus to the degree of a country's activity in the gender and science.

Methodology

This report looks at policy issues, key mechanisms, and the contexts of science policy making, and names relevant actors that effect and affect 'gender and science' at different levels. In order to provide a broad picture of national environments, it discusses legislative, strategic and operational policy instruments. Following Bothfeld/Rouault's typology,³ we distinguish three types of steering instruments in gender equality: hierarchical steering instruments, procedural steering instruments and evaluative steering instruments.

Hierarchical steering instruments are implemented by enforcement; the organisations addressed are obliged to reach defined normative objectives. Objectives are usually precise and measurable, thus, achievements can be monitored and ideally are. If the pre-defined goals are not reached, sanctions can be put in place. Examples of hierarchical steering instruments are legal provisions such as anti-discrimination, or gender quotas. Further, the scope and effectiveness of hierarchical steering instruments can vary if other legal provisions or rules, for example, exclude some scopes of application from the actual regulation (e.g. if a quota only applies to committees or boards in the private sector, but not the public sector and vice versa). The effectiveness of this type of instrument can depend on its 'visibility'; the effectiveness can be improved, for example, if a regulation is controversially discussed or if it acts as a political symbol, e.g. quotas.

Procedural steering instruments is the implementation of gender equality offices at universities or mandatory gender equality plans in organisations. These instruments are put in place to establish new practices and routines within institutions, rather than to achieve concrete, pre-defined (and quantitative) goals. New conditions of processes and practices are defined, for example the inclusion of gender equality officers in recruitment processes. Sanctions can be put in place if the legally binding procedures are not met. Procedural steering instruments can be enforced by legal frameworks, incentives (e.g. through evaluative instruments like audits or rankings), cooperation or information/persuasion.

³ Bothfeld, Silke and Rouault, Sophie (2015): Was macht eine effiziente Gleichstellungspolitik aus? Das Instrument Frauenquote im internationalen Vergleich. In: WSI Mitteilungen 1/2015, pp. 25-34

Another example for this type is the institution's duty to report about the internal status quo of gender equality, forcing the organisations to reflect and to broach the issue of gender in organisations.

Evaluative instruments can prove effective through institutions' changed perception of gender inequalities and biases or by comparisons with other institutions. By changing the perception of gender equality issues, organisations learn latently to evaluate themselves with regards to gender equality and where they stand in comparison to other institutions. These instruments usually incorporate information or persuasion motives and can effect cultural and structural change (e.g. regarding persistent stereotypes). Evaluative instruments can be regulated by law, too, as for example, the non-legal requirement to report to an authority or coordinating agency. Hence, organisations can also be sanctioned if objectives are not met. Yet, organisations also commit to self-evaluation voluntarily. Owners of the instrument may provide organisations with new knowledge and specific trainings or offer specific instruments to support the evaluative approach. Similar to the first two types of steering instruments, evaluative instruments can have a binding character but monitoring of specific indicators can be embedded in the instrument. However, potential sanctions tend to be more effective if valued significant by the organisations.

The mere existence of policy instruments does not necessarily generate effectiveness. According to the authors, steering instruments are much more effective if thoroughly differentiated and if instruments of different steering types are combined consciously. Hierarchical steering instruments, for example, can deepen their impact and further their scope, if additional procedural and evaluative instruments are put in place.

When analysing policy instruments implemented to help the cause of gender equality in the field of science, Jalusic identifies three types of gender-concepts and visions of gender equality⁴: The first vision of equality politics (and policies) is described as the 'inclusion'-model. It can be described as a 'problem of achieving equality as "sameness"', and is linked to the strategy of equal treatment or equal opportunities. In this approach women are treated the same as men, they will be included in all societal areas, because women and men are perceived as being fundamentally the 'same' and any existing differences are evaluated as an issue of demography, of different degrees of access and opportunities. Power relations between women and men are almost never addressed within this model of (gender) equality; organisations and underlying structures are generally considered to be gender-neutral. Further, the aim of this policy approach is to include women in existing structures, thus assimilating women to the (male) standards and norms.

Secondly, the model described as 'reversal' or 'difference' model, represents 'difference affirmation' – namely the difference from the seemingly universal but in fact male norm' (Jalusic 2009: 55). This approach to equality challenges the supposed sameness assumed in the first concept and offers the politics of recognition of women's differences. In contrast to

⁴ Cf. Jalusic (2009) Stretching and bending the meanings of gender in equality policies

the inclusion-model, this political strategy recognizes gender inequality, but gender inequalities are still perceived as a ‘socially articulated, “natural” remnant’ (ibid: 59). Thus, issues of gender (in)equality tend to be synonymously articulated as *women’s* inequality or *women’s* problems and *women’s* alleged deficits (e.g. lack of resources or experience) or their alleged disadvantages (or even advantages, e.g. ‘special female qualities’).

Finally, the third approach to gender equality is described as ‘displacement’ or ‘transformation’ model. It attempts to go beyond the equality/difference dichotomy of the first two concepts, ‘towards a thorough transformation of established institutions, norms and relationships’ (ibid.: 56). Its proponents seek to deconstruct gendered organisations (and/or society itself). By questioning the gendered nature of processes and practices, the model aims at transforming the deeper structural conditions of relations between women and men, rather than simply providing access to positions or equal treatment. The displacement model is usually connected to deconstructive practises and to the gender mainstreaming theory. Moreover, it is often used in line with the concept of structural and political intersectionality and participatory strategies.

According to these types of approaches towards ‘equality’, we assign policy strategies respectively instruments in the field of ‘gender and science’ to the ‘inclusion-type’ (1), the ‘reversal-type’ (2) and the ‘transformation-type’ (3). The operationalization of these approaches was informed by the fuzzy-set ideal type analysis (Ciccia/Verloo 2012). In order to understand the issues which policies at different levels address and the key mechanisms by which they are doing so, we assessed the instruments that are in place in the EU and associated countries more closely by looking at specific indicators. For this purpose, we analysed the targeted subject of each policy instrument, on which gender each instrument focuses, whether each instrument is monitored (and if so: how?), as well as the type of practice the instrument aimed at. The analysis based on these indicators provides more detailed information about the complexity and complementarity of policy measures’ targets, understanding of ‘gender’, and overall ambition.

Each of these indicators addresses crucial characteristics of gender policies that point to the implied ‘equality’ approach. On the basis of the three theoretical models, the following values for each category have been pre-defined:

Instrument	Target	Gender	Monitoring	Timing	Type of practices ⁵	Models
Instrument 1	Individuals (1)	Women & Men	No monitoring	1-4 years		Inclusion
Instrument 2	Individuals (2)	Women	Personnel statistics or success rates	5-9 years		Reversal

⁵ These are: Career advancement-, work-life-balance- and awareness-raising-measures and strategies for structural change. For more information see section ‘Operational Orientations’ (pp.23).

Instrument 3	Organisations	None specifically	Process orientated indicators, e.g. gender budgeting	>10 years	Transformation
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The first and the second model of equality concepts ‘inclusion’ and ‘reversal’ are more likely to address individuals, as they predominantly focus upon women’s inclusion and the out-balancing of women’s disadvantages, by giving additional support, e.g. special scholarships for women only. The third model ‘transformation’ focuses upon cultural and institutional change; hence, an instrument that targets at organisations mainly.

As instruments that mainly or exclusively target individuals can be an indicator for the existence of both the ‘inclusion’- and ‘reversal’-model an instrument has to be analysed in combination with the gender it addresses in the first place, to be allocated to one of the models. The emphasis on women and men of a policy instrument is here a characteristic of the ‘inclusion’-model, as it does not differentiate between women and men, sees them as fundamentally same and often stresses the need for equal treatment of women and men or gives additional support for both genders, e.g. regarding parental leave or work-life-balance. Women (and women’s disadvantages and alleged deficits) are the main focus within the ‘reversal’-approach. Instruments exclusively or predominantly supporting women can be allocated to this model. Transformative action tends to emphasise and include a gender dimension rather than specifying which gender is the main focus. Therefore, these actions consider and address *gender dynamics* and their consequences, but do not target a specific gender group in a way instruments falling under the ‘inclusion’- or ‘reversal’-category do. For example, gender equality plans often include the obligation to consider the gender relevance of research content and curricula.

As monitoring can improve the scope and overall effectiveness of instruments, especially in order to achieve change on a deeper, structural level, monitoring indicators are relevant features. The lack of monitoring was defined as being a characteristic of the ‘inclusion’-model as e.g. equal treatment policies should result in annulling differences between genders. Monitoring devices using personnel statistics or success rates as indicators are allocated to the ‘reversal’-approach, because instruments tend to aim to improve the sex ratio in committees for example, as well as the student sex ratio. Consequently, process orientated indicators (e.g. gender budgeting) can be seen as a characteristic of the transformation model.

Lastly, instruments have been assigned to types of practices; career advancement instruments for example include mentoring, coaching, prizes, scholarships or specific programmes for the recruitment of women in the STEM field. Strategies for structural change are e.g. financial incentives, gender equality action plans, rankings, gender budgeting, diversity management, quotas or the implementation of gender mainstreaming.

Sex-disaggregated statistics, gender- and diversity-trainings or the inclusion of gender and diversity aspects in teaching can all be grouped under the practices of 'awareness raising'. 'Work-Life-Balance' describes another type of practices that include reconciliation-measures or dual career programme, for example. On the basis of these indicators, each listed instrument has been analysed and each country's tendency towards a gender equality vision has been established.

Chapter 1 - National Science Landscape

Keywords *Vertical segregation; Gender balance in decision-making and leadership; Sex and gender in research content and methods; Provision of gender & women's studies; Grade A; Status differentials and recognition*

Today, gender studies have been established in some form in nearly all EU and associated countries. Many research findings emphasise the need for gender competence as a necessary precondition to the implementation of policies in national systems (cf. Budde/Venth 2010; Wetterer 2009). Three essential elements determine gender competence in this respect: commitment, (gender) knowledge, and enabling organisational factors. The establishment of gender studies as a full degree programme can be valued as indication of gender knowledge and gender expertise and therefore as a relevant influencing parameter for a higher degree of competence in the field of gender and equality. Of course, in some countries academic disciplines may also include gender perspectives or gender research groups (especially the political science or sociology, etc.) and thus also produce gender knowledge. For example, this 'dual strategy' of gender knowledge production i.e. the existence of de-nominated gender studies programmes and gender studies as a part of mainstream disciplines is characteristic to the Nordic countries. However, for this report, mapping all existing study programmes which include gender aspects within a country goes well beyond this report -, only full study programmes with gender de-nomination have been considered for this overview.

Women are underrepresented in decision-making bodies in which recruitment, funding and, more generally, strategic decisions concerning research are taken. Evidence clearly shows that women are underrepresented in academia and that this trend increases as they move up the academic career ladder (EC 2012; EC 2013; EC 2014). Thus, a common indicator for gender inequalities in national science labour markets is the proportion of women in 'Grade A' academic positions (cf. EC 2012). We will look at both indicators in the following section.

Only five out of the 25 analysed countries have 10 or more than 10 full gender study programmes at different degree levels (BA, Master). This applies to the United Kingdom (36 programmes), Germany (26 programmes), Sweden (at least 11 programmes), Greece (10 programmes) and Norway (also 10 programmes). In seven countries, the number of gender study programmes ranges from 5 (Lithuania) to 9 (Spain). Within the majority of the 25 analysed EU and associated countries, less than five gender study programmes exist on different degree levels (BA, Master) (13 overall: Portugal, France, Hungary, Iceland, the Netherlands, the Czech Republic, Poland, Belgium, Croatia, Romania, Slovakia, Estonia and Luxembourg). In Estonia and Luxembourg, there are no full gender study programmes at all; however, Luxembourg's higher education landscape comprises only one university.

Furthermore, the quantity of gender study degree programmes has to be analysed in relation to the size of overall national science landscapes and the quantity of higher education institutions, as a greater number of universities for example, provides the

opportunity for the inclusion of diverse research foci. Here, some significant differences between countries become evident. First of all, countries with the largest higher education landscape do not necessarily show the highest numbers of gender studies programmes. Although the United Kingdom ranks high when it comes to the quantity of higher education institutions and Germany has by far the largest science landscape (but still a rather small number of full gender study programmes in light of 583 higher education institutions and significantly less programmes compared to the UK). Other countries where more than 100 research and teaching institutions exist, offer relatively few full gender study programmes (e.g. France, Portugal or Spain). In contrast, some countries with an overall small higher education sector offer relatively many programmes (e.g. Iceland Norway). Also noteworthy are countries that have a relatively well developed higher education landscape, but less than five (or five, in the case of Austria) full gender study programmes (e.g. Hungary, Romania, Poland, Czech Republic or the Netherlands).

In some countries, cooperation between several universities complement gender study programmes at single universities, especially at doctoral level. In Norway, for example, a national graduate school in gender studies with seven universities as members exist. It organises at least one doctoral course every year. On a transnational level, the Sweden-based 'InterGender'⁶ international doctoral school in gender studies is a consortium of universities from Sweden, Finland, Germany, Netherlands, and Norway.

Table 1: Overall number of higher education institutions and gender study programmes per country

Countries	Higher Education Institutions ⁷	Gender study programmes ⁸
UK	167	36
DE	583	26
SE	52	11
GR	68	10
NO	33	10
ES	171	9
FI	38	8
IE	28	7
CH	51	6
IT	96	6
AT	73	5
LT	36	5
FR	100	3
HU	67	3
IS	5	3
NL	60	3
PT	123	2

⁶ For more details see <http://www.intergender.net/>

⁷ Number in this category comprises of the stated number of public universities, private universities, universities of applied sciences, higher educational colleges, polytechnics and countries' equivalents.

⁸ Included are only full degree programmes in gender studies at Bachelor-, Masters- or and doctoral programmes.

CZ	72	2
PL	68	2
BE	55	1
HR	51	1
RO	76	1
SK	41	1
EE	23	0
LU	1	0

Source: Own data.

In addition to gender studies programmes, institutions focusing on research on gender produce gender knowledge and can add relevant perspectives on enabling organisational factors building gender competence. In all of the 25 analysed countries except Luxembourg, at least one gender study research centre exist. A greater number of research centres have been established in Germany (25), in the United Kingdom (22), Sweden (14), Norway (12) and Switzerland (10). Also, in comparison to a rather small research sector, Iceland has several gender research centres.

In addition to cross-country differences when it comes to the number of full gender study programmes, significant disparities between EU countries exist regarding the proportion of women researchers in senior positions (grade A). The latest data (EC 2012) indicates that women's representation is on average higher in the new EU Member States than in the EU-15, where there are on average 18 % of women at grade A level, compared with 20 % throughout the EU-27⁹. Their proportions ranged from 36 % in Romania to 9 % in Luxembourg. The two EU Member States where the share of women among grade A academic staff is the highest (above 30 %) are Romania and Latvia. Both are countries with low research intensity measured by R&D investment. In contrast, the proportion of women in full professorial positions was significantly below European average in Luxembourg, Cyprus, Belgium, and the Netherlands. Between 2002 and 2010, women's presence at grade A level has somewhat strengthened in all countries except Estonia (cf. EC 2012: 90).

Cross-country disparities between EU and associated countries regarding, on one side, the number of gender studies programmes and gender research centres, and, on the other side, the proportion of women in grade A positions draw a paradoxical picture: whereas the She Figures statistics show that women's representation in grade A positions is highest among Central and Eastern European countries such as Romania and Latvia and lowest among Western and to some extent Southern European countries, e.g. Belgium or the Netherlands; when it comes to the potential of gender expertise by country, indicated by the number of full gender studies programmes and gender research centres, we see a rather different picture. The numbers of gender studies programmes and gender research centres is relatively high in Western and Northern European countries (and Greece from Southern Europe as an exception), thus the data indicate the likelihood of there being a relatively high degree of gender knowledge and gender competence to consider gender aspects in research

⁹ At the time the latest She Figures report was published, Croatia was still an acceding country.

as well as in policy making. On the other hand, a high proportion of women in grade A positions alone does not necessarily mean there is a strong base for gender in research and thus good availability of gender competence. In addition to study programmes with gender de-nomination, gender research outside gender studies programmes and named gender research centres is important to take into account. It is difficult to estimate the extent of it from a comparative perspective.

Chapter 2 – Actors in Research and Gender

Keywords *Political will & commitment; Institutional gender expertise; Fragmentation of resources and efforts*

In the following section, the role of different types of actors for policy making in gender and science domains is explored based on the data gathered. More specifically, we looked at two dominating types of actors: governmental actors and funding agencies, along with their different mandates. Their operational tasks will be further discussed, so as to outline the various responsibilities of actors in the national policy making environment affecting gender and science.

According to the data available, within the national gender equality landscape, the involvement of governmental actors, on the one hand, and funding agencies, on the other hand, varies between countries. E.g. in Austria, Belgium, Switzerland, Germany, France, Ireland, the Netherlands, Portugal, and the United Kingdom, funding agencies take active roles along with governmental actors in gender and science. The ‘gender and science’ infrastructures of the Nordic countries, specifically of Finland, Iceland, Norway and Sweden are equally based on governmental actors and funding agencies alike. In Estonia, only governmental actors promote gender equality. Likewise, in Spain, Greece, Italy, and Luxembourg, governmental actors are active in gender equality without this general policy being enhanced by research funding bodies. Similarly, in Central and Eastern European countries, i.e. Croatia, Hungary, Lithuania, Poland, Romania, and Slovakia, the initiatives and strategies against gender inequalities in the research system is based on governmental actors only. The Czech Republic represents an exception to this, as both research funding and governmental actors are involved in the advancement of gender equality today. Apart from actors which can be distinctly assigned to governmental machineries and research funding, scientific institutions, science governance bodies and special interest groups take active roles in national policy environments affecting gender and science policy making.

The proportion of governmental actors in relation to other actors involved in gender equality varies significantly between countries. In some countries, interventions in the field of gender and science in the research system are solely pursued by governmental actors without the involvement of research funding agencies and in none of the countries research funding bodies outnumber governmental actors. Accordingly, in Austria, Switzerland, Germany, Finland, France, Ireland, Iceland, the Netherlands, Norway, Portugal, Sweden and the United Kingdom, the number of governmental actors actively engaged in gender and science policy

making is higher than the number of funding agencies. Furthermore, regional governmental actors exist in the Nordic region under the framework of the Nordic Council of Ministers¹⁰, coordinating (among other policy fields) the research collaboration as well as gender equality policy collaboration of the five Nordic countries and related autonomous areas. Also, there is a joint Nordic body ('Nordforsk'¹¹) within the Nordic Council of Ministers that provides funding for Nordic research cooperation as well as advice and input on Nordic research policy. Regardless of the type of cooperation between funding agencies and governmental actors, funding agencies do not operate actively in the field of gender and science without governmental actors being actively involved in the country too. This indicates that, in general terms, policy making as to advance gender equality is generally a governmental responsibility.

Against the background of the data available, different mandates regarding gender equality are allocated among governmental actors, research funding bodies, non-governmental organisations (NGOs) and other political actors in science, e.g. research councils.

Monitoring responsibilities clearly fall under the remit of governmental actors in the majority of cases and are dealt with by research funding bodies or NGOs only in very few instances. Equally, the coordination of gender equality measures, as well as the implementation of gender equality policy instruments (above institutional level) is mostly attributed to governmental actors, while funding agencies and political actors in science are only rarely charged with such mandates. Similar conclusions can be drawn in terms of the advancement of gender equality (in the labour market and public sector, science being a part of it), in which governmental actors are explicitly involved, compared to very few research funding agencies or political actors specifically in science.

Gathering information and giving advice on gender equality is a task that is shared between governmental actors, including subordinate agencies and other actors in science policy making, according to the data provided.

Actors in the gender and science policy infrastructures operate either at national, regional or local level depending on the constitution and scope of responsibilities allocated to them. Gender mainstreaming in policy making processes sometimes annuls the clear allocation of assignments, specifically in combination with the principle of subsidiarity and when monitoring and evaluation tasks lack specification in the higher education sector. The majority of actors in research and gender operate on a national level. However, in some countries¹², governmental actors and other actors in science policy making operate regionally, which reflects the regulative structure within these (federal) countries.

¹⁰ For more information see <http://www.norden.org/en/nordic-council-of-ministers>

¹¹ For more information see <http://www.nordforsk.org/en>

¹² Belgium, Switzerland, Germany, Norway, Romania and the United Kingdom

Chapter 3 – Policy Frameworks: Legal, strategic and operational orientations

Keywords *Political will & commitment; Institutional gender expertise; Legislation, regulation and compliance*

General equality policies, which apply to public institutions, show insufficient impact in academia (Bailyn 2003). A number of factors specific to the research sector have significant controls on career progression in public research institutions. These include co-option, peer review, stipends etc., which are based on the principles of academic merit and research selectivity (EC 2012; EC2014). The key problem is, however, that the mechanisms by which such elitism is protected tend to exclude talent along social and gender lines (Larivière et al. 2013).

Legal Frameworks

Keywords *Legislation, regulation and compliance; Institutional gender expertise; Work-life balance; Sexual harassment, violence, stalking, bullying; Career development and study support; Sex and gender in research content and methods*

Most EU Member States aim to advance gender equality in the research sector through general gender equality law and policy. But those laws are designed for employment in general and many policies target at the public sector or labour market in general. They are inept of regulating the research sector given its particularities in terms of, for example, the relationship within it between labour market and education, the significance of external funding to individuals operating within it, the autonomy of institutions and the role of informal mentoring and peer-to-peer relationships.

Most of the countries have provisions which outline specific concepts of gender equality, anti-discrimination, equal treatment and equal opportunities in their general equality laws and/or constitutions; whereas only in seven countries these concepts are also included in the higher education or university laws (Austria, Switzerland, Germany, Hungary, Ireland, Norway, Portugal and Sweden). The concept of gender mainstreaming is only explicitly addressed in legal terms in three countries (Lithuania, Iceland and Germany)¹³. In Austria, Spain, France, Germany, Lithuania, Luxembourg and Poland, there exists legislation that tackles specifically gender and career progression in research professions.

All Member States but Hungary, Poland and Latvia have implemented the Recast Directive in the sense that harassment related to sex and sexual harassment are two separate concepts characterised as forms of discrimination¹⁴.

¹³ In the UK, it is stated that gender issues in shaping policies, delivering services and employing staff should be considered.

¹⁴ Cf. European Network of legal experts in the fields of gender equality: Harassment related to Sex and Sexual Harassment Law in 33 European Countries, 2012 ([.ec.europa.eu/justice/gender-equality/files/your_rights/final_harassement_en.pdf](http://ec.europa.eu/justice/gender-equality/files/your_rights/final_harassement_en.pdf))

Within the gender and science domains there is a main focus in the domain “institutional practices and processes”. The issues addressed in the legal provisions are mostly limited to “gender-balance in decision-making” and “reconciliation of work and family”. While Austria, Ireland¹⁵, Finland¹⁶, France¹⁷, Spain¹⁸, Croatia, Greece, parts of Germany, Italy, Norway¹⁹ and Slovenia and Sweden²⁰ deal with the issue of gender representation in decision making committees at a legislative or governmental level, other countries leave the issue to research funding bodies or to other means: this is the case of Belgium, UK, parts of Germany, and Luxembourg. In other countries (Czech Republic, Cyprus, Denmark, Estonia, Hungary, Latvia, Lithuania, Malta, Netherlands, Portugal, Romania, Slovakia and the UK), no legal or governmental national-level measure specifically related to this target could be identified.

The data displays different levels of legal frameworks on work and family. Parental leave provisions are found in almost all countries²¹. In some states only mothers are addressed by the legislation, whereas in most of the laws the terms “family leave”²² or “parental leave” are used. Few legal provisions facilitate the interruption of fixed term contracts on grounds of leaves and grant a prolongation to the employment span, e.g. in Norway or Germany.

Academic working conditions for researchers are rarely specifically addressed by the law (Italy, Germany). Only a few countries have specific provisions on the gender and science domain ‘Career choices, pathways and development’, e.g. mandatory quotas in recruitment (e.g. Austria, Germany, Norway). In Austria for example, women have to be appointed if they are equally qualified as their male competitors. But there is only one legally binding provision on target quotas in the state higher education law of Northrhine-Westfalia since 2014, that obliges the universities (of applied sciences) to implement a quota for new appointments for professorships for three years based on the cascade model.

The procedural steering through the instalment of gender equality plans is mandatory by law in at least seven countries (Austria, partly in Germany, Spain, Finland, Iceland, Norway and Sweden). As far as institutional practices and processes are concerned, the legal institutionalization of gender equality actors is not widespread. Only four countries have binding provisions on the implementation of gender equality officers (Germany, Austria, and Iceland) or gender units (Spain). The explicit implementation of gender monitoring apart

¹⁵ Austria and Ireland set the target to 40%.

¹⁶ Finnish Gender Equality Act includes since 1995 a paragraph on 40% quota in public committees and boards.

¹⁷ In France the law requires that electoral rolls for academic institutions be made with a view on gender balance.

¹⁸ Spanish Law foresees the nomination of evaluation committees, councils and bodies and provides incentives to institutions that can demonstrate an improvement in gender balance figures.

¹⁹ Norwegian Gender Equality Act includes a paragraph on equal representation in public committees and boards.

²⁰ In Sweden equal representation is not regulated by a legal quota but is voluntarily applied principle.

²¹ Switzerland is the only country with no federal parental leave provisions. For further information: ILO Report “Maternity and paternity at work”, 13.5.2014 (<http://www.ilo.org/global/topics/equality-and-discrimination/maternity-protection/publications/maternity-paternity-at-work-2014/lang--en/index.htm>).

²² Sweden uses the term „family leave and in Germany the right for a work leave can also result from caring for close relatives.

from gender equality plans is regulated by law as obligatory in five countries (Austria, Iceland, Finland, Norway and Sweden). The concrete implementation of gender equality in terms of compliance regulations is rarely addressed by the law. In one of the German Länder, for example, committees have to be resolved immediately if the reasons for a gender imbalance have not been recorded²³.

There are hardly any legal provisions covering aspects of education and training or *knowledge making* (an exception is Finland where gender equality legislation especially mentions education and educational institutions). The incorporation of the gender dimension in research or the support of gender research is only named in legal acts of three countries (Spain, Finland and Iceland). In Germany, a few state higher education laws formulate a mandate for the universities (with support of the gender equality officer) to promote gender research²⁴. Raising awareness and sensibility is rarely addressed in legal provisions (Portugal and France). The relevant provisions stipulate the promotion of education on gender equality in higher education²⁵.

In a resuming analysis, four different clusters can be identified with regard to the scope and density of the legal framework:

- There is a group of countries which provide a *basic gender equality framework*. In these countries hardly any provisions or framework provisions exist. The main focus lies on policies and programmes and/or on the independency of the higher education institutions (e.g. Switzerland, Estonia, Hungary and Luxemburg). In higher education laws, gender equality is usually not addressed.
- A second country cluster has the same basic gender equality framework while stipulating additional provisions in *labour legislation or public sector laws* (e.g. Italy, UK).
- The third group of countries extends the legal framework to Higher Education Laws with a general *declaration of intent* regarding gender equality or equal opportunities (e.g. Portugal, Sweden)
- Finally, there is a small number of countries that have *specific provisions* on gender equality/equal treatment in their Constitution, Equality, labour and Higher Education legislation (e.g. Austria, Finland, Germany, Spain, Sweden, Norway). Except for Iceland and Finland, the lack of regulations in Higher Education laws generally implies a limited legal framework. The legal provisions on gender equality in Iceland and Finland are applicable to Higher Education institutions and cover a wide range of issues in all gender dimensions.

²³ § 11c Abs. 4 Hochschulgesetz NRW.

²⁴ E.g. Lower Saxony and Berlin.

²⁵ In Portugal, the education system must „ensure equal opportunities for both sexes, namely through practices of coeducation and professional guidance, and raising awareness among those involved in education.

Thus, most features and issues addressed in national policy making environments with regard to gender and science do not base in legal provisions - they result from long-term or medium term strategic orientations and operative policy instruments which respect the expanded autonomies of higher education institutions.

Strategic Orientations

Keywords *Gender stereotypes & and expectations; Vertical segregation; Horizontal segregation; Biased attitudes, treatment & discrimination; Political will & commitment; Institutional gender expertise; Curriculum development; Teaching and pedagogy; Gender proofing resources; Career development and study support; Gender balance in decision making and leadership; Career development and study support; (Non-) traditional career pathways; Work-life balance; Sex and gender in research content and methods; Gendering science, technology and innovation systems; Gendering knowledge transfer and communication; Provision of gender & women's studies*

Gender inequalities are driven and sustained by many complementary factors which are based in culture and occur in institutionalised sexism and the gendered organisation of labour. In the research and innovation sector, inequalities become tangible in differences in career pace and success, in the difficulties of reconciling work and family needs, in the underrepresentation of women in research decision-making and in various gender biases relating to research funding and the creation of knowledge. They take effect cumulatively in the research sector to women's particular disadvantage.

In 1998 the European Committee of Ministers recommended mainstreaming gender as the paramount strategy to achieve equality between women and men by including a 'gender equality perspective' in the '(re)organisation, improvement, development and evaluation of policy processes' (ECM 1998). Most European states confirmed mainstreaming as their central approach to realise equality between women and men since then. According to the United Nations' Beijing Platform for Action, the implementation of gender mainstreaming requires political commitment, a structure for implementation and responsibilities, gender competence and knowledge on gender and the use of implementation methods and tools (cf. EIGE 2014). Consequently, the first step (commitment) towards the implementation of gender mainstreaming has been taken by most European Member states.

The ERA Progress Report 2014 identifies 17 Member States which developed gender equality strategies in public research to various degrees (AT, BE, DE, DK, EL, ES, FI, FR, HR, IE, LT, LU, NL, PL, SE, SI, UK)²⁶. When looking at strategic orientation documents in specific policy fields, based on characteristics of steering, policies and strategies can be assigned to three main types of instruments (Cf. Bothfeld/Rouault 2015):

²⁶ Among these countries five have specific laws / acts regulating gender equality in public research: AT, BE, ES, FI, FR. Cf. ERA Progress Report 2014

- **Hierarchical steering:** direct objective, forced by regulation, direct impact on foreseen change (e.g. quota)
- **Procedural steering:** indirect objective, substantiated through addressee; incentive, cooperation or regulation; indirect-structural impact (e.g. gender equality plans, equality officers)
- **Evaluative steering:** indirect objective, self-commitment, addresses elaborate problem and strategy to address it; latent impact through cultural change and learning, (e.g. monitoring and reporting duty, audits)

National policies in the field of gender and science often pursue mixed approaches and vary between hierarchical steering, e.g. quota, procedural steering e.g. gender equality plans, and in fewer countries, evaluative steering e.g. reporting duties, voluntary audits. While the issue of gender imbalances in decision making bodies is more often addressed in strategic documents by hierarchical steering mechanisms, in form of quotas or normative objectives, the strategic responses to the issue of the underrepresentation of women in (research) leadership positions, e.g. grade A professorships often is of a procedural or evaluative nature, i.e. through incentives for the recruitment of women or just monitoring of gender ratios of staff.

Issues addressed by specific policies and strategies

At national level, two major predominant themes can be identified in current policies and strategic orientation documents: 1) equal representation of women and men in the labour market, in some policies the research and higher education labour market specifically, and 2) enhancing, instituting and operationalising of gender-related management infrastructures for the implementation of gender equalities, awareness-raising and information on gender inequalities.

The following section groups the most relevant policy issues we retrieved from analysing strategic documents in the field of gender and science according to GenPORT's thematic domains.

- **Education and Training**

Across Europe, policy strategies in the field of education and training address two principal issues, gender differences in learning, like access to education, choices of education and gender bias in the graduate population; and the limited consideration of gendered knowledge into teaching/learning content and materials.

- Inclusion of gender perspectives in learning and teaching
 - inclusion of gender in teaching curricula
 - enhancing gender research and gender in teaching
 - promotion and enhancement of gender sensitive education
 - gender inequality and human rights in the education sector

- Elimination of gender inequalities in learning and teaching
 - balancing gender representation in student education (e.g. STEM)
 - reducing boy's dropout from education and training
 - eliminating gender differences in learning outcomes

- **Career choices, pathways and development**

When looking at issues concerning the academic labour market, the predominant concern mentioned in the strategies is the underrepresentation of women in research professions, and specifically in leading positions in academia.

- Objective to reach equal representation of women and men in the labour market, including research professions specifically STEM, vertical and horizontal segregation
 - Enforcement of equal opportunities or gender equality (in general terms)
 - Making working conditions in research more attractive for women and men
 - Increasing female participation
 - Economic equality between women and men, also: economic independence
- Women in leadership positions
 - Increase of the number of women in leadership positions
 - Access of women to leadership positions

- **Agenda setting, policy and implementation**

Several objectives mentioned in overarching policies and strategic orientations point to operational steering mechanisms, e.g. the institutionalisation and implementation of gender equality steering mechanisms at subordinate level, including gender equality plans, data monitoring, gender budgeting, increasing awareness and building gender competence. The only normative objective relating directly to the underrepresentation of women in science relates to the issue of gender imbalances in research decision making:

- Improving and enhancing
 - Enhancement of institutionalisation and implementation of instruments (effectiveness issue)
 - Strengthening gender mainstreaming in policy development, including in STI
- Institutionalisation and implementation
 - Instituting of a gender equality policy in the organisation (RFO)
 - Including gender in contractual agreements between HEI and GOV
 - Implementation of equal opportunity measures
 - Institutionalising and supporting the implementation of gender action plans in universities
 - Making available sex-disaggregated monitoring data (HR and budget)

- Boosting awareness and capacity
 - o Development of guidelines, e.g. on the collection of monitoring data
 - o Increasing awareness on gender (issues, differences, inequalities)
 - o Building gender competence in the public and private sector
- Gender balance in research decision making
 - o Gender balance in selection and evaluation committees, expert councils

- **Knowledge production, application and communication**

National and regional policies outline the need to support gender studies, mainstreaming gender in other research domains and are much less concerned with the gendered content and inequalities in communication materials, specifically in ICT.

- Supporting gender studies
 - o Support to gender studies
 - o enhancing gender research and gender in teaching
 - o support to gender research
- Strengthening research with gender perspectives
 - o integration of gender dimension in research
 - o examination of the gender dimension in science and research (content)
- Gender in science communication materials, digital applications
 - o strengthening gender studies and research with gender perspective; gender in communication
 - o reducing gender-bias in digital applications (content and users)

The country profiles indicate at least two periods of time in the last years, in which policy reforms across the EU took place: end of 1990s after the United Nations' fourth world conference on Women 1995 and the approval of the Beijing Declaration and Platform for Action²⁷ and more recently around the year 2012 through the inclusion of gender equality objectives in the European Unions' policy shaping the European Research Area²⁸. In addition, activities in the field (not necessarily addressing research in particular), is notable in some EU member states in preparation to the states accessions to EU, resulting in less activity afterwards and in many cases to full resolution of structures, strategies and monitoring at the time of the financial crisis post 2008. On the other hand, Finland and Sweden had been exercising gender equality policies in general, and in science and research, long-term before they joined the EU in 1995.

Monitoring and regular assessments of efficacy and effectiveness of policies are crucial prerequisites for successful policy implementation. Sex-disaggregated statistics are, overall,

²⁷ <http://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf>

²⁸ COM(2012) 392 final, http://ec.europa.eu/euraxess/pdf/research_policies/era-communication_en.pdf

show little harmonisation across member states. European-wide collections and comparisons of statistics is funded and implemented regularly but on ad-hoc basis by the European Union, i.e. through the “She Figures” and other ERA-related reports. Only few sex-disaggregated statistics of the higher education sector are available through Eurostat (mostly personnel statistics, excluding scholarship holders and non-uniform with factoring PhD-students). A few member states, such as Sweden, have legal regulations stipulating that all person statistics should be sex-disaggregated. Only a few Member States address the issue of monitoring gender equality indicators specifically in their research and innovation legislation and policies.²⁹ In the Nordic region, NIFU, Nordic Institute for Studies on Innovation, Research and Education includes gender in its statistical monitoring of the research and innovation sector³⁰. Much less common than personnel statistics is monitoring of expenses, i.e. gender budgeting concerning salaries, success rates and funding amounts differentiated by sex of applicants, budget spent on work-life balance. However, some gender equality policy instruments which follow an “evaluative” steering approach unite monitoring and procedural steering mechanisms, e.g. Norway’s gender equality award (that was discontinued in 2014), Athena SWAN Charter and others. In those cases, monitoring indicators and the issues policy instruments address show a high degree of congruency.

Operational Orientations

Keywords *Institutional practices and processes; Equality and diversity management; Work-life balance; Assessment in admission, recruitment, career advancement, employment; Institutional gender expertise; Resistance and denial*

When mapping and analysing gender equality policies in European countries, instruments provide valuable information about national implementation approaches. As discussed in the first section of this report, implementation approaches can be categorised based on their concept of ‘gender’ and ‘gender equality’ respectively. Jalusic (2009) suggested three types of gender equality policy approaches: first, the ‘inclusion’-approach that is linked to the strategy of equal treatment, second, the ‘reversal’-approach within which gender equality issues are often simultaneously articulated as women’s problems or women’s inequalities and which aims to out-balance women’s disadvantages, and lastly, the ‘transformation’-approach that seeks to achieve institutional or cultural change, especially regarding the gendered structure of organisations. In line with these implementation approaches, 91 policy instruments in the field of gender and science were collected and analysed. The analysis based on the following indicators, derived from Jalusic’s argued three gender equality types: first of all, it was assessed whether a measure addresses individuals or organisations (or both). Secondly, the approach to gender the instruments focus upon was analysed. An instrument’s monitoring mechanism is the third indicator (e.g. are annual

²⁹ Cf. for Austria, <http://wissenschaft.bmwf.at/bmwf/wissenschaft-hochschulen/gender-und-diversitaet/programme-und-initiativen/gender-monitoring/>

³⁰ <http://www.nifu.no/en/about-nifu/>, <http://www.nifu.no/files/2013/01/Nordic-Research-2012.pdf>

reports, success rates or personnel statistics required?), and the instrument's timing (i.e. lifespan) the fourth. Lastly, instruments were allocated to the following types of practice:

1. **Career advancement** (this includes for example scholarships, fellowships, special grants, awards, mentoring programmes, coaching and career trainings, networks or bridging grants.)
2. **Strategies for structural change** (this includes input-related incentives for organisations, the inclusion of a gender dimension in research content, gender and diversity action plans, gender mainstreaming implementation mechanisms, diversity management, quotas, gender budgeting or agreements and charters with fixed targets for organisations.)
3. **Work-Life-Balance** (this includes instruments aiming to improve the reconciliation of family and work life, e.g. special parental or maternity leave regulations, dual career programmes or flexible working hours, etc.)
4. **Awareness raising** (i.e. gender-segregated statistics, gender equality monitoring, gender and diversity trainings, implementation of queer-, masculinity-, gender- or diversity-aspects in education and research, measures aiming to reduce stereotypes, gender portals and information services.)

In addition to these four types of practice, several of the analysed instruments combine these types. On the basis of these indicators, instruments were assigned to the three implementation approaches above ('inclusion', 'reversal', 'transformation'). Instruments of 21³¹ EU and associated countries are included; for four countries no data about instruments were obtained (Slovakia, Romania, Lithuania and Iceland). The 91 analysed instruments of 21 countries can be seen as a representative but not exhaustive collection, which serves as the basis for the description of national tendencies regarding the countries' implementation approach.

With regard to the target of the instruments, 15 out of the 21 countries have implemented instruments that target organisations and provide incentives for institutional change to promote gender equality rather than addressing individuals (Austria, Belgium, Switzerland, Germany, Estonia, Finland, France, Greece, Croatia, Ireland, the Netherlands, Norway, Portugal, Sweden and the United Kingdom). 44 of the 91 analysed instruments exclusively target organisations (i.e. about half of all instruments). The majority of countries have measures in place that target individuals (17 out of 21, these are: Austria, Switzerland, Czech Republic, Germany, Spain, France, Greece, Croatia, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal and the United Kingdom) and this applies to 35 of the 91 instruments. Based on our data, in only nine countries instruments that address

³¹ These are Austria, Belgium, Switzerland, the Czech Republic, Germany, Estonia, Spain, Finland, France, Greece, Croatia, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Sweden and the United Kingdom.

individuals *as well as* organisations are in place (in Austria, Belgium, Switzerland, Germany, Finland, Ireland, the Netherlands, Norway and Sweden). This is the smallest group of instruments and only comprises 12 of the 91 measures.

Regarding the types of practice of the analysed instruments, most of the instruments are either career advancement measures or strategies to promote gender equality in universities and research institutions. Not many measures exclusively focusing on work-life-balance or awareness-raising exist within the 91 instruments. In addition to the four 'exclusive' types of practice, instruments combining these types exist. As the largest group of practice-types, 40 of 91 instruments can be categorised as targeting at structural change. These exist in 15 of the 21 countries (AT, BE, CH, DE, EE, FI, FR, GR, HR, IE, NL, NO, PT, SE and UK). Some instruments address women or women and men; however, most of them rather concentrate on the inclusion of a gender dimension, gender dynamics or on gender equality in general than emphasising gender differences. About a third of all instrument (32 out of 91) are 'career advancement'-measures and are in place in 15 out of 21 countries (in AT, BE, CH, CZ, DE, ES, GR, HR, HU, IE, IT, LU, NL, PL, SE and UK). Significantly, almost all 32 'advancement'-instruments address women only and - in most cases – their career progression, retention or recruitment. One measure in Luxembourg and two measures in the United Kingdom target women as well as men. Not many instruments have as their main objective awareness-raising, only four instruments fall under this category; one in Estonia, one in Sweden and two in the United Kingdom³². Similarly, only four of the 91 analysed instruments are work-life-balance-orientated measures. These have been implemented in Switzerland, France, Hungary and Norway. However, it should be underlined that in some countries, such as Finland and Sweden, general legally guaranteed work-life balance provisions are extensive and also concern those employed in the research sector.

Some of the instruments include more than one practice: three instruments include career advancement practices as well as practices aiming to improve the work-life-balance for researchers (in the Czech Republic, France and Poland). In France (two instruments) and in Norway (one instrument), measures have been implemented which combine a practice for awareness-raising with a strategy for structural change. Further, three of 91 instruments include advancement practices *and* strategies for structural change at the same time (in Austria, Germany and Ireland). Lastly, in Ireland, one measure targets women's career advancement and additionally aims to raise awareness for issues regarding women in STEM (WITS – Women in Technology and Science³³).

With regard to the implementation approaches of instruments, four groups have been identified. Within the first group, instruments follow a transformative approach and within the second, instruments either aim at 'inclusion' or 'reversal'. Instruments allocated to a

³² However, awareness-raising often is a side-effect of implementing instruments and in some countries specific actors (e.g. information centres) are in charge of awareness-raising initiatives to specific target populations.

³³ Cf. <http://witsireland.com/cms/>.

third group combine transformative action with aspects following the 'inclusion'- or 'reversal'-approach. Lastly, there are also instruments including aspects which follow a 'transformation'-, 'inclusion'- and 'reversal'-approach in equal terms and thus cannot be allocated to one of the approaches primarily. Most of the instruments show indications of the 'inclusion'- or 'reversal'-approach, closely followed by transformative measures. A smaller number of instruments combine transformative measures with aspects aiming at 'inclusion' or 'reversal' and only a few measures contain aspects of all three implementation approaches.

With 37 of the 91 measures, instruments following the 'inclusion'- or 'reversal'-approach form the largest group. The vast majority of these measures address individuals; yet, three instruments target individuals *and* organisations at the same time (one each in Austria, Belgium and Switzerland). Further, almost all measures but six are directed to women. The six instruments aim at women and men (e.g. through support grants for researchers with (child) caring duties). All in all, these 37 measures are mostly measures to advance and few are work-life-balance practices, however, some combine both themes. One instrument also comprises strategies for structural change together with career advancement action and another can be described as a device for career advancement that also seeks to raise awareness. In 17 of 21 countries these instruments, following the 'inclusion'- or 'reversal'-approach, exist (AT, BE, CH, CZ, DE, ES, FR, GR, HR, HU, IE, IT, LU, NL, NO, PL and UK).

As the second largest group, 33 of the 91 analysed instruments qualify as transformative measures; they provide incentives for organisations to promote gender equality and seek to implement the consideration of a gender dimension into institutional practices and processes. Predominantly, the measures in this first group are practices for structural change, however, one of the instruments (the French Charter for Equality between Women and Men in Higher Education and Research Institutions³⁴) includes aspects of a strategy for structural change as well as actions for awareness-raising, and three of the measures are exclusively awareness-raising-devices (the expert reports on gender and innovation by the Swedish innovation agency VINNOVA³⁵, and in the United Kingdom the RAEng/Royal Society/BIS programme³⁶ that focuses on increasing diversity in the scientific workforce as well as the Think, Act, Report-project³⁷ that seeks to encourage organisations in the public and private sector to share how they promote gender equality). Out of the 21 represented countries, 15 countries established and implemented one or more transformative instruments (AT, BE, CH, DE, EE, FI, FR, GR, HR, IE, NL, NO, PT, SE and UK).

³⁴ Cf. [http://cache.media.education.gouv.fr/file/Espace Europeen de la Recherche - E.E.R./12/7/charte_Egalite-dossier_274127.pdf](http://cache.media.education.gouv.fr/file/Espace_Europeen_de_la_Recherche_-_E.E.R./12/7/charte_Egalite-dossier_274127.pdf).

³⁵ Cf. <http://www.vinnova.se/en/Our-activities/Innovativeness-of-specific-target-groups/Individuals-and-Innovation-Milieus/Needs-Driven-Gender-Research-for-Innovation/Publications/>.

³⁶ Cf. <https://royalsociety.org/news/2012/more-diverse-scientific-workforce/>.

³⁷ Cf. <https://www.gov.uk/government/policies/creating-a-fairer-and-more-equal-society/supporting-pages/think-act-report>

The third group of instruments combines transformative action with aspects following the 'inclusion'- or 'reversal'-approach. 16 of 91 instruments fall under this category and these have been implemented in 9 of the 21 countries (in Austria, Germany, Estonia, France, Ireland, Netherlands, Norway, Portugal and Sweden). A significant difference to the other groups is the variation of types of practices in combination with a mostly homogenous target group. Here, the vast majority of measures address organisations, with the exception of one instrument that targets individuals *and* organisations and one instrument exclusively focusing upon individuals. However, there is no overarching trend concerning the types of practice; these are career advancement instruments as well as strategies for structural change, work-life-balance or awareness-raising-devices, and measures comprising different practices. Lastly, there is a small group of measures that contain different aspects of all three identified implementation approaches and thus do not show a stronger tendency towards one of the models. This applies to five of the 91 policy instruments. Most of these target individuals as well as organisations, but primarily focus upon women and their alleged disadvantages. Two instruments are strategies for structural change and measures to advance at the same time, two instruments are devices for career advancement and one instrument is a strategy for structural change, exclusively.

The analysis of 91 instruments in 21 EU and associated countries indicates a significant variation between countries in the complexity and complementarity of implementation approaches in gender and science domains. Although instruments focusing upon women's career recruitment, retention and progression are still very prominent among most countries (16), strategies for structural change are very common, too. Interestingly, in some countries very different measures with different approaches exist simultaneously, which include different targets, different approaches on gender and different types of practices. In these cases, a complex approach becomes visible and career advancement measures, for example, are complemented – to different extents - by institutional and cultural changes and vice versa. This applies to Austria, Belgium, Finland, France, Germany, Ireland, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom. It also applies to a much lesser extent, with a main focus on general gender equality, to Croatia, Portugal, Estonia and Greece. The former and the latter – but mainly in the domain of general gender equality - implemented career advancement measures as well as strategies for structural change (and in some cases awareness-raising- and work-life-balance-devices, additionally) and have instruments that target organisations as well as individuals. In contrast, in some analysed countries only advancement-measures or work-life-balance-measures exist that target individuals (CZ, ES, HU, IT, LU, PL). The complexity and complementary approach of the first group that hints at a greater activity in the gender and science domain and the latter group's focus on women's advancement is in line with other findings and categorisations into active, relatively inactive and inactive countries (cf. for example EC 2014; EC 2009; EC 2008).

In 2007, the European Commission changed its gender equality approach from supporting women directly to 'fixing the institutions' (cf. EC 2014: 12). Although the analysis of the 91

instruments shows that the ‘fixing the institutions’-approach has been implemented in many countries (15), the overwhelming amount of career advancement measures that exclusively address women suggests that direct support to women scientists still persists. However, the numerous transformative instruments found which combine strategies for structural change with career advancement actions for example, but target and provide incentives for *organisations*, reveal, that (women’s) inclusion or affirmative actions can certainly be part of a transformation approach, implemented at institutional and cultural change.

Chapter 4 – Relation between local and national level

Keywords *Agenda setting, policy and implementation; Political will & commitment; Fragmentation of resources and efforts; Institutional gender expertise; Gendering science, technology and innovation systems; Gender balance in decision making and leadership*

National academic systems are made of complex and diverse administrative sub-systems, depending on the legal constitution of their elements, and gender and research policy-making usually is a multi-actor responsibility and takes place at different levels simultaneously (i.e. local, regional and national) (cf. EC 2014).

The EU does not require Member States to operate with specific policy instruments which would e.g. encourage sustainable implementation of local gender equality policies. In principle, the actual design of policies and the implementation of these policies lay in the hands of each Member State or science institution respectively (cf. EC 2014). Thus, variations inside national implementation procedures enforce diversity in the distribution of responsibilities for gender and science policy-making; i.e. countries differ when it comes to the question who (at which level) designs what policy - and the ways it is implemented may differ according to the type of science institution. The following section summaries two examples of variations found in the case of the designing and implementation of gender equality plans.

In the first example, gender equality plans at universities and in research funding bodies are required by law and implemented ‘top-down’ at national state level. In Spain, the law on universities of 2007 (LOMLOU 4/2007) requires all higher education institutions to produce gender equality plans and periodic reports about the implementation of these plans accordingly. Further, the *Science, Technology and Innovation* Law of 2011 obligate public research bodies to adopt gender equality plans which will be subject to annual monitoring. The plans should include incentive measures for those centres to improve their gender indicators corresponding to annual monitoring. Formal objectives of these institutional gender equality plans are defined within the Spanish Strategy of Science, Technology and Innovation (2013-2020), which is the overall framework: i.e. strengthening gender studies and research through gendered perspectives, diminishing the underrepresentation of women in the science labour market, making sex-disaggregated statistics available and developing gender sensitive tools for dissemination/communication. The Spanish Ministry of

Economics and Competitiveness (MINECO) and its Women and Science Unit formally controls the implementation of equality plans through periodic reports.

In contrast, the gender equality plan of the Swedish Research Council is an example of a 'bottom-up' implementation of policy instruments.³⁸ It is based on the Ordinance on the Research Councils hiring researchers (1986:364) that requires gender balance of grant applicants and on the Swedish Discrimination Act (2008:267), and the Swedish Research Council and its board are responsible for initiating and implementing the plan. The gender equality plan includes the following objectives: an equal gender distribution in the councils' evaluation panels, ensuring that the percentages of female and male applicants for grants from the Swedish Research Council correspond to the percentages of women and men among the potential research grant applicants, ensuring that women and men have the same success rates and receive the same average size of grants, taking into account the nature of the research and the type of grant. The Research Council provides monitoring reports with statistics on success rates by gender and reports to the government.

All in all, the uniqueness of national infrastructures in the science domain, the institutional autonomies, the conversation of subsidiarity principles and the diversity and variation of administrative systems require that an analysis of policy-making practices and processes fully considers the local national environment and respects the context of the policy instruments' implementation.

Chapter 5 – Conclusion

The data gathered for our analysis of policy environments in the field of 'gender and science' show broad varieties of types of actors involved in policy making; legal and strategic instruments for steering policy, as well as different approaches to gender and equality. Gender mainstreaming is the leading strategy adopted by EU institutions and EU Member States. Responsibilities for mainstreaming gender are dispersed among different institutions and actors. Building national infrastructures for mainstreaming and gender equality still belongs to strategic policy objectives in many countries.

In terms of the involvement of research funding and governmental actors, funding agencies do not operate actively in the field of gender and science without the involvement of governmental actors being involved in the field too. In some countries, however, governmental actors operate without funding agencies at all. Generally, our findings indicate that governmental actors rather hold mandates in monitoring and coordinating equality programmes and measures, and operate nationally, regionally or locally, depending on the individual political structures of the respective country.

³⁸ Cf. <http://www.vr.se/download/18.70a7940b146b8f937949f953/1403793852159/Strategy+Gender+Equality+SRC+2014.pdf>

Important EU directives on equal treatment and equal pay have been transposed into national legislation in all EU member states regarding employment in the public sector. Major gaps can be identified between general commitments to or adoption of policy objectives and their implementation in the public research and education sector. Most advanced policy strategies, in terms of complexity and complementary of approaches can be found in some Western and the Nordic countries. Gender equality legislations differ between European member states. For instance, there are differences between the countries' higher education legislation, as some countries do not have any gender specific regulations, whereas others put forward a wide range of provisions for the higher education and research sector on gender equality.

The number of women in grade A positions is highest in Central and Eastern European countries and rather low in Western and Southern European countries. The numbers of gender study programmes and gender research centres, which indicate the relative potential for obtaining gender knowledge and gender competence, are rather low in Central and Eastern European countries and relatively high in Western and Nordic countries (and Greece as an exception). This indicates that good representative equality in terms of equal numbers of women and men in senior academic positions do not necessarily imply a high potential for gender knowledge in research.

The analysis of instruments for the implementation of gender equality measures within the countries shows that advancement measures address women predominantly, but may also aim at structural change, i.e. following the 'fixing the institutions'-approach. National policy infrastructures and respective administrative systems vary between countries to a high degree and thus, notions of 'gender' and 'equality'-related objectives need to be analysed in light of the context of specific policy instruments.

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Annex 1

Template for data collection WP 4.1

Instructions

The questions in this questionnaire help us with the analysis of policy making environments. The overall purpose of this task is to understand the key gender and science infrastructures, the placement of actors within the national science policy context, the issues which policies at different levels are addressing, and the key mechanisms by which they are doing so.

The answers to the questions 1-15 should be based on a desk research. Relevant resources for the desk research are listed below:

STI policy landscape:

- ERA Progress Report 2013 country reports:

http://ec.europa.eu/research/era/eraprogress_en.htm

- Innovation Union Scoreboard 2013 Country Profiles:

http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013_en.pdf

- She Figures 2012: http://ec.europa.eu/research/science-society/document_library/pdf_06/she-figures-2012_en.pdf

- Researchers Report 2013 Country Profiles:

<http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies>

- Stocktaking 10 years of Women in Science Reports:

http://ec.europa.eu/research/science-society/document_library/pdf_06/stocktaking-10-years-of-women-in-science-book_en.pdf

- UNESCO Institute for Statistics: R&D data Country Profiles:

http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=198&IF_Language=eng

- Meta-Analysis reports on gender in science:

http://ec.europa.eu/research/science-society/document_library/pdf_06/meta-analysis-of-gender-and-science-research-synthesis-report.pdf

- ERAWATCH - Platform on Research and Innovation policies and systems (country reports): <http://erawatch.jrc.ec.europa.eu/>

- MORE2-Study 2013, Mobility Patterns and Career Paths of Researchers (country reports): <http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies>

-The Gender Challenge in Research Funding - assessing the European national scenes (country reports, data available until about -2007 for 29 countries):

<http://ec.europa.eu/research/science-society/index.cfm?fuseaction=public.topic&id=1406> (page bottom)

Education Policy Landscape:

Eurydice / EURYPEDIA- The European Encyclopedia on National Education Systems:

http://eacea.ec.europa.eu/education/eurydice./eurypedia_de.php

Scientix: <http://www.scientix.eu/web/guest/home>

Labour Market Policy Landscape:

- Eurofound: <http://www.eurofound.europa.eu/surveys/index.htm>

- EIRO: http://www.eurofound.europa.eu/eiro/country_index.htm

- Equality Pays Off (Country Profiles): http://ec.europa.eu/justice/gender-equality/equality-pays-off/spotlight-on-your-country/index_en.htm

Gender Equality Policy Landscape:

- EIGE (Gender Equality Index- Country profiles) <http://eige.europa.eu/content/document/gender-equality-index-country-profiles>

Besides the Erawatch-data, we would especially recommend consulting two key resources:

The Researchers' Report 2013 Country Profiles (<http://ec.europa.eu/euraxess/index.cfm/services/researchPolicies>) and the

European Research Area Facts and Figures 2013 (http://ec.europa.eu/research/era/eraprogress_en.htm) for the respective countries. However, these recommendations serve as a guideline. We are aware that there might be more fitting resources in the respective countries, so please feel free to consult any other resources that might seem appropriate to you and insert corresponding URLs where appropriate.

When you fill out the questionnaire, please refer to the resources that you are using. This will provide us with a list of resources that can be included in our GenPORT resource list.

This questionnaire is designed to be filled in per country. If this is not feasible as there are too many countries (e.g. for the Central and Eastern European Cluster), you may pick the countries you fill in the form for according to your interviews done with policy stakeholder and informants.

Our questionnaire is based partly on a model of the national research structure available on Erawatch (http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/). This model is available for most of the European countries. In case that the model is not available for one or several of the countries within your country

cluster, Erawatch provides a written explanation of the relevant actors. We kindly ask you to then use this written explanation and comment on this one.

1. Country:

2. Please indicate the number of institutions

	Number
Non-university Research institutions	
Public universities	
Private universities	
Universities of applied sciences, (Private) colleges of teacher education	
Number of gender studies centers	
Number of gender study programmes	
Number of RFO	

3. Does the country have a strategy on gender in science?

a. If yes, what are the objectives of this strategy? Do these objectives refer to the domains of

- Science labour market?
- Education?
- Research?
- Innovation?

b. If yes, what is the timeframe to reach the objectives?

c. Does the country have a national agreement on gender mainstreaming? Please elaborate.

4. Please take a look at the structure of the research system of the respective country:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/

a. Please indicate those actors that are focusing on gender equality:

b. If necessary please add a description of other actors/units/committees focusing on gender and equality:

5. Please specify the role/mandate of each of the actors

For example: a gives advice to b, b responsible for monitoring, control of c, c initiates d, d reports to a etc.

6. Please specify the indicators used in the reports mentioned under question 5.

7. Please indicate the legal basis/acts relevant to the field of gender in science. Please note that relevant laws and acts might stem from different domains, such as science labour market, education, research and innovation. Please list only those laws/acts intersecting with gender in science and state which of the following categories they belong to:

- International Treaties
- EU-Law (treaties, directives)
- Constitutional law
- Legislation/Laws (state and federal)
- Decrees, regulations etc. (legislative instruments of lower status than laws)
- Case law/legal precedents

8. Are Gender Equality plans based on legislative provisions? Please comment briefly.

9. Are offices for gender equality based on legal provisions? Please comment briefly.

1. Gender Equality in research: please list the key instruments

Instrument name	URL	Brief description of the instrument	Is the instrument targeting individuals or organisation	If possible please describe briefly whether and how the instrument is monitored	Which law/act is this instrument based on?

The table above was provided for questions 10-15.

2. Gender in research: please list the key instruments

3. Gender equality in student education: please list the key instruments

4. Gender in student education: please list the key instruments

5. Gender equality in innovation: please list the key instruments

6. Gender equality in labour market: please list the key instruments

Annex 2

Austria

1. Gender in Science Knowledge 'Input'

In Austria, there are 22 public and 14 private universities, as well as 38 universities of applied sciences and colleges. In contrast, 3 universities offer gender study programmes and there are in total 5 gender study programmes in Austria (3 in Graz, 1 in Innsbruck and 1 in Wien). Outside the university sector, research is being conducted at 17 public research organisations, and there are 8 gender studies centres. Austria has 3 major research funding bodies (the Federal Ministry of Science and Research, the Austrian Science Fund and the Austrian Promotion Agency).

The proportion of women in the highest research positions in Austria (grade A positions as defined by She Figures 2012: 87) increased from 9.5 % in 2002 to 17.4 % in 2010 (with an EU-27 average of 15.3 % in 2002 and 19.8 % in 2010) (She Figures 2012: 91). The Glass Ceiling Index (for a definition see: She Figures 2012: 95) for Austria was 2.39 in 2004 and decreased to 1.9 in 2009, which is above EU-27 average (1.9 in 2004, 1.8 in 2010) (She Figures 2012: 96).

2. Actors in Gender Equality

The Federal Ministry of Science, Research and Economy (BMWFW), the Austrian Ministry for Transport, Innovation and Technology (BMVIT), the Austrian Science Fund (FWF) and the universities are the main actors promoting gender equality in science in Austria.

The BMWFW as well as the BMVIT are both responsible for research and technology at federal level, while the FWF has been established under Austrian federal law and is Austria's central funding organization for basic research, which is mainly performed at universities in various academic fields in Austria.³⁹

The FWF is a government agency and is also responsible for the management of programmes on behalf of Austrian ministries, who provide funds for the respective programmes on their part.⁴⁰ As Austria's central funding organization for basic research, the FWF is especially committed to gender mainstreaming as a core value of its work. Gender mainstreaming is set to be implemented through specific programmes in all fields of research funded by the FWF. The FWF's Staff Unit for Gender Issues (Stabsstelle Gender-Thematik) was set up in 2005 and aims at increasing the visibility of women in science, as well as increasing the number of women as decision-makers, and improving career options for women in science.

³⁹ http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf

⁴⁰ http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/at/organisation/organisation_mig_0011

The BMWFW offers a programme for the career advancement of women in science and comprises the service-oriented department for Gender and Diversity Management (Stabsstelle Geschlechterspezifisches (bzw. Gender) - und Diversitätsmanagement), which is responsible for monitoring and coordinating the implementation of gender equality and diversity measures.⁴¹ These measures include the display of good practices and role models related to gender equality, the monitoring of legal provisions on gender equality, as the basis of strategic gender equality processes, and the implementation of instruments for gender-equality. The main goal of the department is to promote gender equality and diversity at universities and to function as a contact point for universities, technical universities and research institutions.⁴²

BMVIT has set up the FEMtech initiative, supporting women in research and technology. The focus of the programme lies on gender equality instruments. FEMtech conducts research on the role of women in science, technology and innovation, and runs activities in awareness raising, sensitisation and visibility of women in science and technology.⁴³

All Austrian universities are required by university law to establish a working group for gender equality (Arbeitskreis für Gleichbehandlungsfragen) and to put forward gender equality among university staff and students.

3. Framework: legal, strategic and operational

Comment

Austria has set up specific laws and actions to implement gender equality in research. Since 2009, objectives to attain gender balance in leadership positions and decision-making bodies in public research organisations and higher education institutions were gradually put in place by the University Act.⁴⁴ Austria is one of the few countries that have set up a fix female quota (40 %) for the participation of under-represented sex in decision-making bodies of Research Performing Organisations.

Gender specific measures are included in the performance agreements with universities (for example the 40 % mandatory representation of women).⁴⁵ Universities are also obliged to implement an action plan for the career advancement of women.⁴⁶

List of relevant legal provisions

Federal Constitutional Act (BV-G): gender equality;

Care Allowance Reform Act 2012 and the Care Allowance Act: maternity leave is not a discriminating factor; pregnancy automatically freezes temporary contracts; women have the right to return to an

⁴¹ <http://www.bmwfw.gv.at/Presse/Documents/GE%201.3.2014-%20Verlautbarung%20Internet%20pdf.pdf>

⁴² <http://wissenschaft.bmwfw.gv.at/bmwfw/wissenschaft-hochschulen/gender-und-diversitaet/>

⁴³ http://www.bmvit.gv.at/innovation/humanpotenzial/talente_nuetzen/index.html

⁴⁴ ERA facts and figures (2014), p. 14

⁴⁵ Ibid.

⁴⁶ <http://wissenschaft.bmwfw.gv.at/bmwfw/wissenschaft-hochschulen/gender-und-diversitaet/gleichbehandlung-an-oesterreichischen-hochschulen-und-forschungseinrichtungen/gleichbehandlung-und-frauenfoerderung-an-den-universitaeten/>

equal position to the one held before their maternity leave; women are entitled to have a part-time position when they end their maternity leave.

Federal Budget Act (BHG): gender budgeting

Federal Equal Treatment Act & equivalent on regional level: gender equality

Federal finance law 2013: a balanced representation of women and men in academic leadership positions and boards as well as in young scientist positions; better usage of skilled labour in Austria especially through raising the share of women employed in science, technology and innovation

University Act:

- Gender equality is a leading principle
- 40% of the staff of universities and members of university boards must be women;
- Implementation of gender monitoring with respect to recruitment as well as in governance entities;
- targeted recruitment
- establishing an organisational unit responsible for coordinating activities relating to gender equality, advancement of women & gender research
- establishing the so-called 'Affirmative Action Plans'/Gender Equality Plan

Regulation on formula based budgets for Austrian Universities (FBV): indicators for social objectives related to promotion of women: Indicator 8 measures the share of women in grade A (full professors) positions and indicator 9 measures the number of women PhD graduates weighted by discipline of PhD study.

On the basis of the **Regulation on Intellectual Capital** for Austrian universities (2010), the Regulation on formula-based budgets of universities and the **Austrian University Act** (2009), universities monitor and report to the government annually the sex-ratio of academic staff and students, including women Grade A and the number of female PhD graduates by discipline; monitoring data with respect to recruitment and university governance bodies; gender pay gap data, budget spent on work-life balance measures.

Policy Instruments

Austria is committed to gender mainstreaming since the year 2000.⁴⁷ During the latest renewal of policies and legal provisions in Austria (post 2008) gender has been forcefully mainstreamed into research legislation, policy and funding. Gender budgeting is obligatory in the Austrian public sector since 2009 and this approach has been reinforced in 2012 by the introduction of 'outcome-oriented' gender budgeting objectives.

Besides, the **National Action Plan for Equality of Women and Men in the Labour Market** (2010) targets at reducing horizontal and vertical segregation in education and choice of careers, reducing the underrepresentation of women in leadership positions, the general gender pay gap as well as inequality in career chances for women with care-responsibilities.

⁴⁷ EIGE (2014) Effectiveness of institutional mechanisms for the advancement of gender equality

Specific strategic policies for researchers, i.e. the **National Strategy for Research, Technology and Development of the Austrian Federal Government** (2011) include concrete objectives as to reconciliation of work and family-life, gender balance in research professions, the implementation of gender budgeting in all research funding and provision for support to young women scientists. However, the **National action Plan for Researchers** of 2009,⁴⁸ which is the national response to the European Communication 'Better Careers and More Mobility: A European Partnership for Researchers' refers to the **Government's (Work) Programme** objectives to be added to one of four axis of action to promote attractive employment and working conditions. The latter defines as objectives the 'improvement of opportunities for women' in research decision making positions and to use gender budgeting tools in research funding for improving the reconciliation of family and work life. specific objectives relating to gender equality, although the EC communication calls on member states to e.g. 'achieve adequate gender representation in selection and funding bodies' and 'enable both men and women to pursue a scientific careers with an adequate work-life balance'.⁴⁹

The implementation of the **National Action Plan for Equality of Women and Men in the Labour Market**⁵⁰ (2009) is monitored by use of various outcome-oriented indicators, e.g. income disaggregated by sex, sex-ratio of income groups in companies and introduced monitoring with respect to recruitment, and targeted recruitment. The government facilitates public access to gender budgeting data and staff statistics, including human resources in public research institutions and universities through uni-data warehouse⁵¹.

4. Implementation Approach

As a support scheme, the Elise Richter Programme⁵² addresses highly qualified women senior post-docs and scholars and aims to provide scientists with the necessary qualifications to apply for professorial positions in Austria or abroad ("Habilitation" or equal qualification). The programme is carried out by the Austrian Science Fund (FWF). The Austrian Science Fund also implemented an obligatory analysis of gender relevance in research programmes.⁵³ As a softer measure, the FEMtech⁵⁴ internships for women students in STEM research institutions seeks to support women's career progression in fields where they are traditionally under-represented. Also in the fields of natural sciences and technology, the eight Laura Bassi Centres of Expertise⁵⁵ are close to industry and headed by women experts. It is their tasks to do innovative research and the aim of this programme is to make the research achievements of highly qualified women visible. Women scientists are encouraged to apply for top positions within the Laura Bassi Centres.

⁴⁸ Cf. <http://era.gv.at/object/document/548>

⁴⁹ COM (2008)317 final, http://era.gv.at/object/document/171/attach/EC-Communication_BetterCareersandmoremobility_ST10059EN08.pdf

⁵⁰ Cf. http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

⁵¹ URL

⁵² For more information see <http://www.fwf.ac.at/en/research-funding/application/richter-programme/> (visited February 3, 2015).

⁵³ See <http://www.fwf.ac.at/de/ueber-den-fwf/gender-mainstreaming/fix-the-knowledge/detailseite/>.

⁵⁴ See for more information: <https://www.ffg.at/femtech-praktika>.

⁵⁵ For more information see: <http://www.w-forte.at/index.php?id=417&L=1> (visited February 3, 2015).

Furthermore, Austrian universities are obliged to design and adopt gender equality action plans. As an example, the TU Wien's gender action plan requires the inclusion of gender studies or gender specific content in curricula (at least as an elective).⁵⁶

As a structural element, the Austrian Rectors' Conference's Gender & Diversity Task Force has been established for the implementation of gender mainstreaming and to increase women's share of top-level positions at universities by offering coaching to prospective women heads of universities.⁵⁷

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
The Elise Richter Programme FWF: Fix the knowledge	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
FEMtech Praktika für Studentinnen - Einstieg in die Forschungskarriere Frauenförderungsplan TU Wien	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change	2 & 3
Laura Bassi Centres of Expertise	Individuals & Organisations (all)	Women (2)	Success rates (2)	At least 7 years	Career advancement Strategy for structural change	More 2
Austrian Universities' Gender & Diversity Task Force	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change	2 & 3

Based on the classification of Austria's implementation approach in the field of 'gender and science', Austria shows a tendency to develop and implement transformative action (e.g. gender equality action plans or a Gender & Diversity Task Force), but also adopted several career advancement-measures for women, which show more characteristics of the 'reversal'-model of gender equality policies in the research sector (e.g. the Elise Richter programme or the FEMTech internships). However, many legal provisions in Austria also focus upon institutional change and battling gender inequalities appears to be high on the government agenda. Overall, Austria has a broad repertoire of policy measures regarding gender in science.

⁵⁶ Cf. (only in German)

http://www.tuwien.ac.at/fileadmin/t/rechtsabt/downloads/Frauenfoerederungsplan_TU_Wien_26032012.pdf

⁵⁷ Cf. http://www.uniko.ac.at/arbeitsbereiche/gender_diversity/ (visited February 3, 2015).

Belgium

1. Gender in Science Knowledge 'Input'

Belgium has 12 public universities (six-French speaking and six in Flanders) and 43 university colleges (21 'hautes écoles' in the French-speaking part and 22 'hogescholen' in Flanders). One university, the Vrije Universiteit Brussel, offers a gender study programme through the RHEA Centrum Gender & Diversiteit. There are 10 federal non-university research institutions and 4 gender studies research centres. There are 3 main research funding bodies; 1 for the Wallonia-Brussels Federation and 2 in Flanders.

Women's representation in grade A research positions in Belgium is significantly lower than the EU average; in Belgium 12.2 % of the academic staff in these positions were women in 2010 (8.4 % in 2002) (She Figures 2012: 91). This is the third lowest share of women at grade A in the EU (She Figures 2012: 91). Additionally, Belgium has one of the highest Glass Ceiling Indices of all EU countries, with an index of 2.32 in 2004 and 2.25 in 2010 (She Figures 2012: 96).

2. Actors in Gender Equality

The main actors in Belgium focusing on gender equality are the Flemish Community, the Flemish Interuniversity Council, the Gender at universities high-level action group and the Wallonia-Brussels Federation. At federal level, the Ministry for the Interior and Equal Opportunities, the Centre for Equal Opportunities and Opposition to Racism and the Federal Public Service for Diversity and Equal Opportunities are active in the promotion of gender equality.⁵⁸

Neither the Belgian Federal Police Office, which is responsible for education and scientific research of the French community in Belgium, nor the Department of Economy, Science and Innovation, which is responsible for education and science in Flanders, have departments specifically for women in science.⁵⁹

However, the organization BeWISE (Belgian Women in Science) is especially focused on supporting women in science by providing networks among women scientists, organizing seminars and workshops for women in science and exchanging information with other European and international actors in gender equality in science.⁶⁰ BeWISE is a member of the European platform for women in science (EPWS).⁶¹

The Institute for the Equality of Women and Men (Institut pour l'égalité des femmes et des hommes) is responsible for the implementation of gender mainstreaming at governmental level and addresses public authorities and private institutions in terms of gender equality measures.⁶²

The Wallonia-Brussels Federation has founded a "Woman and Science" standing working group, which serves to urge equality between women and men "to implement the partnership on gender equality as well as the Wallonian Government's Roadmaps on equal opportunities." The Wallonia-Brussels

⁵⁸ http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

⁵⁹ Ibid.

⁶⁰ <http://www.bewise.be/index.php/about-bewise>

⁶¹ <http://www.bewise.be/images/bewisefolder2012.pdf>

⁶² <http://igvm-iefh.belgium.be/en/>

Partnership for researchers aims to put forward gender equality by a genre approach in scientists' careers and provides for the "perpetuation of 10 researchers in the FRS-FNRS."

The high-level action group of the Flemish Inter-university Council puts forward gender balance among professors, students and researchers in the form of a gender action plan at university level. This action plan is supposed to be transformed into an interuniversity charter on gender equality by the year of 2014.⁶³

Information on Gender Equality Offices was unavailable.

3. Framework

Comment

Belgium has set up specific laws or actions for implementing EU legislation in the field of research. The country has set up a gender equality strategy in research institutions. The regulations differ in the two regions. Only at the federal level are Gender equality plans based on legislative provisions: cf. Flanders' gender policy at universities (3a). In Belgian Higher education institutions, gender equality plans exist. However, equality plans are neither explicit nor obligatory instruments and gender equality plans are optional.⁶⁴ Specific regulations for the STI sector and universities are based on action plans and contracts/agreements rather than on legal provisions.

List of Legal Provisions

Flemish Government Act: gender balance in advisory bodies and steering committees

Labour law: General provisions

Government Agreement of 1 December 2011: requirement of the extension of anonymous curriculum vitae for applications in the public sector (first round)

Wallonia-Brussels Partnership: maternity leave: all researchers enjoy the same rights to grant extension and alternative incomes during maternity leave. The provisions are applicable to researchers with fixed-term contracts as well as grant beneficiaries.

Policy Instruments

Gender mainstreaming is a legal obligation in Belgium; however mainstreaming processes were taken up in public research in diverse forms and pace.⁶⁵ The Belgium **Action Plan for Higher Education** (2012) sets requirements on universities to develop gender policies bottom-up without indicating specific fields (issues) of intervention. A **National Action Plan on Gender Mainstreaming** (2008) was foreseen since 2008 without effective impact on research. As reaction to the European communication 'Better Careers and More Mobility: A European Partnership for Researchers' (2008), a **Wallonia-Brussels Partnership for Researchers** was established in 2011. This partnership follows the broad themes of the EC communication and thus calls for open recruitment, social security benefits for researchers, adequate

⁶³ (ERA facts and figures 2013)

⁶⁴ EC (2014) Gender equality policies in public research

⁶⁵ EIGE (2014) Effectiveness of institutional mechanisms for the advancement of gender equality

working conditions, support gender equality and improved access to postdoctoral positions. The research funding agency FNRS supports extensions of grants due to maternity leave. In 2013, an **Inter-University Charter on Gender Equality** was established, unfortunately, no evidence was provided on the content and process relating to this Charter.

The Flemish' Inter-University Council (VLIR) submitted its **Gender Action Plan Higher Education** (Actieplan Gender Hoger Onderwijs) in 2012, drawing upon a concept for more gender-friendly universities and seeking to improve the gender balance in higher education.⁶⁶

Based on legislative provisions sex-ratio of academic staff and students, specifically the number of postdoctoral researchers in universities, the share of women in permanent positions, and women in grade A is part of regular monitoring exercises.

4. Implementation Approach

In Belgium, policy measures in the field of gender and science are concentrated on the **Wallonia-Brussels Partnership for Researchers (2011)**⁶⁷ and Flanders' gender policy at universities. The Wallonia-Brussels Partnership for Researchers promotes gender equality in research, women in scientific careers and established a 'Women and Science' standing working group. Within Flanders' gender policy at universities, the Flemish universities developed Gender Action Plans to improve gender balance among professors, researchers and students.⁶⁸

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Women and Science' working group (Wallonia-Brussels Partnership, Action 19)	Organisations & Individuals (all)	Women (2)	None (intended, but not specified) (1)	Missing	Career advancement	1
Flemish Government Act of 13.07.2007, flexible quota	Organisations (3)	None specifically (3)	Missing/None	Missing	Strategy for structural change	3
Flanders' Gender Action Plan (Actieplan Gender Hoger Onderwijs)	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3

⁶⁶ See http://www.vlir.be/media/docs/Gelijkekansen/ActieplanGender_website.pdf.

⁶⁷ See http://www.euraxess-cfwb.be/doc/SPW_DG06_Parteneriat_FWB_UK_BD.pdf.

⁶⁸ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

The Wallonia-Brussels Partnership, Action 18: Incorporate the question of gender into course programmes	Organisations (3)	None specifically (3)	None (intended, but not specified) (1)	Missing	Strategy for structural change	3
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The Flemish Gender Action Plan on gender in higher education and the flexible quota for committees and other decision-making bodies belong to the 'transformation-model'. These instruments aim at a structural change of organisations and address the 'gendered-ness' of institutions. The policy instruments within the framework of the Wallonia-Brussels Partnership for Researchers vary in their model-membership; the mandate of the 'Women and Science' working group for example does not clearly belong to a single of the three models, but indicates characteristics of every model - it aims at organisations *and* individuals, but addresses women's disadvantages in the science sector in the first place ('reversal-model') and there is no specific monitoring action mentioned, only the intention to monitor this instrument (this can be seen as a characteristic of the first, the 'inclusion-model'). Action 18 of the Partnership, on the other hand, is a strategy for structural change of the higher education environment; it focuses upon organisations and includes a gender dimension instead of one gender's issue (thus belonging overall to the third, 'transformation-model').

Switzerland

1. Gender in Science Knowledge 'Input'

Switzerland has 2 federal institutes of technology (ETHs), 10 cantonal universities, 5 public and 2 private regional universities of applied sciences (UAS), 17 universities of teacher training and 15 higher education institutions of art and music.⁶⁹ The public research sector further comprises 17 non-university research institutions⁷⁰. There are 6 gender study programmes⁷¹ and 10 gender studies centres⁷² in Switzerland. The Swiss National Science Foundation (SNSF)⁷³ and the Swiss Innovation Promotion Agency (CTI)⁷⁴ are the two key research funding organisations.⁷⁵

The proportion of women in grade A academic positions is significantly above the EU-27 average: there were 25.9 % women in these positions in 2010, which is also a vast increase since 2002 (11 %) (She Figures 2012: 91). The Swiss Glass Ceiling Index is the second lowest in the EU (behind Romania): 1.35 in 2010 (2004: 1.81) (She Figures 2012: 96).

2. Actors in Gender Equality

In Switzerland the actors focusing on gender equality are the **State Secretariat for Education, Research and Innovation (SERI)**, the **Federal Institute of Technology (ETH)** with the respective **Equal Opportunity Managers (EOMs)** from the ETH, the universities and the universities of applied science. In addition, the **Conference of Equal Opportunities Managers at Swiss Universities (KOFRAH)** and the **Rectors' Conference of the Swiss Universities of Applied Sciences (KFH)** with its commission for Equal Opportunities (FKCh) are active in gender equality in research. The **Commission and Officer for Equality**, the **Federal Office for Professional Training and Technology**, the **working group for gender and science policy**, as well as the **Federal Commission for Women's Issues (FCWI)** and the **Federal Office for Equality between Women and Men**, promote gender equality.⁷⁶

The Equal Opportunity Managers (EOMs) from the universities of applied sciences in Switzerland are organized in the Rector's Conference of the Swiss Universities of Applied Sciences. Whereas the Equal Opportunity Managers (EOMs) of the Federal Institute of Technology (ETH) and the universities are

⁶⁹

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ch/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 19, 2015).

⁷⁰ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ch/country?section=ResearchPerformers&subsection=PublicResearchOrganisation.

⁷¹ See <https://www.gendercampus.ch/de/studium-forschung/studium/studiengaenge#>.

⁷² See <http://www.gender-studies.org/en/#ch>.

⁷³ For more information see <http://www.snf.ch/en/Pages/default.aspx>.

⁷⁴ For more information see <https://www.kti.admin.ch/kti/en/home.html>.

⁷⁵ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ch/country?section=ResearchFundings&subsection=GovernmentAndRegionalAuthorities.

⁷⁶

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ch/country?section=Overview&subsection=StrResearchSystem

organized in the Conference of Equal Opportunities Managers at Swiss Universities (KOFRAH).⁷⁷ The KOFRAH is committed to gender mainstreaming in all fields at universities and in university and scientific policy at cantonal and federal level. KOFRAH provides services for all offices working on women's issues and equal opportunities in Switzerland and fosters the coordination, planning and implementation of joint activities at federal level, as well as the flow of information among these offices.⁷⁸

The Swiss National Science Foundation (SNSF) is the most important institution for research funding in Switzerland and comprises the Commission and Officer for Equality. The SNSF supports the National Centres of competence in Research, which are obliged to set up measures for the advancement of women.⁷⁹ The Federal Office for Professional Training and Technology and the State Secretariat for Education and Research are committed to increasing the number of women in scientific and research institutions.⁸⁰

A legal basis or rules for gender equality plans do exist in Switzerland. However, equality plans are not obligatory instruments and subject to the individual universities' decision-making.⁸¹

3. Legal, Strategic and Operational Framework

Comment

The relevant Swiss laws stipulate a general commitment to gender equality. The priorities are set by each university individually. Gender Equality Plans are optional and subject to the individual universities.

List of Legal Provisions

Constitution: equal opportunity for women and men

Law on Equal Opportunities: equal opportunity for women and men

Law on the Promotion of Universities and Cooperation between Institutions of Higher Learning: gender equality in higher education

Law on Universities of Applied Sciences: gender equality in higher education

Policy Instruments

Switzerland is not officially committed to mainstream gender; however the Swiss federal government financially supports the establishment and institutionalisation of gender equality agents in universities through the **Federal Programme for Equal Opportunities at Swiss Universities (2013-2016)** and its predecessors and the **Federal Council Dispatch on the Promotion of Education, Research and Innovation (2008-2011)**, prolonged to 2013. The Swiss National Science Foundation SNSF developed a

⁷⁷ http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf (Benchmarking policy measures, 2008, p. 132)

⁷⁸ <http://home.epws.org/filter/SWITZERLAND/Konferenz-der-Gleichstellungs-und-Frauenbeauftragten-an-Schweizer>

⁷⁹ http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf (Benchmarking policy measures, 2008, p. 132)

⁸⁰ Ibid.

⁸¹ Source: Gender Equality Policies in Public Research, p. 19

overall concept for equality of women and man, **Leitbild des SNF für die Gleichstellung von Frau und Mann**. While the **Federal Council Dispatch** intends to improving the quality of teaching; making working conditions more attractive and encouraging equal opportunities through: tenure tracks, defining the roles and job titles of assistant staff, implementing equal opportunity measures and supporting childcare facilities; the **Federal Programme** aims at institutionalising gender action plans in universities, supporting gender studies, increasing the numbers of female professors, gender action plans must address the structural level of the university in terms of teaching, research and community service. The programme is monitored through budget spent on gender equality; women grade A; staff head counts; reconciliation; Work-life-balance student sex-ratio; Gender aspects in teaching (education & research). For all universities, a precondition to receiving public funds for gender equality measures is having a gender equality plan. In contrast to this, the **SNFS Leitbild** does not commit to continuous monitoring or specific indicators, but foresees the proper management of SNSF gender equality objectives, e.g. equal representation of women and men in jobs and decision-making; institutionalisation of gender equality at SNSF; concrete assignment of responsibilities for gender equality at leadership level; definition of equality objectives and monitoring; establishment of gender sensitive communication tools; targeted intervention to outbalance existing inequalities.

4. Implementation Approach

There are several measures addressing gender in the research domain. The most extensive one is the Equal Opportunity at Universities programme at federal level that supports universities in designing gender action plans and integrating more gender equal structures.⁸² The Swiss National Science Foundation (SNSF) promotes a representative gender balance in the election of researchers in SNSF's evaluation committees and offers different funding schemes for women; for example, the Marie Heim-Vögtlin (MHV) programme⁸³, which is aimed at women doctoral students and postdocs who had to interrupt or reduce their research activities due to family commitments, or the 120 % support grant⁸⁴, aimed at postdoctoral researchers who need to reduce their work-time during an important career stage due to childcare. A number of measures promote scientific and technical careers to young girls and women: e.g. WINS (Women in Science and Technology) at the Université de Fribourg offers internships and mentoring projects for girls and women, or the Diversity@CTI initiative introduced by the Commission for Technology and Innovation (CTI), seeking to encourage greater diversity and to increase women's proportion involved in innovative projects and entrepreneurship.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Marie Heim-Vögtlin (MHV) Programme (SNSF)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2

⁸² See section 3 and <http://www.crus.ch/information-programme/programme-cus-p-4-equal-opportunity-gender-studies.html?L=2>.

⁸³ See <http://www.snf.ch/en/funding/careers/mhv-grants/Pages/default.aspx> (visited January 28, 2015).

⁸⁴ See <http://www.snf.ch/en/funding/supplementary-measures/120-support-grant/Pages/default.aspx> (visited January 28, 2015).

Equal Opportunity at Universities programme 2013-2016	Organisations (3)	None specifically (3)	Yes, annually, personnel statistics	3 years	Strategy for structural change	3
WINS Women in Science and Technology	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Diversity@CTI Initiative (The Innovation Promotion Agency – Commission for Technology and Innovation)	Individuals & Organisations (all)	Women (2)	Missing	Missing	Career advancement	1 & 2
120% Support Grant	Individuals (1 & 2)	Women & men (1)	Missing	Missing	Work-Life-Balance	(1 & 2)

Considering the Swiss implementation approach in the science domain, a transformative approach to gender equality is recognisable. Particularly, measures implemented at national level – such as the Equal Opportunity at Universities programme or SNSF’s internal guidelines for gender equality – also aim at institutional and cultural change in the research area, even if it is not the key or only objective. Other measures (e.g. the 120 % support grant or the Marie Heim-Vögtlin programme) aim at women’s career advancement and mainly focus upon the out-balancing of women’s disadvantages, making Switzerland a case of mixed gender equality concepts, yet, with a comparably richer repertoire of gender equality policy instruments.

Czech Republic

1. Gender in Science Knowledge 'Input'

There are 28 public universities in the Czech Republic, as well as 44 private universities and 77 non-university research institutions. One university, the Charles University in Prague, offers gender study programmes (on a Masters level)⁸⁵. The Czech Republic has three main research funding organisations (the Ministry of Education, Youth and Sports, the Czech Science Foundation and the Technology Agency of the Czech Republic)⁸⁷.

The proportion of women in grade A positions in academia in the Czech Republic is, with 13.1 % in 2008 (8.7 % in 2002), lower than the EU-27 average (She Figures 2012: 91). In 2008, the Glass Ceiling Index for Czech Republic was above EU-27 average with 2.12, which yet marks a significant improvement to 2004, when the Index was at 3.12 (She Figures 2012: 96).

2. Actors in Gender Equality

The main actor focusing on gender equality in science is the **National Contact Centre – Gender and Science** (Centre) of the Sociological Institute of the AVCR (Academy of Sciences of the Czech Republic).⁸⁸ The centre publishes studies and analyses in gender research and provides expertise and consultation services to state and public administration bodies.⁸⁹ It has become an independent research department in 2015 and is the only research department in the Czech Republic focused on gender equality in research.⁹⁰ The centre was initially established as a team by a group of feminist activists under the EUPRO programme, which was announced by the **Ministry of Education, Youth and Sports (MEYS)** in 2001. MEYS organises the Paulová Award for women in science together with the National Contact Centre for Gender and Science.

MEYS comprises the Group of Science and Higher Education, which is not involved in gender equality activities. Since the AVCR and higher education institutions in the Czech Republic “were established by law and are formally independent of the government [...] MEYS does not directly control the HE sector and the AVCR”.⁹¹ However, MEYS can exert power over the higher institutions through the Accreditation Commission, and financial resources for both higher education and the AVCR are controlled by the state.⁹²

The **Government Council for Research and Development** is the key policy and expert advisory body in the Czech Republic. However, the council is not concerned with gender equality.⁹³

3. Framework

⁸⁵ See <http://gender.fhs.cuni.cz/KGSENG-1.html>.

⁸⁷ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/cz/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

⁸⁸ See <http://www.genderaveda.cz/>

⁸⁹ See <http://soc.cas.cz/en/department/national-contact-centre-gender-science>

⁹⁰ Ibid.

⁹¹ http://ec.europa.eu/research/science-society/document_library/pdf_06/czech-research-funding_en.pdf

⁹² Ibid.

⁹³ Ibid.

Comment

There are no specific provisions on STI or higher education. Female researchers are positively affected by the general legislation on equal opportunities and non-discrimination, regarding recruitment processes, retention and career progression, as stated in the Act No 262/2006, Coll. on labour code, the Act No 435/2004 Coll. on employment and the Act No 198/2009, Coll. on antidiscrimination.⁹⁴ No information on whether offices for gender equality are based on legal provisions could be found.

List of relevant Provisions

General legislation on non-discrimination and equal opportunities applies also to the research field and to the recruitment, retention and career progression of female researchers:

- **act no 262/2006**, coll. on labour code: maternity leave of six months with return to the same position (not for fixed contracts) and parental leave up to three years
- **act no 435/2004** coll. on employment
- **the act no 198/2009**, coll. on antidiscrimination

Governmental resolution no. 1033 of 2001: measures on equal opportunities and (among others) the Council for Equal Opportunities for Women and Men as an advisory body of the government

Policy Instruments

The Czech Republic committed to gender mainstreaming in 2001. In 2010, the **Strategy for Equal Opportunities for Women and Men for 2011-2015** was announced indicating one of its main objectives was to develop a new long-term strategy for this policy field, i.e. developing points of departure. A gender equality policy was adopted in November 2014.⁹⁵ In absence of a strategic orientation for gender equality in research, in 2013 the Ombudsperson investigated gender discrimination at the Czech Science Foundation and the Foundation decided to obtain an independent gender audit. No further information on this process is available.

In 2013, the Ministry of Education, Youth and Sports (MEYS) adopted a **document on the State of gender equality and a proposal of a mid-term strategic plan** (on issues within the remit of MEYS), in addition, it installed a working group for Equal Opportunities of Women and Men at MEYS. MEYS plans its activities along **annual activity plans**, which refer to equal opportunities for women and men and aims at considering gender in curricula, textbooks and teaching materials of graduate schools. The ministry has provided funding for the National Contact Centre for Gender and Science (NKC) at the Czech Academy of Sciences.

⁹⁴ http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf

⁹⁵ See <http://www.vlada.cz/cz/clenove-vlady/pri-uradu-vlady/jiri-dienstbier/aktualne/vlada-schvalila-vladni-strategii-pro-rovnost-zen-a-muzu-v-ceske-republice-na-leta-2014---2020-124855/>

4. Implementation Approach

The Czech Republic does not provide many policy instruments regarding gender equality in the research area. However, the new Government Strategy for the Equality of Women and Men of the Czech Republic contains a section on education, research and gender equality to strengthen gender equality in the educational system.⁹⁶ The Milada Paulova-award, organised by the Ministry of Education, Youth and Sports (MEYS) and the National Contact Centre for Gender and Science, honours lifelong achievements of women researchers, each year in a different field of science.⁹⁷ The L’Oreal Scholarship in the Czech Republic financially supports young women natural scientists and the Czech Science Foundation (GACR) allows grantees to interrupt or postpone research for maternity and parental leave⁹⁸.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Milada Paulova Award (2009)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
L’Oreal Scholarship Czech Republic for Women in Science (2007)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
Czech Science Foundation (GACR) grants (2010)	Individuals (1 & 2)	Women & Men (1)	Missing	Missing	Career advancement/Work-Life-Balance	1 & 2

All of these operative instruments can be described as ‘Career advancement’-instruments and in the case of the GACR grants as a ‘Work-Life-Balance’-instrument, additionally. They target individual women, and in the case of the GACR grants, both women and men in terms of parental leave, to support their career progression or their retention and therefore rather belong to the ‘inclusion’- and ‘reversal’-model (the extra support to out-balance women’s alleged disadvantages points to the latter) than the ‘transformation’-type.

⁹⁶ See http://www.vlada.cz/assets/ppov/rovne-prilezitosti-zen-a-muzu/Projekt_Optimalizace/Government_Strategy_for-Gender_Equality_2014_2020.pdf

⁹⁷ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

⁹⁸ For more details see <http://en.zenyaveda.cz/changing-science/parenthood-grants/> (visited January 27, 2015).

Germany

1. Gender in Science Knowledge 'Input'

In Germany, there are 106⁹⁹ public universities and about 106¹⁰⁰ private universities, as well as 317¹⁰¹ universities of applied science. There are 26 gender study programmes at different levels (Bachelor, Master, doctoral).¹⁰² The public research sector in Germany is dominated by the four main non-university research organisations and their institutes (Max-Planck-Gesellschaft currently has 82¹⁰³ institutes; Fraunhofer-Gesellschaft: 67¹⁰⁴; Helmholtz Gemeinschaft: 18¹⁰⁵; Leibniz Gemeinschaft: 89¹⁰⁶). In contrast, there are 25 gender studies centers.¹⁰⁷ The main research funding organisations are the Federal Ministry of Education and Research (BMBF¹⁰⁸) and the DFG¹⁰⁹ (Deutsche Forschungsgemeinschaft).

In 2010, 14.6 % of academics in grade A positions were women (and only 8 % in 2002), which is below EU average (She Figures 2012: 91). The Glass Ceiling Index is, however, quite low; it was 1.89 in 2004 and 1.45 in 2010 – the fourth lowest value in the EU (She Figures 2012: 96).

2. Actors in Gender Equality

In Germany the actors responsible for gender equality are **the Federal Ministry of Education and Research (BMBF)**, including its **Division for Equal Opportunities in Education and Research** (“Referat Chancengleichheit in Bildung und Forschung”), the **Joint Science Conference (GWK)**, the **German Research Association (DFG)**, as well as the individual **Länder Governments** of the German Federal States. At universities and in research organizations **gender equality officers (BuKoF and LaKof)** are responsible for the implementation of gender equality measures, while the **German Council of Science and Humanities (Wissenschaftsrat)** and the **Center of Excellence Women and Science (CEWS)** are also committed to gender equality.¹¹⁰

While the BMBF provides funds for programmes that promote equal opportunities in German research institutions, it has also set up the Division for Equal Opportunities in Education and Research, which is part of the BMBF’s Strategies and Policy Issues Directorate-General, and supports the BMBF in implementing equal opportunities in all fields of their work. The division is also responsible for the

⁹⁹ See

<https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Hochschulen/Tabellen/HochschulenHochschularten.html>.

¹⁰⁰ See <http://www.hochschulkompass.de/hochschulen/download.html>.

¹⁰¹ See

<https://www.destatis.de/DE/ZahlenFakten/GesellschaftStaat/BildungForschungKultur/Hochschulen/Tabellen/HochschulenHochschularten.html>.

¹⁰² See <http://www.gender-studies.org/en/#de>.

¹⁰³ See <http://www.mpg.de/kurzportrait> (visited January 19, 2015).

¹⁰⁴ See <http://www.fraunhofer.de/de/ueber-fraunhofer/zahlen-und-fakten.html> (visited January 19, 2015).

¹⁰⁵ See http://www.helmholtz.de/en/about_us/ (visited January 19, 2015).

¹⁰⁶ See <http://www.leibniz-gemeinschaft.de/en/about-us/> (visited January 19, 2015).

¹⁰⁷ See <http://www.gender-studies.org/en/#de>.

¹⁰⁸ For more information see <http://www.bmbf.de/en/index.php>.

¹⁰⁹ For more information see <http://www.dfg.de/en/index.jsp>.

¹¹⁰ www.gesis.org/cews see also:

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/

analysis of the needs for action in research and education and helps to put forward strategic measures and projects in close cooperation with the BMBF's specialist directorates-general and divisions and with stakeholders in this area.¹¹¹

Since 2008 the Joint Science Conference (GWK) is responsible for the collection of statistical data about women in research and higher education. The collected data and its analysis are the basis for measures in gender equality in order for women to attain higher positions in academia.¹¹²

The DFG Head Office has initiated a working group on gender equality that works on measures for the improvisation of work-life balance and reconciliation for scientists. The working group also aims at increasing the numbers of women scientists in decision-making and evaluation processes and a better support of young scholars (female or male). The DFG conducts studies on the dynamics of gender in funding, monitors success rates by gender and publishes their findings on a regular basis.¹¹³

The Center of Excellence Women and Science (CEWS) is committed to improving gender equality in science and research. CEWS also "aims to increase the number of women in leading positions at universities and research institutions, to raise the efficiency of political measures aimed at equality".¹¹⁴

In order to raise the number of women in higher positions in science, the Federal Government and the *Länder* provide funding of EUR 150 million in the framework of the Female Professors Programme.¹¹⁵

Offices for gender equality are set up in accordance with the individual federal state law of the *Länder* and may differ between these federal states.¹¹⁶ Other local networks and actors operate also in the field, e.g. the MentorinnenNetzwerk¹¹⁷ in Hessen supports young women students through mentoring, training and networking in STEM.

3. Framework

Comment

The regulations on higher education differ from state law to state law, but there is a solid basis of legal protection for parents and for gender equality in Higher Education. Legal provisions require gender equality plans or women support plans in German research institutions and universities.¹¹⁸

List of Legal Provisions

Constitution: Art. 3 II of the basic law stipulates gender equality before the law and a state mission to promote the actual implementation of equal rights for women and men and to take steps to eliminate disadvantages that now exist.

¹¹¹ <http://www.bmbf.de/en/474.php>

¹¹² <http://www.gwk-bonn.de/index.php?id=202>

¹¹³ The Gender Challenge in Research Funding, p. 23 & 29

¹¹⁴ ERA Facts and Figures 2013

¹¹⁵ Ibid.

¹¹⁶ See Hochschulrahmengesetz > http://www.gesetze-im-internet.de/hrg/___3.html

¹¹⁷ See <http://www.mentorinnennetzwerk.de/home/>.

¹¹⁸ Source: Gender Equality Policies in Public Research, p. 19

Framework Act for Higher Education (Hochschulrahmengesetz): Equal rights for women and men. The institutions of higher education shall promote the achievement of equal rights for women and men and shall work towards the removal of existing disadvantages. The functions and participatory rights of the commissioners for women's affairs and equal rights /gender equality officers of the institutions of higher education shall be regulated by the *Land* (state) legislation.

Legislation/Law: Academic Fixed-Term Contract Law (Wissenschaftszeitvertragsgesetz, of April 2007): right of prolongation of fixed-term contracts due to family care (parenthood or relatives) ¹¹⁹

General Act on Equal Treatment (Allgemeines Gleichbehandlungsgesetz AGG, of August 2006): positive action; permissible difference of treatment on grounds of occupational requirements (legal basis for provisions on female gender equality officers in the federal Higher Education Acts).

Maternity Protection Act (Mutterschutzgesetz): maternity leave

Parental allowance and parental leave Act (Bundeselterngeld- und Elternzeitgesetz): paid parental leave

Act on Appointments to federal bodies (Bundesgremienbesetzungsgesetz): ensuring equal participation by men and women in **16 Gender Equality Laws in the German Länder for the public service:** most of the laws are applicable for universities (of applied science), if the higher education law does provide more specific regulations. **16 Higher Education Laws in the German Länder:** most of the state laws contain regulations on gender equality officers, quotas & gender equality plans

AV-Glei

Policy Instruments

Gender mainstreaming is an obligation in the German public sector.¹²⁰ The Federal Government established an equal opportunities policy based on gender mainstreaming as universal principle and horizontal task. As the legislative responsibility for gender equality in higher education establishments is subject to regulations by the German states, the federal administration coordinates and supports the states and universities directly through strategic programmes.

In 2006 the German Science Council, research associations and the German research foundation initiated the '**Push for equal opportunities of women and men in research**', which was reviewed and renewed in 2012.¹²¹ The re-newed recommendations aim to continue the former approach concerning actions to promote gender equality and advance women to academic senior positions, but suggest a more binding approach, e.g. the introduction of a cascade-model for research organisations, the continuation of ranking universities by using the research foundation's research-oriented standards for gender equality as well as to extend the existing monitoring of sex-disaggregated personnel statistics by looking closer into criteria for fixed-term contracts, part-time employment and stipends.

¹¹⁹ Section 2, para 5: provides that fixed-term contracts may be extended where leave is granted for the purpose of caring for one or several children under the age of 18 or other relatives in need of long-term care or where there is an entitlement to statutory parental leave.

¹²⁰ EIGE (2014) Effectiveness of institutional mechanisms for the advancement of gender equality

¹²¹ <http://www.wissenschaftsrat.de/download/archiv/2218-12.pdf>

The German Research Foundation (DFG) established its **Research-oriented Standards on Gender Equality** in 2008. Specific objectives were to be formulated by universities themselves. Thus, the DFG standards come as managerial tool and stimulated universities to design gender equality plans. The process placed gender equality high on the policy agenda of German universities.

In addition to this, the federal government integrated equality related objectives into two key incentive programmes for universities and research organisations, i.e. the **Excellence Initiative** (2006-2017) and the **Pact for Research and Innovation** (2005-2015). The Pact required non-university research organisations to develop strategies for utilising female researcher's potential, counteracting the underrepresentation of women in leadership positions and introduced monitoring of HR- data on sex-ratios per rank, while gender balance was one evaluation criterion of applications to funds of the **Excellence Initiative**. Besides this, the federal government established a **Programme for Female Professors** in 2007 (see chapter on Implementation approach).

4. Implementation Approach

Germany has numerous policy instruments in the field of gender and science, both at Federal level and at the level of the *Länder*. The types of instruments greatly vary as well; there are many broader programmes with a number of specific measures, as well as single actions, such as the 'Girls-do-Tech'-database that offers an overview of all current girls-tech-projects in the state of Baden-Württemberg.¹²² As an extensive initiative, the Research-oriented standards on gender equality, introduced by the German Research Foundation (DFG), provides the framework for universities to voluntarily commit themselves to the implementation of the standards and to design institutional gender equality concepts, which are assessed and ranked by performance.¹²³ The DFG offers advice and support to the member institutions.

Running since 2007, the **Federal Programme for Female Professors** initiated by the Federal Ministry of Education and Research (BMBF) jointly with the states, promotes outstanding women researchers. Based on positive evaluations of a university's gender equality concept, the university can receive funding for up to three professorships awarded to women. Since its launch, 260 additional women professors have been appointed at German higher education institutions, according to the Ministry.¹²⁴ The continuation of the programme was agreed upon in 2012.

Also at the federal level, two key incentive schemes include the obligation for universities and research institutions to draw up internal gender equality concepts. The **German Pact for Research and Innovation**¹²⁵, started in 2007, requires research performing organisations to work towards gender balance, especially in leading positions. The organisations report on the progress made within the annual monitoring.¹²⁶ The Excellence Initiative provides funding for the advancement of science and

¹²² See <http://www.girls-do-tech.de/>.

¹²³ See

http://www.dfg.de/en/research_funding/principles_dfg_funding/equal_opportunities/research_oriented/index.html (visited January 30, 2015).

¹²⁴ See <http://www.bmbf.de/en/494.php> (visited January 30, 2015).

¹²⁵ For more information see <http://www.bmbf.de/de/3215.php> (visited January 30, 2015).

¹²⁶ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

research at German universities and gender equality is an integral part of the scheme as the evaluation of proposals considers whether the proposed measures promote gender equality in research.

There are several implementation instruments to promote gender equality in the field of natural sciences, technology, mathematics, and engineering. The National Pact for Women in MINT aims to encourage more women to pursue careers in STEM by funding advancement actions for women. Exemplary for state level measures, the SciMento programme is a 2-year group mentoring programme that supports women PhD students and post-docs in natural sciences, engineering and life sciences at all universities in Hessen.¹²⁷ At a more local level, the University of Aachen implemented the ‘building bridges’ project¹²⁸, which aims at the integration of gender and diversity perspectives in research and teaching in engineering.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
SciMento programme	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
Federal Programme for Female Professors (BMBF) (2008-2017)	Organisations & Individuals (all)	Women (2)	Evaluation reports	Missing	Career advancement Strategy for structural change	All
DFG Research-oriented standards on gender equality	Organisations (3)	None specifically (3)	Evaluation reports in 2009, 2011 and 2013. Annually since 2014: universities' personnel statistics	Missing	Strategy for structural change	3
German Pact for Research and Innovation	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
building bridges – Integration of gender and diversity perspectives in electric mobility and teaching Girls-do-tech	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
MentorinnenNetzwerk	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
National Pact for Women in MINT Careers	Organisations (3)	Women (2)	Missing	Missing	Career advancement	3 & 2

¹²⁷ See for more details <http://www.scimento.de/programm/uebersicht-veranstaltungen/>.

¹²⁸ See <http://www.gdi.rwth-aachen.de/engl/research/buildingbridges/>.

In Germany, instruments implemented at federal level provide incentives for institutional change to promote gender equality, whether it is in terms of incentives for research funding or in form of specific funding for more permanent positions for women at institutions. Yet, there are numerous measures at the state or regional level mostly concentrating on women's career advancement and the out-balancing of women's disadvantage, tending to articulate gender equality issues synonymously with women's inequality or women's deficits. All in all, Germany shows a complex approach of gender equality instruments in the research sector, with a combination of transformative action and measures that rather focus on 'reversal' and 'inclusion'.

Estonia

1. Gender in Science Knowledge 'Input'

In Estonia, there are 7 universities, 6 public and 1 private¹²⁹. None of these higher education institutions offer programmes in gender studies; however, the University of Tartu has a Unit of gender studies that provides some courses within the Faculty of Social Sciences¹³⁰, and in Tallinn University the Institute of International And Social Studies includes a Gender Studies Centre offering some basic courses to students in Social Sciences¹³¹. In contrast to the 17 public, non-university research institutions and the eight associated institutions of the Academy of Science¹³², there is one gender studies research centre; the Estonian Women's Studies and Resource Centre (ENUT)¹³³. Estonia has 3 key research funding organisations (Archimedes Foundation, INNOVE foundation and the Estonian Research Council).¹³⁴

The proportion of women at the highest research positions in Estonia is below the EU-27 average (She Figures 2012: 91). In 2004¹³⁵, 17.2 % of academic staff at grade A level were women, thus making Estonia the only EU country where women's presence at grade A level has not strengthened between the reference years (She Figures 2012: 90/91).¹³⁶

2. Actors in Gender Equality

The Estonian Government works towards gender equality in Estonia. It acts on the basis of the Gender Equality Act, the Estonian Lifelong Learning Strategy 2020, as well as on the basis of the Research and Development and Innovation Strategy for 2014-2020 "Knowledge Based Estonia 2014-2020".¹³⁷

Although the gender equality policies and legislation as known in Europe are relatively new in Estonia, a gender equality infrastructure consisting of relevant bodies and legal acts is in place.

In 2004, the Gender Equality Act and in 2009 the Equal Treatment Act were enacted. At the **Ministry of Social Affairs** there is a **Department for Gender Equality** that is responsible for gender equality policies and there is also a **Gender Equality and Equal Treatment Commissioner**.

This position was created with the adoption of the Gender Equality Act in 2004. In 2009, the Equal Treatment Act was enacted and the Commissioner became also responsible for monitoring compliance with this law: the title changed in to **Gender Equality and Equal Treatment Commissioner**. The Equal Treatment Act has a broader aim to ensure the protection of persons against discrimination on the

¹²⁹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 21, 2015).

¹³⁰ See <http://www.ut.ee/gender/?ln=2>.

¹³¹ See <http://www.tlu.ee/en/institute-of-international-and-social-studies>.

¹³² See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 21, 2015).

¹³³ See <http://www.enut.ee/enut.php?keel=ENG&id=87>.

¹³⁴ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

¹³⁵ Unfortunately, there is no more current data for Estonia, cf. She Figures 2012.

¹³⁶ There is no Glass Ceiling Index for Estonia included in the She Figures report 2012 due to a lack of current data.

¹³⁷ https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf and

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ee/policydocument/policydoc_0009

grounds of nationality, race, colour, religion or other beliefs, age, disability or sexual orientation. The Act provides the principles of equal treatment, duties upon implementation and promotion of the principle of equal treatment and resolution of discrimination disputes. The priorities of the Commissioner in the field of gender equality have been the gender wage gap, poor health of men and domestic violence. However, there are difficulties to implement these acts. For instance, since 2004, when the Gender Equality Act was put into force, there has been a plan and an obligation by law to form a Gender Equality Council as an advisory body within the Ministry of Social Affairs. The formation of the Council has been postponed several times. Also, the employers have a responsibility of collecting gender disaggregated statistics on their employees, but there are no penalties or other measures to enforce this obligation.¹³⁸The last significant development in gender equality institutions took place in October 2013, when the Estonian Government established the Gender Equality Council, an advisory body to the Government. The tasks of the Gender Equality Council are advising the Government in matters related to strategies for promoting gender equality, approving the general objectives of gender equality policy, and giving opinions to the Government concerning the gender mainstreaming of national programs.¹³⁹

3. Framework

Comment

Legal provisions exist regarding equal treatment of men and women and the promotion of gender equality for the private and public sector and for especially for the workplace. Also, the Gender Equality Act says explicitly that educational and research institutions have to promote equality between men and women.¹⁴⁰

List of Legal Provisions

Constitution: equal treatment of men and women

Gender Equality Act, amended in 2012: equal treatment of men and women; promotion of equality of men and women as a fundamental human right and for the public good in all areas of social life; prohibition of discrimination on the grounds of sex in the private and public sectors; obligation of state and local government authorities, educational and research institutions and employers to promote equality between men and women; the right to claim compensation for damage

Republic of Estonia Employment Contracts Act: obligation for employers to guarantee the employees the environment of non-discrimination and promote the principles of equal treatment according to the Gender Equality and Equal Treatment Acts

Policy Instruments

¹³⁸ http://ec.europa.eu/justice/gender-equality/files/exchange_of_good_practice_ee/ee_discussion_paper_ee_2013_en.pdf

¹³⁹ http://www.unwomen.org/~media/headquarters/attachments/sections/csw/59/national_reviews/estonia_review_beijing20.ashx

¹⁴⁰ http://www.unwomen.org/~media/headquarters/attachments/sections/csw/59/national_reviews/estonia_review_beijing20.ashx

Estonia is committed to gender mainstreaming. The **Gender Equality Act** sets forth the objective to guarantee equal treatment for women and men to foster gender mainstreaming in all spheres of social life. The act abides closely to EU directives on equal opportunity, equal treatment and harassment. Specifically to research institutions, the act foresees equal treatment of women and men in vocational guidance and professional development as well as curricula and study materials to facilitate the abolishment of unequal treatment.

There is no (evidence on a) strategic orientation how to implement equality legislation in the higher education sector. Further, there are no specific measures to foster gender equality in the research sector or to include the gender dimension in research programmes.

Estonian Lifelong Learning Strategy 2020: gender equality is one of 9 principles for developing the LLL-system: eradication of vertical segregation of education and labour market; rising awareness on gender stereotypes; boy's dropout from education and training.

Estonian Research and Development and Innovation Strategy 2014-2020 "Knowledge-based Estonia": lack of gender balance in academic recruitment, grant allocation and unequal representation in decision-making.

4. Implementation Approach

In Estonia, the Gender Equality Act (adopted in 2004, latest amendments in 2012) is the key programme regarding gender equality; it provides for the prohibition of discrimination on the grounds of gender in the private and public sectors.¹⁴¹ It further obliges employer to guarantee employees a non-discriminatory environment and to promote the principles of equal treatment.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Employers' obligation to promote gender equality (Gender Equality Act)	Organisations (3)	Women & Men (1)	Missing	Missing	Awareness raising	1 & 3
Government's Action Plan to Reduce the Gender Pay	Organisations (3)	None specifically (3)	Missing	Missing	Structural change	3

¹⁴¹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

The measures within the Gender Equality Act can be seen as transformative actions, they promote institutional change. These instruments address equal opportunities, equal access and non-discrimination in the workplace; yet, they are, first and foremost, policies for the labour market and only tangentially apply to the research sector (e.g. right to work in a non-discriminatory environment clearly applies to the research area as well, but there are no specifications beyond that), thus, making it rather difficult to identify a gender equality model in the field of gender and science.

Spain

1. Gender in Science Knowledge 'Input'

Spain has 50 public universities, as well as 32 private universities¹⁴² and 89¹⁴³ other higher education institutions, such as colleges. There are 7 gender studies centres¹⁴⁴. Students can choose between 7 gender study master programmes and there are 2 programmes on PhD-level.¹⁴⁵ Spain has 3 main research funding organisations: the Ministry of Economy and Competitiveness, the Centre of Industrial Technological Development and the Spanish Research Agency¹⁴⁶.

In 2010, the proportion of women in the highest research positions was below EU average, with 16.9 % (as well as in 2002, when the proportion was at 12.6 %) (She Figures 2012: 91). Further, Greece's Glass Ceiling Index is relatively high: 2.12 in 2010, which is above EU average and only a slight change to 2004, when it was at 2.35 (She Figures 2012: 96).

2. Actors in Gender Equality

The Ministry of Economics and Competitiveness (MINECO) comprises the Women and Science Unit, which is an important actor focusing on gender equality in Spain, along with Equality Units in all universities.¹⁴⁷

The Women and Science Unit is engaged in gender mainstreaming activities in science, technology and innovation, i.e. it promotes the presence of women in science and aims to eliminate gender bias, disincentives and barriers for women. Another aim of the unit is to include gender as a cross-cutting aspect in research, technological developments and innovation, and to promote research in gender and women's studies.¹⁴⁸ Equality Units in Spanish universities are responsible for the promotion of equality and the definition of areas for intervention.¹⁴⁹

Since 2011 offices for gender equality, as well as Gender Equality Plans are obligatory, as stated in the Spanish Act on Universities (LOMLOU) and the law of equality between women and men from 2007.¹⁵⁰

3. Framework

¹⁴² See http://www.mecd.gob.es/dms/mecd/educacion-mecd/areas-educacion/universidades/estadisticas-informes/datos-cifras/DATOS_CIFRAS_13_14.pdf.

¹⁴³ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/es/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 21, 2015).

¹⁴⁴ See <http://www.gender-studies.org/de/#esn>.

¹⁴⁵ See <http://www.gender-studies.org/de/#esn>.

¹⁴⁶ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/es/country?section=ResearchFundings&subsection=GovernmentAndRegionalAuthorities.

¹⁴⁷

<http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.26172fcf4eb029fa6ec7da6901432ea0/?vgnnextoid=e218c5aa16493210VgnVCM1000001d04140aRCRD>

¹⁴⁸ Ibid.

¹⁴⁹ <http://web.ua.es/es/unidad-igualdad/unidades-de-igualdad-universidades-espanolas.html>

¹⁵⁰ Template Spain, question 8 & 9, see also: <https://www.boe.es/boe/dias/2007/04/13/pdfs/A16241-16260.pdf>

Comment

Spain has detailed regulations for universities and the STI sector on gender equality, gender balance, gender equality units & gender equality plans. It has to be pointed out, that the incorporation of the gender dimension is also mandatory by law.

List of Legal Provisions

Organic Law on Universities (LOMLOU 4/2007):

- The creation of Equality Units in all universities
- The production of periodic reports on the applications of the principle of gender equality (Gender Equality Plans)
- The balanced representation of women and men (60%/ 40%) on all boards for elections, promotion and peer evaluation.

The 2011 Science, Technology and Innovation law:

- Balanced representation of women and men in the composition of bodies, advisory boards and committees regulated by this law as well as evaluation and selection committees of the Spanish System of Science and Technology
- The selection and evaluation procedures for research personnel employed by the Public Universities and Public Research Bodies of the general administration of the State and the procedures of conceding financial grants by research funders –will establish mechanisms in order to eliminate gender bias, to include – where possible – confidential mechanisms of evaluation – that impede evaluators to know personal characteristics of the evaluated person – in particular their gender or race.
- Public Research Bodies will adopt equality plans in a maximum period of two years after the publication of the law – which will be subject to annual monitoring. The said plans should include incentive measures for those centres to improve their gender indicators corresponding to annual monitoring.
- Incorporating the gender dimension. Consequently, some public research organizations have drawn up plans for gender equality including the gender dimension in research content, some of them already approved (see below).

Strategic Policy Instruments

The Spanish commitment to tackle gender inequalities by making gender equality a transversal goal, i.e. a mainstreaming approach of 1997 was reinforced by law amendments in 2007. Already in 1997, the first **Plan for Equal Opportunities between Men and Women** included the mandate to complement the principles of equal treatment and positive actions with mainstreaming. The amendments of 2007 strengthened the mainstreaming approach by including it into a binding norm as ‘basic principle of action for all public administrations’, including strategic directions, budgets and operations.

Three main strategies impact the situation of women and gender equality in science: the **Strategic Plan for Equal Opportunities** (2014-2016), the **Action Plan for Equal Opportunities in the Information**

Society (2014-2017) and the **Spanish Strategy of Science, Technology and Innovation** (2013-2020)¹⁵¹. The **Strategic Plan** defines specific objectives for the sphere of public research, i.e. strengthening gender studies and research through gendered perspectives; diminish the underrepresentation of women in the science labour market, making sex-disaggregated statistics available and developing gender sensitive tools for dissemination/communication. The **Strategic Plan** also specifies the operationalization of how these objectives shall be reached, namely by making use of gender impact assessments, gender training, disaggregating statistics by sex, and more recently making use of gender budgeting tools. Alongside the Strategic Plan, the **Action Plan for Equal Opportunities in the Information Society** more specifically aims at increasing the participation of women in ICT, including ICT skills and their role in ICT business, improving the correspondence of digital content and women’s interests.

The **Spanish Strategy of Science, Technology and Innovation** (2013-2020) defines five basic principles of which one is the **inclusion of the gender perspective in public RDI policies**. More specifically, the strategy recognises the issue of loss of human capital associated with the underrepresentation of women in scientific and technical research, in the public and business sector. In addition, the strategy foresees the consideration of gender in the content of research and innovations to enrich creativity and to better reflect societal needs, i.e. addressing global societal challenges. To some degree, the Spanish Strategy gears itself towards the **European Research Framework ‘Horizon2020’ and priorities of the European Research Area**. Monitoring and success indicators of the STI strategy do not refer to the participation of women or the consideration of gender in research and innovation outcomes.¹⁵²

4. Implementation Approach

Policies regarding gender equality in science are predominantly concentrated within the Strategy for Science, Technology and Innovation (EESTI) and under the Law of Science, Technology and Innovation (LCTI) in Spain.¹⁵³¹⁵⁴ FEMtalent¹⁵⁵, an initiative of the Network Science and Technology Parks of Catalonia (XPCAT), which promotes equal opportunities and women’s talent in the economy, business and innovation sector, is an additional policy measure in Spain.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
FEMtalent	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2

¹⁵¹

http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.7eeac5cd345b4f34f09dfd1001432ea0/?vgnnextoid=9d19453bb9a8c310VgnVCM1000001d04140aRCRD&lang_chosen=en

¹⁵²

http://www.idi.mineco.gob.es/stfls/MICINN/Investigacion/FICHEROS/Spanish_Strategy_Science_Technology.pdf

¹⁵³ For more information about the strategy, see section 3.

¹⁵⁴ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

¹⁵⁵ See <http://femtalent.cat/que-es/> (visited January 27, 2015).

Women and Science Commission (CSIC)	Individuals (1 & 2) & Organisations (3)	Women (2) & None specifically (3)	Missing	Missing	Career advancement Strategy for structural change	All
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FEMtalent is a policy instrument belonging both, to the ‘inclusion’ and ‘reversal’ model of gender equality in science; it focuses upon equal opportunities and access on the one hand, but targets women’s career advancement and women’s disadvantages or deficits on the other. The Women and Science Commission of the Spanish National Research Council (CSIC) has two main objectives, which are to study the possible causes hindering women from pursuing scientific careers and propose to the presidency possible measures to achieve equality between women and men within the CSIC¹⁵⁶. Given that Spain has so few policy measures concerning gender and science, it is not possible to evaluate a tendency for Spain overall. Generally, Spanish universities are obliged to design and adopt gender equality action plans.

¹⁵⁶ <http://www.csic.es/web/guest/composicion-comision-mujeres-y-ciencia>

Finland

1. Gender in Science Knowledge 'Input'

In Finland, there are 14 universities and 24 "Polytechnics".¹⁵⁷ 8 universities offer gender study programmes at different levels (BA, MA, doctoral) and with varying degree of integration into other programmes.¹⁵⁸ Between 1995 and 2015 a national graduate school in gender studies was funded by the Ministry of Education and Culture and the Academy of Finland. 9 universities have participated in the doctoral programme in its last period 2012-2015. Finland has 18 public research organisations¹⁵⁹ and 8 gender studies centres conducting research.¹⁶⁰ There are 2 public funding organisations.

The share of women in grade A positions in Finland is above the European average. In 2010, 24.2 % of all researchers in these positions were women (She Figures 2012: 91). This is also a notable increase since 2002, when the proportion of women in Finland was 19.9 % (She Figures 2012: 91). Accordingly, the Finnish Glass Ceiling Index stayed relatively low: it was 1.84 in 2004 and 1.71 in 2010 (She Figures 2012: 96).

2. Actors in Gender Equality

Even though the gender mainstreaming principle applies to all ministries and agencies in Finland, the actors focusing on gender equality in science and research especially are the **Ministry of Culture and Education** and the Academy of Finland, which is the national Research council organisation. The **Academy of Finland** is an agency within the administrative branch of the **Ministry of Education, Science and Culture**. The Academy functions as an important source of funding, mainly for university research, basic research, innovative applied research and the utilisation of research findings. The Academy closely cooperates with another key research funding agency, Tekes – **The Finnish Funding Agency for Technology and Innovation**¹⁶¹, an expert organisation for financing research, development and innovation in Finland, and supervises the administration of EU research programmes and international research organisations in Finland.¹⁶²

Regarding the fields of innovation and employment, the Ministry of Employment and Economy (MEE) is an important actor in gender equality. The MEE holds the general responsibility for entrepreneurship and innovation activities, regional development, the functioning of the labour market and for workers' employability.¹⁶³ There is little evidence on gender equality approaches in the field of innovation.

¹⁵⁷ See <http://minedu.fi/OPM/Koulutus/yliopistokoulutus/yliopistot/?lang=en> (visited January 12, 2015).

¹⁵⁸ See for more details about the programmes: <http://www.minna.fi/web/guest/linkkigalleria> (visited January 12, 2015).

¹⁵⁹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/finland/country?section=ResearchPerformers&subsection=PublicResearchOrganisation (visited January 21, 2015).

¹⁶⁰ See <http://www.minna.fi/web/guest/linkkigalleria> (visited January 12, 2015).

¹⁶¹ <http://www.tekes.fi/en/tekes/> (visited February 21, 2015)

¹⁶² http://minedu.fi/OPM/Tiede/tieteeseen_liittyviae_organisaatioita_ja_toimijoita/?lang=en and

<http://www.aka.fi/en-GB/A/Academy-of-Finland/>

¹⁶³ <https://www.tem.fi/en/ministry>

At the parliamentary and governmental level, there are several actors which explicitly are tasked with gender equality. The Parliament has a sub-committee on employment and equality issues¹⁶⁴. Governmental gender equality promotion is located in the **Ministry of Social Affairs and Health**, which comprises the **Gender Equality Unit, and the Council for Equality**. The Gender Equality Unit at the Ministry of Social Affairs and Health coordinates gender equality policies and plans legislative reforms thereof and is the representative of Finland at EU level for gender equality issues. The Finnish **Ombudsman for Equality** is an independent authority, located until 2015 in the Ministry of Social Affairs and Health, transferred since January 2015 in Ministry of Justice, and ensures the compliance with the Act on Equality between Women and Men and functions as a counsellor on matters concerning the Act. The **Equality Board** is an independent board of the Ministry of Social Affairs and Health that supervises compliance with the Gender Equality Act.¹⁶⁵ There is also a Non-Discrimination Ombudsman since January 2015, with a broadened task to ensure the compliance of the Non-Discrimination Act reformed in 2015. As a result of the reform, the Ombudsman for Minorities was replaced by a Non-Discrimination Ombudsman, which is empowered to consider a broader range of discrimination issues.¹⁶⁶

The equality planning duty was extended to comprehensive schools in 2015. The **Council for Equality** (TANE) established in 1972 is a permanent committee appointed by the Government for each parliamentary term. Its composition reflects the parliamentary power relations. The tasks of the Council are (according to the statute 389/2001) 1. monitor and promote the realization of gender equality in society, 2. make initiatives and give statements on legislation and other measures impacting gender equality, 3. facilitate collaboration between authorities, labour market organisations and other communities, 4. promote research on gender equality and utilization of research results, and 5. follow international developments in the field.¹⁶⁷

Minna - Centre for Gender Equality Information in Finland is a national cross-sectoral service provided by the National Institute for Health and Welfare (THL). The centre is based in the Child, Adolescent and Family Services Unit at THL. It publishes news, statistics, research links on gender equality, and keeps up an expert database on gender equality experts and researchers in the field of gender studies.¹⁶⁸

The Ministry of Education and Culture develops educational, cultural, science, sport and youth policies and cooperates internationally in these fields.¹⁶⁹ Key governmental research policy body is The Research and Innovation Council which gives advice on research, technology and innovation to the Finnish Government and its Ministries. The council is responsible for the strategic development and science and technology policy coordination. It is chaired by the Prime Minister and appointed for the duration of one Government term.¹⁷⁰ Gender issues have not been much addressed in its work.

¹⁶⁴ <http://web.eduskunta.fi/Resource.phx/parliament/committees/employment.htx>

¹⁶⁵ http://www.stm.fi/en/gender_equality/responsible_agencies

¹⁶⁶ http://www.oikeusministerio.fi/en/index/currentissues/tiedotteet/2014/12/uusiyhdenvertaisuuslakivoimaanen_sivuodenalusta.html, visited February 19, 2015

¹⁶⁷ <http://www.finlex.fi/fi/laki/alkup/2001/20010389>; template on Finland.

¹⁶⁸ <http://minna.fi>.

¹⁶⁹ <http://minedu.fi/OPM/?lang=en>

¹⁷⁰ http://minedu.fi/OPM/Tiede/tutkimus-_ja_innovaationeuvosto/?lang=en and http://minedu.fi/export/sites/default/OPM/Tiede/tutkimus-_ja_innovaationeuvosto/julkaisut/liitteet/Review2011-2015.pdf

Gender Equality Plans are based on equality legislation. However, offices for gender equality are not based on legal provisions; the law does not specify the organisational arrangements of equality promotion at workplace or institution level.

3. Framework

Comment

The Finnish legislation on gender equality and non-discrimination provides a strong basis for gender equality and Work-Life Balance in Higher Education, but there are no provisions specifically for the universities and higher education, e.g. on the implementation of gender equality officers. Equality Act has regulations on equal representation in public boards and committees which apply also to university boards and national research councils. How equality planning and promotion is in practice implemented in universities varies greatly. Equality officers often have shared duties including other issues. Despite of this, it is clear that Finnish universities have been at the forefront in equality planning in Finland, and engaged also in national networking, including annual gender equality conferences of universities¹⁷¹.

List of Legal Provisions

Constitution (7431/99): equal treatment, promotion of gender equality in societal activity and working life, especially in the determination of pay and the other terms of employment, as provided in more detail by an

Act on Gender Equality between Women and Men: forbids discrimination based on gender, gender identity and gender expression (extension in 2015). Includes regulations of equal representation in public committees and boards. Authorities, employers and education organisers have duty to actively promote gender equality. Gender equality plan: obligation of work-places with minimum 30 employees, and educational institutions, since 2015 also comprehensive schools, to draw up an annual gender equality plan involving staff and student representatives. With the aim of developing the operation of the educational institution, as a collaborative effort involving staff and student representative (not applicable to comprehensive schools). The Act includes provisions on the contents of these plans. Equality Ombudsman gives guidance on the contents of the plans. Negligence of the obligation is sanctioned.

Non-Discrimination Act: The Non-Discrimination Act (of 2004) was amended in December 2014. The new Act expands the scope of protection against discrimination. The Act will be applied to all public and private activities, excluding private life, family life and practice of religion. The protection against discrimination is equal regardless of whether the discrimination is based on ethnic origin, age, nationality, language, religion, belief, opinion, health, disability, sexual orientation or other personal characteristics. The obligation to promote equality is expanded to concern not only public authorities, but also education providers, educational institutes and employers. These are required to draw up a plan to promote equality. The obligation to draw up an equality plan concerns employers who regularly

¹⁷¹ Husu, Liisa: Women and universities in Finland: relative advances and continuing contradictions. pp. 89–111 in Mary Ann Danowitz Sagaria (eds.): *Gender Equality and University Change. Gender Equality in the European Union and the United States*. New York: Palgrave Macmillan 2007.

have a personnel of at least 30 employees. Public authorities, education providers and employers must, where necessary, make reasonable accommodations to ensure that employees with disabilities have equal access to services, work or education and training. Persons with disabilities must also have equal access to goods and services. The disability of a person must be taken into account in provision of services, for example, by arranging accessible passage for those who need it whenever possible.

Up to 2015, the possibilities for a discriminated person to get advice or legal aid have been different depending on the discrimination ground. There have also been differences in the supervision of compliance with non-discrimination legislation depending on the ground of discrimination. The former Ombudsman for Minorities only supervised compliance with the prohibition of discrimination on basis of ethnic origin, but the new Non-Discrimination Ombudsman supervises compliance with the Non-Discrimination Act with regard to all grounds of discrimination. Compliance with the provisions on equality in working life in individual cases will continue to be supervised by the occupational safety authorities. However, also the Non-Discrimination Ombudsman has duties and powers relating to equality in working life. The Ombudsman for Equality continues to supervise compliance with the Equality Act.

The National Discrimination Tribunal and the Equality Board are merged to create a new body. The mandate of the new Tribunal covers all discrimination grounds. The Tribunal may issue prohibition or obligation decisions and, by virtue of the Non-Discrimination Act, confirm a conciliation settlement between parties. To reinforce its prohibition or obligation decision, the Tribunal may also impose a conditional fine. The board does not supervise compliance with the Non-Discrimination Act in issues relating to working life.¹⁷²

Universities Act: no reference to gender equality

Extensive legal provisions for families, including parental leave & day care

Employment Contracts Act (55/2001) chapter 4 includes extensive regulations on parental leave, childcare leave up to when the child is 3 years old, temporary leave due to child's illness and right to return to work after childcare leave. These apply to all employees.¹⁷³

Day Care Act: subjective entitlement of children to day care and the responsibility of municipalities to arrange day care. After the parental leave period, right of parents place their child in public day care until the child starts school.

Policy Instruments

Gender Mainstreaming was introduced during the 1990s and was incorporated as the central concept in the governmental **Action Plan for Gender Equality** (1997-1999). According to the principles of mainstreaming gender, each ministry takes responsibility for specific measures and programmes inside their remit of strategic, budgeting and operational competencies, including governmental agencies.

¹⁷²

<http://www.oikeusministerio.fi/en/index/currentissues/tiedotteet/2014/12/uusiyhdenvertaisuuslakivoimaanensiv uodenalusta.html>, visited February 19, 2015

¹⁷³ Employment Contracts Act <http://www.finlex.fi/en/laki/kaannokset/2001/en20010055.pdf>

Employers and institutions of higher education are obliged under the Equality Act to draw up equality plans for promoting gender equality.

The former national **Gender Mainstreaming Development Programme VALTAVA** (2007-2013) was coordinated by the Ministry of Employment and Economy and co-funded through the European Social Funds.¹⁷⁴ Information about current strategies or work programmes has not been available.

The **Education and Research Development Plan 2011-2016** of the Ministry of Education and Culture mentions the minimisation of gender differences in learning outcomes, participation in education and in the competition of studies as policy objectives, along with the aim to lessen the effects of social-economic background.¹⁷⁵ Accordingly, an Action Programme to promote Equal opportunity in education is envisaged (document/reference??).

In 2012 the Finnish Government approved the **Gender Equality Programme (2012-2015)** which continues to emphasise issues relating to working life, education, prevention of violence against women and decision-making.

Specific indicators to index gender equality in education and research labour are not developed but sex-disaggregation of statistics is the standard, and specific compilations of gender equality statistics have been regularly published by Statistics Finland¹⁷⁶. The **Gender Equality Barometer** (Ministry of Social Affairs and Health), which was originally an initiative by the Council for Equality, reports on the attitudes and views on the overall development of gender equality in Finland. The latest Barometer was published in 2013¹⁷⁷. Sex-disaggregated statistics on student population and degrees as well as academic staff is available at Statistics Finland, while the Academy of Finland monitors success rates in funding and gender balance in their review processes.

Finnish policy actors in the field of gender equality work together closely within other Nordic countries in form of the governmental co-operation in the frame of Nordic Council of Ministers, within the '**Nordic Gender Equality Cooperation**' which **agrees on common priority areas** in specific timeframes, e.g. for the period 2011-2014 on gender equality in the labour market, education, issues relating to intersectionality and gender-based violence, e.g. by collecting best practice policies. For the upcoming period 2015-2018, an extension of the Nordic Cooperation to the Baltic States is foreseen and will prioritize equality in the labour market, in education, equality in public spaces and the media and gender-related violence.¹⁷⁸ Collaboration with North-West Russia is also envisaged in this period 2015-2018, specifically on issues relating to gender-related violence and trainings in gender equality. In research, there is also a joint Nordic body Nordforsk, within the Nordic Council of Ministers, that provides funding for Nordic research cooperation as well as advice and input on Nordic research

¹⁷⁴ www.tem.fi/en/ministry/gender_equality/development_programme_valtava

¹⁷⁵ <http://minedu.fi/export/sites/default/OPM/Julkaisut/2012/liitteet/okm03.pdf?lang=en>

¹⁷⁶ http://www.stat.fi/tup/julkaisut/tiedostot/julkaisuuttelo/yyti_womefi_201400_2014_10368_net.pdf, accessed February 18, 2015.

¹⁷⁷ http://www.stm.fi/c/document_library/get_file?folderId=6511564&name=DLFE-29043.pdf, accessed February 20, 2015.

¹⁷⁸ <http://www.nikk.no/en/nordic-cooperation/prioritisations/>

policy.¹⁷⁹ Within Nordic research collaboration, gender has been also addressed, such as in the joint 5-year research programme on gender and violence in the early 2000s.¹⁸⁰

4. Implementation Approach

Finnish gender equality policy has traditionally been focused upon the labour market and working life issues. Still, there are policies directly build for gender equality in science. Universities are under the obligation to draw up annual gender equality plans covering a wide range of gender equality issues, and have been at the forefront of gender equality planning. The University of Helsinki's equality and diversity plan, for example, promotes gender studies and gender research by ensuring the resources for the continuity and versatility of research and teaching in gender studies and considers gender (equality) in teaching and studies (e.g. grades and other study results are monitored by gender) amongst other issues.¹⁸¹ The Ombudsman for Equality provides guidelines on how to draw up an operational equality plan.¹⁸² As early as in the late 1980s the Equality Ombudsman issued guidelines to universities on how to promote gender equality¹⁸³. The Academy of Finland designed its first Gender Equality Plan in 2000, and has updated it since. The current equality plan, which includes several specific measures, as the Academy's four Research councils and Board's obligation to monitor progress of gender equality in connection with their decisions on research funding or the option to extend a funding period due to maternity, paternity, parental or childcare of a researcher.¹⁸⁴ On the basis of this equality plan, an Equality Working Group must be established to monitor the implementation of the measures set in the Equality Plan and to annually assess the need for updates of the plan.¹⁸⁵

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Equality Ombudsman's guidelines on equality planning for educational institutions	Organisations (3)	None specifically (3)	Not applicable	Annual with 30+ employees	Strategy for structural change	3
Equality and diversity plans of universities	Individuals & Organisations (all)	None specifically (3)	Yes	Annual	Strategy for structural change	3
Equality plan of the Academy of Finland (2014-2016)	Individuals & Organisations (all)	None specifically (3)	Yes	2 years	Strategy for structural change	3

¹⁷⁹ <http://www.nordforsk.org/en>

¹⁸⁰ <http://www.nordforsk.org/en/news/final-report-from-gender-and-violence-programme-302>

¹⁸¹ See http://www.helsinki.fi/henkos/tasa-arvo/equality_and_diversity-plan.htm#1 (visited January 29, 2015).

¹⁸² See http://www.tasa-arvo.fi/en/promoting_equality/education/draw_up (visited January 29, 2015).

¹⁸³ Husu, Liisa: Women and universities in Finland: relative advances and continuing contradictions. pp. 89–111 in Mary Ann Danowitz Sagaria (eds.): Gender Equality and University Change. Gender Equality in the European Union and the United States. New York: Palgrave Macmillan 2007.

¹⁸⁴ See http://www.aka.fi/Tiedostot/Tiedostot/Liitetiedostot/Tasa-arvosuunnitelma%201213_en.pdf.

¹⁸⁵ See http://www.aka.fi/Tiedostot/Tiedostot/Liitetiedostot/Tasa-arvosuunnitelma%201213_en.pdf.

Although Finland appears to have few career advancement-measures aiming at gender equality in research, programmes and provisions at the national level indicate the existence of the 'transformation'-model as a framework. The equality plans list objectives and measures that target the organisations as subject to change, rather than individuals.

France

1. Gender in Science Knowledge 'Input'

France has a rich landscape of higher education institutions: there are 90 universities, 86 public universities and 'grandes écoles'¹⁸⁶ and 14 private universities¹⁸⁷. There are 3 gender study programmes in France¹⁸⁸. The most important research performing organisation is the Centre for Scientific Research (CNRS), which is subdivided in many research departments and employed 33.300 people in 2012¹⁸⁹. France has 8 gender studies centres¹⁹⁰, with the Association Nationale des Études Féministes (ANEF)¹⁹¹ being nationwide and one of the most important ones. Furthermore, there are 3 main research funding institutions.¹⁹²

In 2009, 18.7 % of academic staff in grade A research positions in France were women (17.3 % in 2002) (She Figures 2012: 91). The Glass Ceiling Index for France slightly decreased from 1.81 in 2004 to 1.78 in 2009 (She Figures 2012: 96).

2. Actors in Gender Equality

The main actors in gender equality in France are the Mission de la Parité et de la Lutte contre les Discriminations (MIPADI), the units for women in science at the National Center for Scientific Research (CNRS) and the Conférence Permanente des Chargées de Mission Egalité et Diversité de l'Enseignement Supérieur (CPRD).¹⁹³

The Mission de la Parité et de la Lutte contre les Discriminations (MIPADI), promotes gender equality in science.¹⁹⁴ The Units for women in science at the National Center for Scientific Research (CNRS) are focusing on women since the year 2001. CNRS initiated an operational structure to foster gender equality as the first public research institution in France and aims to promote full participation of women in science. The gender equality office of the CNRS (*Mission pour la place des femmes au CNRS*) reports to the President of the CNRS.¹⁹⁵

¹⁸⁶ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/fr/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

¹⁸⁷ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/fr/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 21, 2015).

¹⁸⁸ See <http://www.gender-studies.org/en/#fr>.

¹⁸⁹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/fr/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

¹⁹⁰ See <http://www.gender-studies.org/en/#fr>.

¹⁹¹ See <http://www.anef.org/>.

¹⁹² See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/fr/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

¹⁹³ Benchmarking Policy Measures 2008, p. 67; http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

¹⁹⁴ <http://www.enseignementsup-recherche.gouv.fr/cid56806/la-mission-de-la-parite-et-de-la-lutte-contre-les-discriminations.html>

¹⁹⁵ The Researchers' Report 2013, p. 6

The Conférence Permanente des Chargées de Mission Egalité et Diversité de l'Enseignement Supérieur (CPRD) is a network of 37 universities. The network serves to exchange best practices, especially in human resource management, and was founded by the University of Strasbourg as a permanent incorporation of equality and diversity officers actively involved in higher education and research.¹⁹⁶

The Ministry of higher Education and Research developed a national gender action plan in 2013. In the framework of this action plan, the Ministry introduced gender provisions included in contracts between the Ministry and higher education or research institutions. The contracts are renewed every five years and include assignments and concrete objectives in gender equality.¹⁹⁷ **“The Charter for Equality of Women and Men – Charte pour l'Égalité Femmes-Hommes**, is non-binding but institutions of higher education are asked to adopt it.”¹⁹⁸

3. Framework

Comment

The number of mandatory provisions on gender equality for Higher Education and research institutions is limited, but there are regulations on the prevention of violence and harassment against women as well as regulations on education, e.g. the support of gender research. France has a fixed quota regulating the gender balance in public committees based on the Law of March 2012.¹⁹⁹

List of Legal Provisions

Law of March 12, 2012: Le volet égalité professionnelle hommes-femmes dans la loi du 12 mars 2012: Targets for committees and boards do not apply to the administrations of universities or higher education and research institutions yet²⁰⁰, but will be also included in a forthcoming revision of the law on research.

Décret no 2012-601 du 30 avril 2012 relatif aux modalités de nominations équilibrées dans l'encadrement supérieur de la fonction publique: This decree regulates the fixed quota & successive gender balancing of public committees in France to reach 40 % of the underrepresented sex until 2018.

Act on higher education and research 2013, Art. 13, 37, 50, 53: gender equality in governance bodies of universities and other higher education organisations; promotion of education on gender equality in all streams of higher education; preventive actions against violence against women and sexual harassment; support of gender research in priority areas of research programming.

Policy Instruments

During the first decade of the second millennium, gender mainstreaming plans launched a small number of symbolic reforms without significant impact. Yet, in 2012 and 2013 France made giant leaps in

¹⁹⁶ Ibid.

¹⁹⁷ http://ec.europa.eu/euraxess/pdf/research_policies/country_files/France_Country_Profile_RR2013_FINAL.pdf

¹⁹⁸ [http://cache.media.enseignementsup-](http://cache.media.enseignementsup-recherche.gouv.fr/file/Charte_egalite_femmes_hommes/90/2/chartes_dossier_couv_239902.pdf)

[recherche.gouv.fr/file/Charte_egalite_femmes_hommes/90/2/chartes_dossier_couv_239902.pdf](http://cache.media.enseignementsup-recherche.gouv.fr/file/Charte_egalite_femmes_hommes/90/2/chartes_dossier_couv_239902.pdf)

¹⁹⁹ For more details see section 3.

²⁰⁰ The ministry Gender Action Plan (GAP) extends the financial penalties to Higher Education and Research governance as well.

support of professional equality of women and men in the French research system: through passage of the *Sauvadet* law²⁰¹ on gender balance in public juries and committees, the 2013 **Action Plan for Equality between Women and Men** of the Ministry for Higher Education and Research.²⁰² Universities and the Ministry of Higher Education agree on gender-related objectives every five years in form of a contract. The national gender action plan encompasses three key objectives, launch of a contractual dialogue with the universities, ensuring equality in academic institutions and support of gender research. In addition the **Charter for Equality between Women and Men in Higher Education and Research Institutions**²⁰³ of the Ministry for Higher Education and Research together with the Ministry for Women's rights was established, which prioritises gender sensitive communication, sex-disaggregation of statistics, support to awareness-raising and prevention of violence against women; the **Protocole d'accord relatif à l'égalité professionnelle entre les femmes et les hommes dans la fonction publique**²⁰⁴ and the respective enforcement circular²⁰⁵; as well as the *Décret n° 2013-1313 du 27 décembre 2013 relatif au rapport annuel sur l'égalité professionnelle entre les femmes et les hommes dans la fonction publique*²⁰⁶.

At the level of research institutions, CNRS instituted the **Mission pour la place des femmes au CNRS** ('Mission for the Place of Women at CNRS', MPDF) at CNRS headquarters, directly attached to the highest level of CNRS governance, in 2001. Since 2011 CNRS actively created and instituted a gender equality concept, gender trainings, and gender in research content and in the Centre's communication materials.

Indicators of monitoring the progress towards legal and policy objectives cover sex-disaggregated staff statistics, including women in leading and decision-making (based upon the quota-regulation in selection committees and juries).

4. Implementation Approach

In addition, in 2012 the Ministry of Higher Education and Research implemented the **National Gender Action Plan**, which includes 40 measures (e.g. promotion of research on gender in the academies).²⁰⁷

²⁰¹ Cf. Loi n° 2012-347 du 12 mars 2012 (Loi Sauvadet).

²⁰² Cf. Plan d'action du ministère de l'Enseignement supérieur et de la Recherche, http://cache.media.education.gouv.fr/file/Espace_Europeen_de_la_Recherche_-_E.E.R./13/0/plan_action_Egalite_274130.pdf.

²⁰³ The charter was signed by the two ministers and the heads of the three conferences of university presidents, presidents of the engineering schools and the 'great schools' in January 2013. Cf. http://cache.media.education.gouv.fr/file/Espace_Europeen_de_la_Recherche_-_E.E.R./12/7/charte_Egalite-dossier_274127.pdf.

²⁰⁴ Cf. Protocole d'accord relatif à l'égalité professionnelle entre les femmes et les hommes dans la fonction publique (March 8th, 2013), <http://www.fonction-publique.gouv.fr/fonction-publique/la-modernisation-de-la-fonction-publique>.

²⁰⁵ Cf. Circulaire du 8 juillet 2013 relative à la mise en oeuvre du protocole d'accord du 8 mars 2013 relatif à l'égalité professionnelle entre les femmes et les hommes dans la fonction publique (July 8th, 2013), http://circulaire.legifrance.gouv.fr/pdf/2013/07/cir_37266.pdf.

²⁰⁶ Cf. Décret n° 2013-1313 du 27 décembre 2013 relatif au rapport annuel sur l'égalité professionnelle entre les femmes et les hommes dans la fonction publique, <http://www.legifrance.gouv.fr/affichTexte.do;jsessionid=?cidTexte=JORFTEXT000028409980&dateTexte=&oldAction=dernierJO&categorieLien=id>.

²⁰⁷ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf for more information.

Some soft measures are set-up as well, such as the Dual Career Network. The network welcomes couples, helps them search jobs within the same geographic area and assists with accommodation and child care, thereby seeking to improve the work-life-balance of the researchers.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
La parité dans les métiers du CNRS – Bilan social (Annual report)	Organisations (3)	Women & Men (1)	Missing	Missing	Strategy for structural change Awareness raising	3 & 1
Fixed quotas (comes into force 2018)	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Charter for gender equality between Ministry of Research and Conference of rectors and head of schools of engineers, 2013	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change Awareness raising	3
Action Plan on equality (2012)	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Dual Career Network	Individuals (1&2)	Women & men (1)	Missing	Missing	Work-Life-Balance	More 1

Agreements on Professional Equality between Men and Women (<i>Accords sur l'Égalité Professionnelle entre les Hommes et les Femmes à l'IFREMER</i>) (2008-2011)	Organisations (3)	Women & men (1)	Missing	Missing	Work-Life-Balance	3 & 1
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The fixed quota and the National Action Plan are strategies for to operationalise institutional and cultural change in universities and research establishments; they target organisations rather than individuals and include a gender dimension rather than specifically addressing women or men. The Dual Career Network belongs to the 'inclusion'-model of gender equality strategies, it focuses upon individuals and equal access of men and women. Overall, the existence of instruments such as quotas or action plans indicates a transformative gender equality concept in France – yet, there are not many policies in the field of gender and science.

Greece

1. Gender in Science Knowledge 'Input'

In 2013, there were 24 public universities, 28 private universities of various types and 16 Technology Educational Institutes in Greece²⁰⁸. Greece has 10 gender study programmes²⁰⁹. In contrast to the 56 non-university research institutions in Greece²¹⁰, only 2 gender studies research centers exist. The main funder is the General Secretariat of Research Technology, but there are no explicit policies to foster institutional change by the funding agencies and no specific initiatives to strengthen gender aspects in research.^{211 212}

2. Actors in Gender Equality

The research system in Greece is managed by the Ministry of Education and Religion / Ministry of Competitiveness, while Gender Equality is dealt with by the Ministry of Labour Social Protection and Welfare.²¹³ The actors focusing on gender equality in Greece are the Research Centre for Gender Equality (KETHI), the General Secretariat for Gender Equality (GSGE) of the Ministry of Interior and the Greek Ombudsman (GO).

The Research Centre for Gender Equality (KETHI) was founded in 1994 and is a legal entity which operates under private law. The Centre is funded by the General Secretariat for Gender Equality (GSGE) of the Ministry of Interior. KETHI conducts social research on gender equality and aims to improve women's participation and women's "advancement in all areas of political, economic and social life, within the framework of the policies defined by the General Secretariat for Gender Equality"²¹⁴.

The General Secretariat for Gender Equality (GSGE) is a governmental agency reporting to the Ministry of Interior. GSGE is responsible for the planning, implementation and monitoring of policies on gender equality. Through the Coordination, Managing and Implementation Authority for co-funded actions of the Ministry of Interior the GSGE implements actions and co-financed programmes.²¹⁵

The stakeholder of the Greek Ombudsman (GO) is the Department of Gender Equality, the national Gender Equality Body. The GO is a "constitutionally sanctioned independent authority"²¹⁶ and mediates between citizens and the public administration. It provides services for citizens, in order for them to exercise their rights in terms of gender equality and discrimination on the grounds of religious belief, race or disability in the public and the private sector. The GO is responsible for the implementation of

²⁰⁸ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/gr/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 21, 2015).

²⁰⁹ See <http://www.gender-studies.org/en/#gr>

²¹⁰ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/gr/country?section=ResearchPerformers&subsection=PublicResearchOrganisation (visited January 21, 2015).

²¹¹ Cf. http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

²¹² There are no data available for Greece's proportion of women in grade A positions and therefore no Glass Ceiling Index for Greece in the She Figures report 2012.

²¹³ Template Greece, question 4a

²¹⁴ <http://eige.europa.eu/content/research-centre-for-gender-equality-kethi>

²¹⁵ <http://www.isotita.gr/en/>

²¹⁶ <http://eige.europa.eu/content/the-greek-ombudsman-go-the-gender-equality-department>

the legislation together with the Equal Treatment Committee of the Ministry of Justice and the Labour Inspectorate of the Ministry of Labour.²¹⁷

3. Framework

Comment

The Greek legislation provides gender equality and anti-discrimination protection based on EU-Directives, especially in employment. The rights of parents are guaranteed. The only specific provision for Higher Education and research institutions refers to gender representation of one third in all decision making bodies. Gender Equality plans are not based on legislative provisions. Likewise, offices for gender equality are not based on legal provisions.

List of Legal Provisions

Constitution 1975: equal pay

Law 1414/84: gender equality in employment relations , anti-of discrimination; opportunities for the integration of women in the labour market through participation in training programmes; protection against displacement for maternity reasons. Applicable for private sector employees, the self-employed and those who provide independent services. Not applicable for Public sector employees.

EU-Directives adopted: 86/378 (replaced by Recast Directive 2006/54EC) ; 86/613 on equality in social security, 92/85 on social and health security of pregnant women, 96/34 on parental leave and 97/81 on part-time work.

Law 3488/2006 and harmonisation with Directives 2000/78 and 2004/113 on sexual harassment and equality in access to goods and services. They promote equal treatment between men and women in access to employment and in employment relations, as well as defining and tackling sexual harassment in the workplace.

Law 2839/2000: requirement of the representation of at least one third of each sex in all decision-making bodies, including those in Higher education.

Law 3250/2004: offering the possibility of employment of mothers with underage children at a 10% quota in positions of part time employment in the public sector, legal entities operating under public law, as well as in organizations of local government, in services of a social character.

Law 3896/2010: prohibition of gender discrimination in employment. Specifically, it covers issues such as equal pay, equal treatment by social security and equal access to employment and opportunities for professional development between men and women.

Law 4075/2012: Regulation on parental leaves, specifies minimal Length, payments, etc.; Paid maternity leave is 119 days for women, 2 days for men. Unpaid parental leave is 240 days. Maternity benefits are paid by government; paternity leave is paid by the employer.

²¹⁷ <http://eige.europa.eu/internal/csr/view/20060?destination=internal%2Fcsr%2Fsearch%2F12>

Law 4097/2012: application of equal treatment of women and men in self-employment in harmonisation with the 2010/41/EU Directive.

Policy Instruments

In Greece gender inequality in science is treated as part of wider regulations for equality in the labour market. In 2010, the **National Programme for Substantive Gender Equality 2010-2013** was launched in order to promote gender mainstreaming as strategic goal in central and regional policies and to decrease any gender gaps in the target population of these policies. The National Programme constitutes the sole central strategic orientation and prioritises three areas: violence against women; gender mainstreaming in public policies, including the promotion of the ‘European Charter for Equality of Women and Men in Local Life’; and the promotion of gender equality in culture and arts.²¹⁸

Specific strategic orientation for equality in research or gender studies is not available. Also information about instruments to operationalise equality-related objectives in science is absent; except the quota regulation for recruitments to national agencies.

Information about indicators or monitoring mechanisms is unavailable.

4. Implementation Approach

In Greece, there are no explicit policies or instruments to achieve cultural and institutional change on gender in the research sector, other than a quota to guarantee that at least one third of decision-making bodies have to consist of the under-represented gender. There are, furthermore, no specific measures to include and strengthen the gender dimension in research programmes.²¹⁹ However, the Greek legislation covers the issue of gender imbalance, also in the research sector. The National Programme for Gender Equality, for example, aims to provide the legal basis for provisions of equal opportunities in the labour market, to integrate gender mainstreaming in public policies and to create new monitoring mechanisms for public policies regarding gender.²²⁰

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Quota of 1/3 of each sex in decision-making bodies (Law 2839/2000)	Organisations (3)	None specifically (3)	Missing	Missing	Structural change	3
1/3 Quota for each sex for scientists' recruitment to national agencies	Organisations (3)	None specifically (3)	Missing	Missing	Structural Change	3

²¹⁸ www.isotita.gr

²¹⁹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

²²⁰ See <http://www.isotita.gr/en/index.php/docs/c83/> (visited January 26, 2015).

and committees for Research and Technology (Law 3653/2008, article 57)						
Education and Initial Vocational Training 'EPEAK'	Individuals (1 & 2)	Women (2)	Missing	Missing		2
National Programme for Gender Equality (2010-2013)	Organisations (3)	Women (2) & none specifically (3)	Process oriented indicators (3)	3 years (1)	Structural change	3

Both of the quota instruments, as well as the National Programme for Gender Equality, belong to the transformative model of gender policies, as they aim at cultural and institutional change. The 'EPEAK' programme can be allocated to the 'reversal-model', as it focuses upon women and special training for them to out-balance alleged disadvantages. However, the majority of these instruments are not specifically designed for the research sector, but rather for the labour market in general.

Croatia

1. Gender in Science Knowledge 'Input'

There are currently 7 public universities, 16 public "Polytechnics" and colleges and 28 private higher education institutions in Croatia.²²¹ One university offers a gender study programme. Croatia has 99 public research organisations; however, there are 3 gender studies centres. The Ministry of Science, Education and Sports²²² and the Croatian Science Foundation²²³ are the main research funding bodies.²²⁴

In 2010, 26.4 % of researchers in grade A positions were women in Croatia (26.2 % in 2002), which is the fourth highest share of women in these positions among the EU (and associated) countries and significantly above EU-27 average (She Figures 2012: 91). In accord with this high proportion, Croatia's Glass Ceiling Index – 1.51 in 2010 – is quite low and far below EU-27 average (She Figures 2012: 96). The Glass Ceiling Index remains as constant as the proportion of women in highest academic positions and did not change significantly within the last years (see She Figures 2012: 96).

2. Actors in Gender Equality

The Ministry of Science, Education and Sport (MSES) holds the responsibility for the entire science and education system in Croatia. It is the central government body for education of the Government of the Republic of Croatia.²²⁵

Article 3 of the Croatian constitution places gender equality among the highest principles of the constitutional order.²²⁶ The **Ombudsperson for Gender Equality** acts in the framework of the Anti-discrimination Act, which was passed by the Croatian Parliament in 2008²²⁷, and functions as the central body for equal treatment and against discrimination.²²⁸

The Ordinance on the **Office for Gender Equality** regards science peripherally, as it prescribes the scope of work of the Office by calling on them to conduct research on gender in cooperation with research organisations.²²⁹

3. Framework

Comment

²²¹ See for more details: <http://public.mzos.hr/Default.aspx?art=5864&sec=2510> (visited January 12, 2015).

²²² For more information see <http://public.mzos.hr/Default.aspx?sec=2428> (visited January 21, 2015).

²²³ For more information see <http://www.hrzz.hr/default.aspx?id=47> (visited January 21, 2015).

²²⁴ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/hr/country?section=Overview&subsection=StrResearchSystem (visited January 21, 2015).

²²⁵

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/hr/country?section=Overview&subsection=StrResearchSystem

²²⁶ http://www.europarl.europa.eu/RegData/etudes/note/join/2013/493016/IPOL-FEMM_NT%282013%29493016_EN.pdf

²²⁷ http://www.minoritycentre.org/sites/default/files/antidiscrimination_law_croatia.pdf

²²⁸ <http://www.non-discrimination.net/content/equality-bodies-25>

²²⁹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

Gender equality and non-discrimination in research are promoted by several laws, also in Higher Education. More specific provisions do not exist.

List of Legal Provisions

Constitution: gender equality and non-discrimination in research

Act on Scientific Activity and Higher Education: gender equality and non-discrimination in research

Labour Act: gender equality and non-discrimination in research

Gender Equality Act: gender equality and non-discrimination in research

Act on Prohibition of Discrimination: gender equality and non-discrimination in research

Criminal Code: punishment of crimes against sexual autonomy

Policy Instruments

In preparation of the accession to EU, Croatia committed to mainstream gender in 2011. The '**4th National Policy for Gender Equality**' specifies priorities for the period 2011-2015 along the thematic lines of the Beijing Platform for Action and as regards the management of their implementation: promotion of human rights and rights of women, developing equal opportunities in the labour market, gender sensitive education, gender balance in political decision-making, elimination of violence against women, international cooperation in this field and enhancing institutional implementation.

In addition to the overarching national policy the '**Action Plan Science and Society**' was presented by the Ministry of Science, Education and Sports in 2012 and comprises four thematic areas, including socially responsible science. The action plan proposes a gender balance target of 30% women in national councils, committees and scientific and political bodies and emphasises the need to increase awareness on gender inequalities.

Orientation of the national action plan's priorities clearly derives from European policies and funding programmes in this field.

Information about indicators or monitoring mechanisms is unavailable

4. Implementation Approach

Croatia shows progress of setting up policies regarding women's rights and general gender equality (Croatia is for example one of the few countries having a Gender Equality Ombudswoman)²³⁰, in the research area however, not many policies exist. The key implementation instrument is the Action plan Science and Society adopted in 2012 (see section 3). The National Policy for Gender Equality 2011-2015 includes science only insofar that it requires the inclusion of a gender dimension in all policy areas. A specific measure in the field of gender and science is the L'Oreal and UNESCO national scholarship 'For

²³⁰ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

Women in Science’, which provides financial support for women researchers under the age of 35 who are in their last PhD-phase in the natural sciences.²³¹

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
National Policy for Gender Equality 2011-2015	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
National scholarship programme ‘For Women in Science’ of the L’Oreal Adria and Croatian Commission for UNESCO (2012)	Individuals (1 & 2)	Women (2)	None (1)	Missing		2 & 1
Action plan Science and Society (2012)	Organisations (3)	Women (2)	None (1)	Missing	Strategy for structural change	all

The National Policy for Gender Equality and the Ordinance for Gender Equality target organisations and aim for structural change, and can thus be allocated to the transformative model. However, both derive from the progress made in the field of general gender equality and gender equality in science is not explicitly issued. The L’Oreal-UNESCO scholarship and the Action Plan Science and Society cannot be classified as transformative action – even though the Action plan targets organisations, the sections issuing gender equality focus upon the “professional inferiority of female researchers in scientific progress, acknowledgements and awards”²³², thereby reducing gender equality in research to women’s deficits. Based on these approaches, Croatia, showing tendencies of all three models but very little action in the research policy area overall.

²³¹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

²³² See the short-version of the Action Plan in English:

http://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCMQFjAA&url=http%3A%2F%2Fpubblic.mzos.hr%2Ffsg.axd%3Fid%3D19495&ei=oVrHVLtZEcjuUvezgOAP&usg=AFQjCNGfVnui44vVKgFRbaukJy25-J-P_w&bvm=bv.84349003,d.d24&cad=rja (visited January 27, 2015).

Hungary

1. Gender in Science Knowledge 'Input'

In Hungary, in comparison to 62 non-university research institutions, research on gender appears rather marginal – only a single gender studies centre exists²³³. In the academic year 2013/2014, there are 19²³⁴ public and 7 private universities operating in Hungary, as well as 41 colleges²³⁵. Out of these higher education institutions, only one university has gender study degree programmes²³⁶; however, the Central European University in Budapest offers a 1- and 2-years Master degree, a European Master and a PhD programme²³⁷. There are three main research funding organisations.²³⁸

The proportion of women in the highest research positions in Hungary increased from 13.6 % in 2002 to 20.6 % in 2010 (She Figures 2012: 91). Hungary's Glass Ceiling Index was 2.34 in 2004 and 1.76 in 2010 (She Figures 2012: 96).

2. Actors in Gender Equality

In Hungary the **Directorate of Gender Equality** is the governmental body responsible for mainstreaming and implementing policy on gender equality. It has also set up the first action plan for the implementation of the objectives of the national strategy.²³⁹

The **Minister for National Economy** has appointed a ministerial commissioner for a 12-month period responsible for the mapping out of issues which set back women's employment and for making recommendations regarding these issues. The **Department for Equal Opportunity** and the **Department for Family Policy** both carry out tasks related to equal opportunities between women and men. The **Hungarian Women's Alliance** (women's umbrella organisation) cooperates with the Minister for National Economy and makes recommendations to the government and consists of 16 organisations, which – together with the Population Round Table (NGO members and experts) – make up the Network of Family, Opportunity Creating and Volunteer Houses.²⁴⁰ The Office for National Economic Planning reports directly to the Minister for National Economy and is an independent organisation in terms of financing and functioning.²⁴¹

The **Council for Social Equality among Women and Men** reports directly to the Ministry for Public Administration and Justice. The Council for Family Affairs and Population has also been created by the

²³³ See <http://regender.org/intl-centers-for-research-on-women> (visited January 21, 2015).

²³⁴ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/hu/country?section=ResearchPerformers&subsection=HigherEducationInstitutions.

²³⁵ See http://www.oktatas.hu/felsooktatas/felsooktatasi_intezmenyek/allamilag_elismert_felsookt_int.

²³⁶ See <http://gender-studies.org/en/#hu>.

²³⁷ See <https://gender.ceu.hu/node/18300>.

²³⁸ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/hu/country?section=ResearchFundings&subsection=GovernmentAndRegionalAuthority.

²³⁹ <http://eige.europa.eu/content/gender-equality-index#/country/HU>

²⁴⁰ <http://eige.europa.eu/content/gender-equality-index#/country/HU>

²⁴¹ <https://www.nth.gov.hu/en/the-office/introduction-of-the-office>

government and operates independently of the Council of Women and Men. However, it is being supported by other organisations.²⁴²

In Hungary Gender Equality plans are not based on legislative provision. Gender quotas are being discussed, but have not been introduced, yet.

3. Framework

Comment

The legislation provides a minimum of gender equality and anti-discrimination protection, but there are hardly any provisions regarding employment in general and the Higher Education sector in particular.

List of Legal Provisions

Fundamental Law (2011): gender equality, prohibition of discrimination on the basis of gender

Penal Code: prohibition of discrimination

Labour Code: prohibiting of discrimination; restoration of the same position after maternity leave is *no* longer safeguarded

Act CXXV of 2003 on Equal Treatment and the Promotion of Equality of Opportunities: framework against discrimination; specification of about 20 groups of people to be protected, among these, women and mothers (separately). It defines the concept of discrimination, names indirect discrimination

Policy Instruments

The **National Strategy for the promotion of Gender Equality - Guidelines and Objectives 2010-2021**, and the corresponding first **action plan 2010-2011** outline the current objectives of the Hungarian government. These include: accomplishing economic independence of women and men; improving reconciliation of professional and private life; reducing gender imbalance in political, economic and research decision-making. The strategy effects both the private and public sector and calls for the preparation of equal opportunity plans as well as for an increase of women in leading positions by one third until 2021. A revision of the Strategy is in preparation.

Most Hungarian universities developed general, non-exhaustive equal opportunity plans.²⁴³ Also the Hungarian Academy of Sciences (HAS) developed an **equal opportunity framework plan 2012** focussing on work-life balance of researchers and women with care responsibilities. This is supported through a funding instrument of the Academy.

In addition to the National Strategy, a **Cooperation Agreement** was signed between the National Innovation Office and the Woman in Science Association in 2014 with the objective to examine the gender dimension in science and research (content).

Information about indicators or monitoring mechanisms is unavailable

²⁴² <http://eige.europa.eu/content/gender-equality-index#/country/HU>

²⁴³

http://ec.europa.eu/euraxess/pdf/research_policies/country_files/Hungary_Country_Profile_RR2013_FINAL.pdf

4. Implementation Approach

There are only a few policy measures on gender equality in the research area and no specific provisions, such as quotas. While the positions of women on maternity leave is no longer guaranteed under the new Labour Code in Hungary, the Hungarian Academy of Sciences (MTA) introduced the **framework programme for equal opportunities** in 2012 that allows for women researchers with children under 10 years old to apply for grants over two years of age limit compared to men.²⁴⁴ Both, the L’Oreal-UNESCO grant and the Prize from the Hungarian Academy of Sciences provide special support for women researchers.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Prize from the Hungarian Academy of Sciences (MTA) for female researchers	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
L’ORÉAL-UNESCO Hungarian Grant for Women and Science	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Framework programme for equal opportunities from the Hungarian Academy of Sciences	Individuals (1 & 2)	Women (2)	Missing	Missing	Work-Life-Balance	2

All these instruments offer special support for women in science and some even explicitly address women’s alleged disadvantages (maternity for example). This suggests a gender equality vision associated with the first and the second model, the ‘inclusion’- and ‘reversal’-type. The data provides no policies aiming at cultural and/or institutional change, dismissing an allocation to the ‘transformation’-model.

²⁴⁴ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

Ireland

1. Gender in Science Knowledge 'Input'

Ireland's higher education sector consists of 7 public universities and 14 institutes of technology, colleges of education and other institutions²⁴⁵, as well as 7 private universities²⁴⁶. There are 7 gender study programmes at different levels (BA, MA, doctoral). Ireland has 4 key public research organisations²⁴⁷ and 3 gender studies research centres (2 in Dublin, 1 in Galway).^{248 249} The Science Foundation Ireland²⁵⁰, the Higher Education Authority²⁵¹ and the Irish Research Council²⁵² are the most important research funding organisations.

2. Actors in Gender Equality

In the following, the actors focusing on gender equality in Ireland will be outlined and their activities on gender equality explained.

The **Irish Research Council** has drawn up the Gender Strategy & Action Plan 2013, in order to put forward gender equality. The **Health Research Board**, which operates under the **Department of Health and Children of the Irish Government**, has appointed a **Health Service Executive Gender Mainstreaming Steering Group** responsible for guidelines on how to ensure that health research and data collection include a gender dimension.²⁵³

The **Expert Group on Future Skills Needs** reports to the Department of Jobs, Enterprise and Innovation²⁵⁴ and functions as an advisory body for the Irish Government regarding economy and labour market issues, but also collects data on gender distribution of all levels of the Irish education system.²⁵⁵

The **Department of Justice and Equality** of the Irish Government comprises a **Gender Equality Division**.²⁵⁶

²⁴⁵ See <http://www.hea.ie/en/statistics/overview> and

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (both visited January 21, 2015).

²⁴⁶ See <http://www.educationinireland.com/en/Where-can-I-study-/View-all-Private-Higher-Education-Institutions/> (visited January 21, 2015).

²⁴⁷ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=ResearchPerformers&subsection=PublicResearchOrganisation (visited January 21, 2015).

²⁴⁸ See <http://www.gender-studies.org/en/#ie> (visited January 12, 2015).

²⁴⁹ There are no data available regarding the proportion of women in grade A positions and thus no Glass Ceiling Index for Ireland in the She Figures 2012 report.

²⁵⁰ For more information see <http://www.sfi.ie/> (visited January 21, 2015).

²⁵¹ For more information see <http://www.hea.ie/> (visited January 21, 2015).

²⁵² For more information see <http://research.ie/> (visited January 21, 2015).

²⁵³ http://www.nwci.ie/download/pdf/equal_but_different_final_report.pdf pg

²⁵⁴

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=Overview&subsection=StrResearchSystem

²⁵⁵ <http://www.egfsn.ie/aboutus/> and [http://www.egfsn.ie/media/05072013-](http://www.egfsn.ie/media/05072013-Monitoring_Ireland%27s_Skills_Supply_2013-Publication.pdf)

[Monitoring_Ireland%27s_Skills_Supply_2013-Publication.pdf](http://www.egfsn.ie/media/05072013-Monitoring_Ireland%27s_Skills_Supply_2013-Publication.pdf)

²⁵⁶ <http://www.genderequality.ie/en/GE>

The **Inter-Departmental Committee on Science, Technology and Innovation** includes senior officials from the ministries having a significant research budget. The committee is responsible for implementing research policies and strategies for Science, Technology and Innovation. Those departments which are members of the Inter-Departmental Committee on Science, Technology and Innovation, as well as funding agencies which are under the remit of these departments, are included in the Prioritisation Action Group (PAG), chaired by the **Minister for Research and Innovation**. The PAG in turn reports to the Cabinet sub-committee on Economic Recovery and Jobs.²⁵⁷

The Office of Science, Technology and Innovation within the Department of Jobs, Enterprise and Innovation is of significance for STI policy development of the Irish government. The Advisory Council for Science, Technology and Innovation and the Chief Scientific Adviser, who is also head of the Science Foundation of Ireland, provide counselling and advice to the government in the field of science, technology and innovation.²⁵⁸

The two ministries mainly responsible for research funding are the Department of Jobs, Enterprise and Innovation, as well as the Department of Education and Skills, which hold the responsibility for the Science Foundation Ireland and the Higher Education Authority respectively. Seven universities in Ireland perform research within the publicly-funded sector, whereas multinational companies perform research within the private sector.²⁵⁹ The seven Irish universities, as well as several Institutes of Technology voluntarily comply with the EU Charter and Code, as they operate a policy of open recruitment.²⁶⁰

At the local level, e.g. WITS - the Women in Technology and Science forum, actively promotes women's equal representation in science and technology and raises awareness since the 1990s.²⁶¹ Also the Centre for Women in Science & Engineering Research (WiSER) at Trinity College Dublin, for example, works to 'recruit, retain, return and advance' women in science, engineering and technology²⁶² through various actions (e.g. mentoring, awareness trainings).

3. Framework

Comment

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http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=Overview&subsection=StrResearchSystem

²⁵⁸

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=Overview&subsection=StrResearchSystem

²⁵⁹

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ie/country?section=Overview&subsection=StrResearchSystem

²⁶⁰ http://ec.europa.eu/research/era/pdf/era_progress_report2014/era_fiches_eu-2_2014.pdf#page=107

²⁶¹ See <http://witsireland.com/cms/>.

²⁶² See <https://www.tcd.ie/wiser/>.

The Irish legislation provides basic provisions on gender equality and anti-discrimination for employment. In Ireland Gender Equality plans are not based on legislative provisions and offices on gender equality are also not based on legal provisions.²⁶³

List of Legal Provisions

Employment Equality Acts 1998-2011 and Equal Status Acts 2000-2012: prohibition of direct and indirect discrimination, sexual harassment, harassment and victimisation in relation to nine equality grounds: **gender**, (...).

Employment Equality Acts: prohibition of discrimination in employment – including recruitment, promotion, pay and other conditions of employment.

Equal Status Acts: prohibition of discrimination in access to and provision of services, accommodation and educational establishments.

Disability Act 2005: obligations on public bodies in terms of providing integrated access to services and information to people with disabilities, as well as promoting the employment of people with disabilities.

Universities Act 1997: obligations for universities to promote equality, including gender balance, and access.

Policy Instruments

Ireland signed a formal commitment to mainstream gender in the beginning of the millennium; however the agreement is not binding to public institutions.²⁶⁴

The **National Women's Strategy (2007-2016)** references women in science in terms of the gender pay gap and the underrepresentation of women in science, engineering and technology. In the Irish **Strategy for Science, Technology and Innovation 2006-2013** mentions the issue of gender representation in student education (physics), but neither the **Irish Framework for Monitoring public Investment** nor the **National Strategy for Higher Education** in which performance indicators for HEI are defined, refer to gender or women representation in public research. Yes, all 7 Irish universities signed the EU Charter and Code of Conduct for the Recruitment of Researchers.

Furthermore, the Health Research Board established a **Framework for integrating gender equality** in Health Service Executive Policy, Planning and Service Delivery 'equal but different' in 2012. The Framework contains guidelines in order to develop health data collections which consider gender perspectives as well as sex-disaggregation.

More recently, the Irish Research Council published a **Gender Strategy and Action Plan 2013-2020**. Therein, the Research Council defines the following priorities: promotion of equality between women and men in all stages of the research career, securing that research funded by the Council considers the sex- and gender dimension in research content and that all efforts relating to gender equality and sex-/gender analysis in research content will be a transversal task for all units of the Council.

²⁶³ <https://www.tcd.ie/wiser/>.

²⁶⁴ Cf. EIGE 2014, Effectiveness of institutional mechanisms, reference date 2012

4. Implementation Approach

There are several policy instruments in Ireland addressing gender and science. General measures regarding gender equality in Irish society are concentrated within the National Women’s Strategy.²⁶⁵ Further, the Irish Research Council Gender Strategy & Action Plan (2013-2020) emphasise the relevance of gender in research content.²⁶⁶ The Science Foundation Ireland (SFI) financially supports women postdoctoral researchers with their retention in, or return to research (Advance Award Programme).²⁶⁷ In addition to WiSER and WITS, there are several other actions promoting women’s participation in natural sciences and technology: for example the JUNO project²⁶⁸ which rewards departments that can demonstrate positive action against the gender imbalance, Women Invent Tomorrow²⁶⁹ or Athena SWAN²⁷⁰.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
SFI Advance Award Programme	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
WiSER	Individuals & Organisations (all)	Women (2)	Missing	Missing	Career advancement Strategy for structural change	All
WITS	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement Awareness raising	1 & 2
Athena SWAN Charter	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
JUNO	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Irish Research Council's Gender Strategy & Action Plan 2013-2020	Organisations (3)	Women & men (1)	Missing	Missing	Strategy for structural change	1 & 3
Women Invent Tomorrow	Individuals (1 & 2)	Women (2)	Missing	2 years (1)	Career advancement	1 & 2

Not many of the policy measures in Ireland indicate the transformative conceptual approach. An exemption is WiSER, which explicitly acknowledges the ‘gendered-ness’ of organisations and embeds its

²⁶⁵ For more details see section 3.

²⁶⁶ For more details see section 3.

²⁶⁷ See <http://www.sfi.ie/funding/funding-calls/closed-calls/sfi-advance-award-programme-2014.html>.

²⁶⁸ See <http://www.iop.org/policy/diversity/initiatives/juno/index.html>.

²⁶⁹ See <http://www.siliconrepublic.com/special-events/women-invent-tomorrow/>.

²⁷⁰ See <http://www.ecu.ac.uk/news/ecu-extends-athena-swan-to-republic-of-ireland/>.

strategy into all three of the here defined models.²⁷¹ The Research Council's Gender Strategy & Action Plan indicates a transformative approach, as it for example ensures that all research funded by the Council considers a sex- and gender-dimension. All in all, Ireland shows more signs of the 'inclusion'- and 'reversal'- gender equality vision in the field of gender and science.

Iceland

1. Gender in Science Knowledge 'Input'

There are 2 public universities in Iceland (the University of Iceland and the University of Akureyri), 1 private university (the Reykjavik University), as well as 2 public colleges/universities of applied sciences and 2 private colleges/academies. The University of Iceland (as the only higher education institution in Iceland) offers 2 master programmes in gender studies, 1 doctoral gender study programme and a postgraduate diploma in applied gender studies.²⁷² Iceland has 8 main public, non-university research organisations²⁷³ and 7 gender studies centres. There is one public research funding body, the Icelandic Centre for Research (RANNIS)²⁷⁴.

In 2010, the proportion of women at grade A level was 24.2 % in Iceland (16 % in 2002), which is above EU-27 average (She Figures 2010: 91). The Glass Ceiling Index for Iceland was 1.48 in 2010 – a vast decrease since 2004 (2.24) (She Figures 2012: 96).

2. Actors in Gender Equality

In Iceland the actors focusing on gender equality are the state, the municipalities and NGO's. The ministry of Welfare is responsible for the Icelandic Governments gender equality policy and has a special department for gender equality and employment matters. In addition, each ministry of the Icelandic Government includes a gender expert responsible for gender mainstreaming and gender equality issues.²⁷⁵

The Centre for Gender Equality operates under the Ministry of Welfare. Besides its activities to counteract gender discrimination on the labour market and gender stereotypes, the centre provides counselling and educational activities on gender equality for the Icelandic Government and its agencies, as well as for other public or non-public actors. The centre also controls the government's gender equality legislation and implements gender equality policies. It also helps to prepare complaints for the Gender Equality Complaints Committee.²⁷⁶ The Ministry of Welfare also appoints three lawyers who

²⁷¹ See <https://www.tcd.ie/wiser/about/what/> (visited January 28, 2015).

²⁷² See <https://ugla.hi.is/kennsluskra/index.php?tab=nam&kennsluar=2014&flaturlisti=0&namsstig=F> (visited January 12, 2015).

²⁷³ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/is/country?section=ResearchPerformers&subsection=PublicResearchOrganisation (visited January 21, 2015).

²⁷⁴ See <http://en.rannis.is>.

²⁷⁵ <http://eng.velferdarraduneyti.is/>

²⁷⁶ <http://jafnretti.is/jafnretti/default.aspx>

make up the Gender Equality Complaints Committee, which becomes active in cases where gender equality legislation is being violated. The decisions of the committee are binding.²⁷⁷

The Gender Equality Fund, which was set up by the Icelandic Government in 2005, aims to promote research on gender equality. The fund also provides grants for research projects on gender equality on the labour market and in other areas of society.²⁷⁸

Additionally, the Gender Equality Council is appointed by the Icelandic Parliament and consists of central actors and representatives from the labour market, as well as members from women's organisations. The council is responsible for the organisation of a gender equality forum which takes place twice a year. Within the framework of its consultative function, the council is specialised in issues on the reconciliation of work and family life, as well as gender equality and work.²⁷⁹

Finally, it needs to be mentioned that municipal gender equality committees advise municipal boards, implement measures on gender equality and monitor developments regarding gender equality at the local level. Several non-governmental actors actively involved in gender equality are, e.g. the Icelandic Women's Rights Association, the Women's Shelter or the Feminist Association of Iceland.²⁸⁰

Gender Equality plans in Iceland are based on legislative provisions and offices for gender equality are based on legal provisions in accordance with the Act on Equal Status and Equal Rights of Women and Men no.10/2008.²⁸¹

3. Framework

Comment

The Legislation provides a strong framework for gender equality and anti-discrimination in all spheres of society which is also applicable for the Higher Education and research institutions. Possible gender inequalities in public funding are being examined.

List of Legal Provisions

Act on Equal Status and Equal Rights of Women and Men No 10/2008:

- establishing and maintaining equal status and equal opportunities for women and men;
- promotion of gender equality in all spheres of society;
- Gender mainstreaming in all spheres of the society;
- Increasing education and awareness-raising on gender equality;
- Working towards equal influence of women and men in decision-making and policy-making in the society;
- Analysing statistics according to gender;
- increasing research in gender studies;

²⁷⁷ <http://eng.velferdarraduneyti.is/departments/gender-equality/>

²⁷⁸ <http://www.forsaetisraduneyti.is/jafnrettissjodur/>

²⁷⁹ <http://eng.velferdarraduneyti.is/departments/gender-equality/>

²⁸⁰ <http://kvenrettindafelag.wordpress.com/about-iwra/> and <http://www.kvennaathvarf.is/English/>

²⁸¹ http://eng.velferdarraduneyti.is/media/acrobat-enskar_sidur/Act-on-equal-status-and-equal-rights-of-women-and-men_no-10-2008.pdf

- working against wage discrimination and other forms of gender-based discrimination on the employment market;
- Working against gender-based violence and harassment;
- Enabling both women and men to reconcile their work and family life;
- Changing traditional gender images and working against negative stereotypes regarding the roles of women and men
- Gender equality plans
- Gender equality offices

Act on public support for scientific research: guarantee equal access of women and men to funding for scientific research funds; collection of information on the gender composition of expert councils, applicants and grantees, and grant amounts in all categories for the year 2012.

Policy Instruments

The **Act on Gender Equality** provides that mainstreaming gender is a central aspect in all policy development and decision making of the Icelandic government. Gender budgeting was introduced in all ministries at the time of the financial crisis since 2009.

The Icelandic four-year **Gender Equality Programme 2011-2014** contains a chapter on access of women and men to funding for scientific research. On the basis of the Act on public support for scientific research, a systematic data collection on the gender composition of expert councils, grant applicants and grantees and amounts of grants in all categories started in 2012.²⁸²

4. Implementation Approach

No data provided.

²⁸² <http://eng.velferdarraduneyti.is/media/rit-og-skyrslur2012/Parliamentary-Res-Gender-Equality-2011-2014-FINAL.pdf>.

Israel

1. Gender in Science Knowledge 'Input'

In Israel, there are 9 public and 42 private universities, as well as 3 universities of applied sciences and 23 public teacher-training colleges.²⁸³ Most Israeli universities now have a programme in the field of gender, ranging from a minor or first degree programme to master's degrees.²⁸⁴ Examples for specific gender study programmes are the Program for Gender Studies at the Bar-Ilan University and the Gender Studies Program at Tel Aviv University. There are approximately 30 notable independent research organisations in Israel of which six are involved in scientific research: The Agricultural Research Organisation at the Volcani Institute, the Israel Institute for Biological Research, the Geophysical Institute of Israel, two nuclear research institutes under the umbrella of the Israel Atomic Energy Commission and Israel Oceanographic and Limnological Research. Each institute has separate sources of funding and control and there is no overall mechanism that makes policy or regulates their activity.²⁸⁵ The Lafer Center for Women and Gender Studies is the only gender studies research centre in Israel. The two main actors in funding research are VATAT, the Hebrew acronym for the Planning and Budgeting Committee of the Council for Higher Education, and the Office of the Chief Scientist in the Ministry (OCS) in the Ministry of Industry, Trade and Employment.²⁸⁶

2. Actors in Gender Equality

The main actors in Israel focusing on gender equality in science are the **Council for Advancement of Women in Science and Technology**, which was initiated in March 2000 and consists of representatives of government and other national agencies, and its advisory forum, which includes women from industry, university lectures in women's studies and representatives of women's organisations; the **Unit for Gender Equality** (established in 2002 in the **Ministry of Education**); the **Ministry of Industry, Trade and Labour**; the **Ministry of Finance** and the **Council for Higher Education**.

The functions of the **Council for Advancement of Women in Science and Technology** include consciousness-raising among educators and the public at large, furthering projects designed to encourage girls and women to study science and technology, operating a website to publicise matters related to its area of responsibility, publication of an annual report detailing current data, and collection of information on ongoing activities related to women in science and technology.²⁸⁷

The **Ministry of Industry, Trade and Labour** operates courses for training women from various special groups - women from development areas in the country, ultra-orthodox women, single-parent mothers - in order to advance them and improve their economic situation.

²⁸³ Cf.

http://eacea.ec.europa.eu/tempus/participating_countries/overview/israel_tempus_country_fiche_final.pdf

²⁸⁴ Cf. <http://jwa.org/encyclopedia/article/science-in-israel>

²⁸⁵ Cf.

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/il/country?section=ResearchPerformers&subsection=PublicResearchOrganisation

²⁸⁶ Cf.

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/il/country?section=Overview&subsection=BasicChar

²⁸⁷ Cf. <http://jwa.org/encyclopedia/article/science-in-israel>

The **Unit for Gender Equality** operates programmes for eliminating gender stereotypes, programmes for empowerment and leadership of youth leaders, men and women. The unit deals with the educational system at all levels: principals, teaching staff, pupils, and parents.²⁸⁸ Furthermore, the **Ministry of Education** inspects all school textbooks for gender stereotyping since 2009.²⁸⁹

The **Ministry of Finance** enacted a six year budget in 2010, which will provide substantial addition funds in order to achieve long-term reform in Israeli higher education. Improving access to minorities, ultra-Orthodox and populations residing in the periphery was one of the two main pillars of this plan.²⁹⁰

The **Council for Higher Education** is the source of statutory authority in the university based research system. However, its authority is limited due to the national universities' high level of autonomy.²⁹¹ In a first effort of its kind, the council's planning and budgeting committee recently (2012) approved an action plan on the issue that was developed by a team headed by Rivka Carmi, who is chairman of Ben-Gurion University of the Negev and also chairs the Committee of University Heads. The document contains a range of directives designed to address barriers to the advancement of women in academia. Among the issues considered in the report are steps necessary to accommodate family obligations and child-rearing responsibilities. The plan also recommends the appointment of advisers to university presidents for the advancement of women, and proposes that institutions of higher learning adopt a commitment to proper representation of women on administrative committees. It also calls for annual statistical reports to be issued on representation of women at each school.²⁹²

3. Framework: legal, strategic and operational

List of relevant legal provisions

Whilst general laws relating to the equal treatment of women and men and initiatives (e.g. the Committee on the Advancement of Women in Science) exist, there is no legislation related specifically to gender and science.

An example for laws relating to the equal treatment of women and men, on November 20, 2007, the Knesset (Israel's parliament) enacted the **Gender Implications of Legislation Law** (Legislative Amendments) 5768-2007 which imposes a duty to systematically examine the gender implications of any primary and secondary legislation before it is enacted by the Knesset. The Law is aimed at exposing any hidden inequalities between men and women that might be present in different bills, in order to advance the status of equality between both genders.²⁹³

Policy Instruments

²⁸⁸ Cf. http://mfa.gov.il/MFA/InternatIOrgs/Issues/Pages/Women_in_Israel_Implementation_Beijing_Declaration-March_2009.aspx

²⁸⁹ Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

²⁹⁰ Cf.

http://eacea.ec.europa.eu/tempus/participating_countries/overview/israel_tempus_country_fiche_final.pdf

²⁹¹ Cf.

http://ec.europa.eu/euraxess/pdf/research_policies/country_files/Israel_Country_Profile_RR2014_FINAL.pdf

²⁹² Cf. <http://www.haaretz.com/print-edition/news/israel-s-higher-education-council-wants-more-women-in-top-faculty-positions-1.416725>

²⁹³ Cf. <http://mfa.gov.il/MFA/AboutIsrael/State/Law/Pages/Ensuring-equal-rights-for-women-in-Israel.aspx>

In Israel, various gender and science committees and initiatives exist but there is no overall strategic plan with specific guidelines and objectives on the subject. In the Israeli Parliament, there are two permanent committees dealing with women in science issues: the **Committee for the Advancement of the Status of Women** and the **Science and Technology Committee**. At the regional level, Israel passed a law in 2003 ‘that obligates every local authority to appoint an adviser on the status of women for that locality’. In science more specifically, the **Israeli Ministry of Science** has initiated specific Fellowships for the Advancement of Women in Science, as well as Excellence Centres which encourage students to enter the scientific-technological fields. Some of these centres offer, amongst other things, specific courses for women.²⁹⁴ The 6 year reform plan in place (2010 – 2016) includes in its goals “[i]ncreased access for the ultra-Orthodox and minority populations” but the focus is primarily on Ultra-Orthodox/Arab women and other minority groups, rather than a strong focus on increasing gender balance overall. Excellence Centres are part of this reform plan.²⁹⁵ Even though there regulations on general gender equality, there are no policy regulations in place to correct any possibilities of discrimination against women in achieving research positions or to promote equal gender representation in academic and research committees, boards and governing bodies.²⁹⁶

4. Implementation Approach

There are several policy measures addressing gender inequalities in the science domain. For example, the Israeli Women in Science & Technology grant is awarded to 10, 11 or 12 handpicked recipients every year since 2007, the grants of \$20,000 per year for two years are intended to help young women with the expense of bringing their families along for prestigious postdoctoral fellowships abroad – considered a must for the career advancement of top-tier young scientists²⁹⁷. The Forum for the Advancement of Women in Academia is a group of women professors from Israeli research universities and colleges, who have the goal of placing gender equality at the forefront of university agendas by creating programmes that support women in graduate studies and by lobbying for increased participation of women in decision-making positions in higher institutions of education.²⁹⁸ Further, a variety of scholarship programmes for women undergraduates and graduates exist.²⁹⁹ The GES project aims to increase the level and number of girls who study mathematics and physics in high school, with the goal of reaching the required level to enter engineering studies in university.³⁰⁰ ORT Young Women for the 21st Century, created by Israel’s first certified female pilot, Yeal Rom, is a programme which improves teaching and learning methods among teachers and pupils³⁰¹, and the Future Generation of Hi-Tech initiative aims to encourage women to choose a career in science and technology and to encourage students, especially girls, to study science and technology in high school.³⁰² In cooperation with the Ministry of Education,

²⁹⁴ Cf. http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

²⁹⁵ Cf. <http://taubcenter.org.il/tauborgilwp/wp-content/uploads/Eng-2012.2-Higher-Ed.pdf>

²⁹⁶ Cf. http://erawatch.jrc.ec.europa.eu/erawatch/export/sites/default/galleries/generic_files/file_0323.pdf

²⁹⁷ Cf. <http://mfa.gov.il/MFA/InnovativeIsrael/ScienceTech/Pages/Women-in-science-7-Oct-20131007-2197.aspx>

²⁹⁸ Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

²⁹⁹ For more information see:

http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

³⁰⁰ Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

³⁰¹ Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

³⁰² Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

the Israel Women’s Network offers programmes that advance the standing of women and fight gender stereotypes in the education system.³⁰³

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Israeli Women in Science & Technology	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement Work-Life-Balance	2
The Forum for the Advancement of Women in Academia	Individuals & Organisations (all)	Women (2)	Missing	Missing	Career advancement Strategy for structural change	More 2
GES project: Girls to Engineering Studies.	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
ORT Young Women for the 21st Century	Individuals (1 & 2)	Women (2)	Missing	Missing	Strategy for structural change	2
The Future Generation of Hi-Tech, an initiative	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Israel Women’s Network	Individuals & Organisations (all)	Women (2)	Missing	Missing	Career advancement Awareness raising	More 2

The majority of these analysed instruments are career advancement-measures focusing on women’s career advancement or women’s participation in the STEM field, thus indicating an ‘inclusion’- and/or ‘reversal’- implementation approach. However, some of these measures also include aspects that target organisations and structural change or that seek to increase awareness for gender inequalities in the science area (e.g. Israel Women’s Network).

³⁰³ Cf. http://mfa.gov.il/MFA/AboutIsrael/Spotlight/Pages/Advancement_women_science_2011.aspx

Italy

1. Gender in Science Knowledge 'Input'

In 2013, there were 67 public universities and 29 private universities in Italy³⁰⁴. 6 of them offer gender study degree programmes. Further, there are 13 public non-university research organisations³⁰⁵. The Ministry of University and Research (MIUR) is the key research funding body.³⁰⁶

The proportion of women at grade A level in academia increased from 15.6 % in 2002 to 20.1 % in 2010, which is about the EU-27 average (19.8 % in 2010) (She Figures 2012: 91). Italy's Glass Ceiling Index, however, lies slightly below the EU-27 average, with a value of 1.76 in 2010 (1.91 in 2004) (She Figures 2012: 96).

2. Actors in Gender Equality

The **Ministry of Education, Universities and Research** (MIUR) is an important key player in gender equality in Italy, especially in terms of the Italian research system. MIUR is responsible for policy-making and funding for research agencies and universities. The preparation of the three-year national research programme (PNR), the Italian Government's main document for R&D planning, is also coordinated by MIUR.

In addition, MIUR and the **Department for Equal Opportunities** (DPO) formalised an agreement on gender equality in 2013.³⁰⁷ The agreement includes actions to coordinate and foster governmental action to implement policies on gender equality in the fields of health, research, education, family, employment, the environment, elective appointments and gender representation. It also includes measures to ensure human rights for women and men and eliminate discrimination on the grounds of social categories, such as sex, race, ethnic origin, religion, disability age or sexual orientation, and initiates to highlight gender in all governmental initiatives, gender budgeting, research and statistical surveys.³⁰⁸

However, there is the **Italian Women Innovators and Inventors Network** (ITWIIN)³⁰⁹; an association that assists women through mentoring and training in the field of invention and innovation.

3. Framework

Comment

³⁰⁴ See

https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Italy:Types_of_Higher_Education_Institutions (visited January 22, 2015).

³⁰⁵ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/it/country?section=ResearchPerformers&subsection=PublicResearchOrganisation (visited January 22, 2015).

³⁰⁶ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/it/country?section=ResearchFundings&subsection=GovernmentAndRegionalAuthorities (visited January 22, 2015).

³⁰⁷ European Research Area Facts and Figures Italy 2013:

http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf

³⁰⁸ http://www.ricercainternazionale.miur.it/media/2977/protocollo-miur-dpo_eng.pdf

³⁰⁹ See <http://www.itwiin.it/>.

The legal responsibility for advancing gender equality in institutions of the public research sector lies with the RPOs. The Italian legislation only stipulates a declaration of intent regarding gender equality in university education. In Italy Gender Equality plans are not based on legislative provisions and, similarly, offices for gender equality are also not based on legal provisions.³¹⁰

List of Legal Provisions

Law 240/2010 on the General Reform of University Education (2010): Gender equality provisions are limited to a generic “declaration of intent”. The law calls for a representative gender balance in the “board of trustees” of research institutions.

Resolution of 6th October 2009: the Italian Parliament adopted a Resolution aimed at improving researchers’ employment and working conditions. Law 240/2010 is partly compliant with the objectives set out in the Resolution.

Policy Instruments

The Italian government’s commitment to gender mainstreaming is de facto binding since 1997. “Actions intended to promote women's empowerment, to recognise and ensure freedom of choice and a better quality of social life for women and men”. Two years later, the first operational tool, approved by the Presidency of the Council of Ministers, Department for Equal Opportunities, was created ‘**Guidelines for the evaluation of strategic impact on equal opportunities actions**’. These guidelines were aimed at preparing and evaluating the regional programme in relation to the criteria of equal opportunities between women and men. The document aimed at facilitating the realisation of mainstreaming in the new programming period of Structural Funds, supporting the transition from the “strategies phase” to the actual implementation of concrete measures.

The ‘Ministry for Equal Opportunities’ and the ‘Ministry of Education, Universities and Research’ have signed a memorandum of understanding on gender equality in the research profession which set up a consultation Panel.³¹¹

In general, all the national policies on gender equality and gender mainstreaming seem to result from pressure by the EU, both in terms of regulatory recommendations, and in terms of allocation of funds.

Information about indicators or monitoring mechanisms is unavailable

4. Implementation Approach

No specific policy measures regarding gender equality in science have been adopted yet.³¹²

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
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³¹⁰ Template Italy, questions 8 & 9

³¹¹ http://www.ricercainternazionale.miur.it/media/2977/protocollo-miur-dpo_eng.pdf

³¹² See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

Italian Women Innovators and Inventors Network	Individuals (1 & 2)	Women	Missing	Missing	Career advancement	2
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There is no indication for a congruent policy approach in the field of gender equality in science in Italy. The Italian Women Innovators and Inventors Network however is characteristic of policies within the 'reversal'-model; it is a career advancement-practice, supposed to out-balance women's disadvantages.

Lithuania

1. Gender in Science Knowledge 'Input'

The higher education sector in Lithuania comprises 14 state universities, 8 private universities, 13 state and 11 non-state colleges.³¹³ There are 10 non-university research institutions. Lithuania has 3 gender studies centres³¹⁴ and 5 gender study programmes. 5 main agencies are responsible for funding of research and innovation.³¹⁵

The proportion of women in grade A academic positions in Lithuania is well below EU-27 average. In 2007, only 14.4 % of academics at grade A level were women, which is, however, a slight increase since 2002 (12.2 %) (She Figures 2012: 90/91). Lithuania has the second highest Glass Ceiling Index; it was 2.96 in 2007 (3.19 in 2004) (She Figures 2012: 96).

2. Actors in Gender Equality

The actors responsible for gender equality in Lithuania are the Seimas (Parliament), the Lithuanian Government, the Ombudsperson for Equal Opportunities, the Ministry of Social Security and Labour, the Gender Equality Division, as well as the Ministry of Education and Science, the Centre for Equality Advancement and the Women's Issues Information Centre. Additionally, the five main universities of the country each comprise a gender studies centre.

The **Lithuanian Parliament** (Seimas) acts in compliance with the Law on Equal Opportunities for Women and Men since 1998, whereby a legal basis against direct or indirect discrimination has been established and ways have been paved for the implementation of a legal obligation in gender equality for state and private institutions in employment, education and science. The Parliament also set up the Office of Ombudsperson on Equal Opportunities in 1999, which is an institution independent of the state and supposed to supervise and implement gender equality in Lithuania.

The Ministry of Social Security and Labour comprises a Gender Equality Division, while the Ministry of Education and Science has introduced a strategy for the implementation of gender equality in research and technological development (RTD). In the years from 2008-2013 it was planned to develop measures for gender mainstreaming.

3. Framework

Comment

The legal framework provides basic rights for equal opportunities, equal treatment and gender mainstreaming. Neither are Gender Equality plans based on legislative provisions, nor are gender equality offices based on legal provisions in Lithuania.³¹⁶ Specific provisions for Higher Education and research institutions do not exist.

³¹³ See <http://www.euraxess.lt/content/higher-education-institutions.php> (visited January 15, 2015).

³¹⁴ See <http://www.lygus.lt/2014/11/lyciu-studijos/>.

³¹⁵ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/lt/country?section=Overview&subsection=StrResearchSystem (visited January 15, 2015).

³¹⁶ Template Lithuania, questions 8 & 9

List of Legal Provisions

Constitution of the Republic of Lithuania: equal opportunities and equal treatment

Law on Equal Opportunities for Women and Men: equal opportunities and equal treatment; gender mainstreaming; Office of the Ombudsman for Equal Opportunities

Policy Instruments

Since 2003 Lithuania has a national agreement (obligation) on gender mainstreaming. The government approved three **National Programmes on Equal Opportunities for Women and Men** (2003–2004) followed by (2005–2009) and (2010– 2014). Measures of the 2010-2014 programme implementation cover the following areas: employment; education; decision-making processes; measures for implementation of EU and international commitment; national defence; environmental protection; health; women’s and men’s equal opportunities mechanisms and methods of implementation and statistics. The national programme was implemented in cooperation with NGOs, educational institutions, and social partners as part of the **National Lisbon Strategy Implementation Programme**. The goal of the programme is to solve issues concerning equal opportunities for women and men consistently and systematically in all areas, such as employment; education and science; policy and decision-making processes; health; environmental protection and cooperation of governmental and non-governmental institutions.

The **Lithuanian Strategy ensuring Equal Opportunities for male and female in the Sciences** was approved by the Minister of science and education in 2008. The strategy provides the legal foundation for the introduction of ‘Gender equity and gender mainstreaming’ as a horizontal principle in other strategies and programmes. Further information on the state-of-play of this strategy was unavailable (in English?). With little evident strategic orientation, the national gender machinery operates gender mainstreaming in specific policies. A national project on the promotion of gender equality in the sciences (LyMos) ended 2013.

European policy priorities and EU - funds are key resources to the development of gender equality actions in Lithuanian universities.

4. Implementation Approach

No data provided.

Luxembourg

1. Gender in Science Knowledge 'Input'

Luxembourg has a single university, 4 non-university research organisations, with each having several research departments³¹⁷, and 2 main research funders (the National Research Fund (NRF)³¹⁸ and the Ministry of Higher Education and Research)³¹⁹. There are, however, no gender studies research centres or gender study programmes.

Luxembourg ranks at the bottom of the EU countries regarding the proportion of women in grade A academic positions – only 9 % of academics in highest positions are women, which is the lowest proportion among the EU countries overall (She Figures 2012: 90). Belgium's Glass Ceiling Index is the third highest in the EU, being at 2.55 in 2005 and 2.82 in 2009 (She Figures 2012: 96).

2. Actors in Gender Equality

The actors promoting gender equality in Luxembourg are the **Ministry of Equal Opportunity**, which set up a workshop for gender and science in 2004, and the **Delegate for Women and Gender Issues**, which was appointed to advise the **Rector of the University of Luxembourg** in 2003.³²⁰

The national Girls' and Boys' Day is organised by **Cid-Femmes**³²¹, an organisation for women in politics, culture and business.

Information about Gender Equality plans in Luxembourg is not available. Luxembourg does not have units for women and/or gender in science.³²²

3. Framework

Comment

There is no legislation on gender equality in Higher Education.

List of Legal Provisions

There are laws prohibiting discrimination based on gender (ERA Facts & Figures 2013).³²³ A Law on public research institutions is currently under discussion in the Parliament.

Policy Instruments

³¹⁷ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/lu/country?section=ResearchPerformers&subsection=PublicResearchOrganisation.

³¹⁸ For more information see <http://www.fnr.lu/>.

³¹⁹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/lu/country?section=Overview&subsection=StrResearchSystem.

³²⁰ Benchmarking Policy Measures, p. 90; http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

³²¹ See <http://www.cid-femmes.lu/>.

³²² Ibid.

³²³ Not part of the feedback by the partners.

Luxembourg’s higher education and research sector is relatively small, yet, the country officially committed to gender mainstreaming.³²⁴ Specific resources to implement gender mainstreaming seem to have not been available.³²⁵ A key document on the strategic orientation concerning gender equality in the sector was not available.

Gender equality indicators form part of the **performance contracts** between the university and correspondingly research centres, and the Ministry of Higher Education.³²⁶ Therein indicators involve the share of women in ‘Grade A’ professorial positions, the budget spent on measures to improve the reconciliation of work and family life and research on gender. (needs to be checked, phrase in profile unclear!)

4. Implementation Approach

There are few policy instruments regarding gender and science in Luxembourg. The National Research Fund (NRF) encourages Public Research Organisations (PROs) to support women candidates for grants; there are however no quotas, national targets or other measures aiming at gender balance or structural change in Luxembourg.³²⁷

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Girls’ Day – Boys’ Day	Individuals (1 & 2)	Women & Men (1)	Missing	Missing	Career advancement	1

The Girls' and Boys' Day³²⁸, set up by Cid-Femmes³²⁹, an organisation for women in politics, culture and business, is a measure that can be allocated to the first model ('inclusion'), as it addresses individuals and primarily aims at providing equal 'opportunities' and access.

³²⁴ Cf. EIGE (2014)
³²⁵ Cf. EC (2008), Benchmarking Policy Measures, p. 90.
³²⁶ EC, Researcher’s Report 2013
³²⁷ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.
³²⁸ See <http://www.girls-day.lu/de>.
³²⁹ See <http://www.cid-femmes.lu/>.

Netherlands

1. Gender in Science Knowledge 'Input'

In the Netherlands, there are 14 public universities and 41 universities of applied sciences (“hogescholen”)³³⁰. Out of all these higher education institutions, only the University of Utrecht offers full degree programmes in gender studies³³¹, a research Master “Gender and Ethnicity”, the Master Gender studies and the Erasmus Mundus Master in Gender and Women’s studies. Public research in the Netherlands consists of 3 main research organisations; the Netherlands Organisations for Scientific Research (NWO)³³², the Royal Netherlands Academy of Arts and Sciences (KNAW)³³³ and the Netherlands Organisation for Applied Scientific Research (TNO)^{334 335}, comprising a total number of 32 institutes. In addition, there are 12 centres of excellence engaged in research. In contrast, only 5 gender studies research centres exist³³⁶. Two Dutch institutional bodies are responsible for research funding: the Ministry of Education, Culture and Science (OCW)³³⁷ and the Netherlands Organisation for Scientific Research (NWO).

The share of women in grade A research positions increased from 8.2 % in 2002 to 13.1 % in 2010, which is below EU-27 average (She Figures 2012: 91). The Glass Ceiling Index decreased from 2.26 in 2004 to 1.92 in 2010 (She Figures 2012: 96).

2. Actors in Gender Equality

The **Ministry of Education, Culture and Science** is responsible for the coordination of gender equality policies in the Netherlands. The Ministry comprises a **Directorate for Equality**, due to its coordinating responsibilities in gender equality. Moreover, each Ministry in the Netherlands comprises an advisor, who functions as a contact point especially for the Ministry of Education, Culture and Science. The **Netherlands Organisation for Scientific Research** (NWO), the national research council, offers a programme especially for women in science, which is supposed to increase women’s participation in science.³³⁸

In addition, the NWO (together with the Ministry for Education, Culture and Science) funds the **Dutch Network of Women Professors**³³⁹, which aims to promote gender balance within academia.

³³⁰ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/nl/country?section=ResearchPerformers&subsection=HigherEducationInstitutions.

³³¹ See <http://www.genderstudies.nl/gender-studies-programme/>.

³³² For more information see <http://www.nwo.nl/en>.

³³³ For more information see <https://www.knaw.nl/en/about-us>.

³³⁴ For more information see <https://www.tno.nl/en/>.

³³⁵ See <http://www.government.nl/documents-and-publications/leaflets/2012/04/17/the-science-system-in-the-netherlands.html>.

³³⁶ See <http://www.gender-studies.org/en/#nl>.

³³⁷ For more information see <http://www.government.nl/ministries/ocw>.

³³⁸ Benchmarking Policy Measures 2008, p. 95; http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

³³⁹ See <http://www.lnvh.nl/>.

3. Framework

Comment

The Dutch legislation provides basic provisions on equal opportunities and anti-discrimination, especially for the workplace. Specific regulations for Higher Education and research institutions do not exist. Neither are Gender Equality plans based on legislative provisions in the Netherlands, nor are offices for gender equality based on legal provisions.

List of Legal Provisions

Anti-discrimination Act (1999): anti-discrimination, can be referred to for measures concerning the interruption and extension of a grant's validity because of maternity leave

Equal Treatment (Men and Women) Act: Equal opportunities

Dutch Civil Code and the Central and Local Government Personnel Act: prohibit discrimination between men and women in the workplace

Policy Instruments

Information about gender mainstreaming in the Netherlands is scarce. The Ministry of Education, Culture and Science coordinates gender equality policies in general in the Netherlands.³⁴⁰ General policy objectives relating to improving women's participation in the labour market (specifically in low-skill jobs) and access to top positions in business are outlined in the '**LGBT and Gender Equality Policy Plan of the Netherlands 2011-2015**'.³⁴¹ The LGBT policy plan outlines that responsibility for mutual respect and gender equality lies with Dutch citizens. The policy stresses, that appointment policies are the individual responsibility of companies and organizations. In addition, the government decided to end tax exceptions which support economic dependency in families (one-and-a-half family incomes) and families with children under the age of five by amending existing regulations. At the same time, the government's support to childcare facilities increased (but suffered cutbacks during the financial crisis). In order to counteract against the low numbers of women in leading positions, the government supports the '**Talent to the Top**' charter and annually monitors the gender compositions of top positions of the charter's signees (business and some universities).

4. Implementation Approach

The Netherlands Organisation for Scientific Research (NWO), the key Dutch funding body, is rather active when it comes to gender equality policies in the research area. The Aspasia programme, linked to the NWO Talent Scheme, seeks to encourage the career advancement of women scientists to higher university positions where women are strongly underrepresented. The programme provides a grant to universities intended for the appointment of women candidates to associate professorships or full

³⁴⁰ Cf. EC (2008), Benchmarking Policy Measures,

³⁴¹ <http://www.government.nl/documents-and-publications/leaflets/2012/01/10/lgbt-and-gender-equality-policy-plan-of-the-netherlands-2011-2015.html>

professorships.³⁴² The NWO Meervoud programme allows universities to create temporary assistant professorships in the physical sciences on the condition of a guaranteed permanent research position for women candidates within the research institution.³⁴³ Furthermore, NWO defined target figures to improve the gender balance within its own organisation; in 2015, it is aiming for each NWO board and committee having a 40 % women membership.³⁴⁴ Moreover, some measures are implemented in the Netherlands. For example, the Foundation for Fundamental Research on Matter (FOM) financially supports the appointment of women in permanent positions in physics through the Minerva-Prize and bridging grants.³⁴⁵

The annual 'Girlsday'³⁴⁶ event intends to encourage and awake young girls' enthusiasm for natural sciences and technology.

Instrument	Subject	Gender	Monitoring	Timing	Type of practices	Model
NWO Aspasia programme	Organisations & Individuals (all)	Women (2)	Missing	Missing	Strategy for structural change	3 & 2
NWO Meervoud programme (2013)	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change	3 & 2
Girlsday	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Charter 'Talent to the Top' (2008)	Organisations (3)	Women (2)	Yes	Missing	Strategy for structural change	2 & 3
Fom/v Network/Minerva	Individuals & Organisation	Women (2)	Missing	Missing	Career advance	All

³⁴² For more details see <http://www.nwo.nl/en/research-and-results/programmes/aspasia> (visited January 28, 2015).

³⁴³ For more details see <http://www.nwo.nl/en/research-and-results/programmes/More+Women+Researchers+as+University+Lecturers+%28MEERVOUD%29/background> (visited January 28, 2015).

³⁴⁴ See <http://www.nwo.nl/en/news-and-events/dossiers/women+in+science> (visited January 28, 2015).

³⁴⁵ See

http://www.fom.nl/live/english/research/research_grants/other_fomgrants/artikel.pag?objectnumber=142857&referpagina=139675 and

http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁴⁶ See <http://www.vhto.nl/projecten/girlsday/index.php?id=13> (visited January 28, 2015).

Prize	s (all)					ment
FOM bridging grants	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change	3 & 2
NWO internal targets for gender balance	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3

When analysing the Netherlands' implementation approach in the field of gender and science, mixed gender equality concepts become visible. The measures put in place by the Dutch research council NWO show characteristics of the transformative model and the 'inclusion'- and the 'reversal'-type at the same time. The Aspasia programme and the Meervoud programme both target institutional change by supporting the creation of more permanent positions for women on the one hand, but exclusively focus upon women and their disadvantage and inclusion. The same goes for the FOM bridging grants and the Minerva Prize. 'Girlsday' and the Dutch network of women professors can be classified as measures within the 'inclusion'- and 'reversal'-vision of gender equality, as they target individual women and girls and their career advancement, rather than institutional and cultural change. The implementation of internal targets at the NWO, however, does aim at structural change within the organisation and can be allocated to the 'transformation'-model. Consequently, the implementation approach shows tendencies towards all three gender equality policy models in the research area – especially the research council's measures indicate risen awareness for a need for transformative action.

Norway

1. Gender in Science Knowledge 'Input'

In Norway there are in total 8 public universities, as well as 18 university colleges (*høgskoler*) and 7 specialised university colleges (*vitenskapelige høgskoler*).³⁴⁷ 5 universities offer a total of 9 gender study programmes on bachelor or master level.³⁴⁸ In addition, Norway has a national graduate school in gender studies that organises at least one doctoral course every year and with 7 universities as members.³⁴⁹ Specific for Norway is the extensive research institute sector that comprises 113 institutions.³⁵⁰ There are 12 gender studies centres.³⁵¹ The Research Council of Norway (RCN) is the main research funding body.

Norway is at the EU-27 average when it comes to the proportion of women in grade A academic positions; yet, the share of women increased from 15.7 % in 2003 to 21.4 % in 2010 (She Figures 2012: 90/91). Norway's Glass Ceiling Index is relatively low and below EU average, with a value of 1.66 in 2010 (1.74 in 2005) (She Figures 2012: 96).

2. Actors in Gender Equality

An important actor in gender equality in research is the **Ministry of Education and Research** in Norway. The Ministry is responsible for the coordination of research policy and functions as the main source for government research funds, while various other ministries are responsible for research related to their respective research field in society.³⁵²

The Ministry of Education and Research has appointed the **Committee for Gender Balance and Diversity in Research** (KIF) from January 2014 until December 2017, a committee which has been renamed several times ever since it was first appointed by the Ministry in 2004, and the remit of which was broadened to Diversity in 2014. The objectives of the committee include the promotion of gender equality and diversity measures at universities, university colleges and research institutions. It is also responsible for awareness raising on diversity and inclusion and the inclusion of gender and diversity perspectives in research and the initiation of respective measures to promote gender equality and diversity. The committee reports directly to the Ministry of Education and Research. In addition, it gives

³⁴⁷ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/country?section=ResearchP reformers&subsection=HigherEducationInstitutions (visited January 12, 2015).

³⁴⁸ See for more details <http://kilden.forskningsradet.no/c17274/artikkel/vis.html?tid=17278> (page only in Norwegian, visited January 13, 2015).

³⁴⁹ See for more details <http://kilden.forskningsradet.no/c73927/artikkel/vis.html?tid=73928> (page only in Norwegian, visited January 13, 2015).

³⁵⁰ It is a specific characteristic of Norway's national policy that research institutes in both the government and the private (business) sectors share a common administrative framework and the number of public research organisations includes both the government and business sector, see: http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/country?section=ResearchP reformers&subsection=PublicResearchOrganisation (visited January 13, 2015).

³⁵¹ See for more details http://www.gender.no/Gender_research/340 (visited January 13, 2015).

³⁵² http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/country?section=Overvie w&subsection=StrResearchSystem

advice and provides assistance regarding gender and diversity issues for actors and research institutions, ministries and the **Research Council of Norway (RCN)**.³⁵³

The **Research Council of Norway (RCN)** functions as the executive research policy agency in Norway. It is responsible for the implementation of research funding schemes and provides the Norwegian government with advice on research policies. It connects researchers, research funders and users of research with one another. The RCN is especially focused on the issue of gender equality, insofar as it holds the national responsibility for activities related to research policy that analyse and develop research on women, gender and equality in research. In addition, the RCN initiates, implements and monitors all research related to this field and aims to increase the number of women in research fields and academic positions in which they are underrepresented. The Ministry of Education and Research, as well as the **Ministry of Trade, Industry and Fisheries** contribute to the RCN's budget with € 960 million in 2012.³⁵⁴

The **Ministry of Children, Equality and Social Inclusion** comprises a unit which is in charge of the gender equality policy in Norway.³⁵⁵ The Ministry also includes the Norwegian **Directorate for Children, Youth and Family Affairs** (Budfir), which aims to prevent discrimination and to promote gender equality. The Ombudsman for Gender Equality and Anti-Discrimination (LDO) is an autonomous unit under the Ministry of Children, Equality and Social Affairs, which is responsible for the promotion of gender equality and the compliance with legislation regarding anti-discrimination and equality. The Norwegian Equality Tribunal is an independent committee handling complaints and enquiries directed at the LDO.

Additionally, three regional resource centres for gender equality have been set up by the Norwegian Government, in order to include gender mainstreaming in regional development and planning.³⁵⁶ The information service "Gender in Norway", which is coordinated by **KILDEN Information Centre for Gender Research in Norway**, is a website that provides users with information on Norway's involvement in gender equality, gender research, statistics, conferences and seminars.³⁵⁷

Gender Equality plans are included in legislative provisions in Norway, according to the Norwegian Gender Equality Act, by which all enterprises that are subject to statutory duty, including public research and higher education institutions, in Norway are obliged to comply with gender equality measures.³⁵⁸

Offices for gender equality in Norway are not based on legal provisions.

3. Framework

Comment

Basic Legal protection against gender discrimination is guaranteed. In addition, "gender equality features as an integral part of the Act on Education, within the general part of the curriculum, as well as

³⁵³ <http://eng.kifinfo.no/c62434/seksjon.html?tid=62476>

³⁵⁴ http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/country?section=Overview&subsection=StrResearchSystem

³⁵⁵ <http://www.nikk.no/en/facts/nations/norway/>

³⁵⁶ <http://www.nikk.no/en/facts/nations/norway/>

³⁵⁷ <http://www.gender.no>

³⁵⁸ <http://eng.kifinfo.no/c62447/seksjon.html?tid=62491>

within/ the different aspects of the education curricula".³⁵⁹ From 1988 onwards, all publicly appointed boards and committees in Norway had to be comprised of at least 40 per cent men and women.³⁶⁰ Quota legislation extended to publicly listed companies in 2006³⁶¹. The University legislation includes specific regulations related to gender.

*List of Legal Provisions*³⁶²

Gender Equality Act: prohibition of gender discrimination. The law pertains to all public research and higher education institutions in Norway. Obligation to active promotion of gender equality, and to give an annual account of the state of affairs regarding gender equality. „Employers shall make active, targeted and systematic efforts to promote the purpose of this Act in their undertakings. The activity duty shall encompass matters such as recruitment, pay and working conditions, promotion, development opportunities and protection against harassment.“ Maternity leave is guaranteed by law, also for women in temporary contracts.

Anti-Discrimination Act: banning discrimination based on ethnicity, nationality, origin, skin colour, languages, religion or other faith, sexual orientation, gender identity and gender expression

Working Environment Act: “The new anti-discrimination regulations added to the Working Environment Act protect against labour market-related discrimination on the basis of gender and ethnic origin etc., as well as on the grounds of disability, sexual orientation, age and political conviction. The act also ensures employees the entitlement to leave of absence during pregnancy and childbirth.”³⁶³

Act relating to universities and university colleges: gender balance in committees that decide new appointments and to “the extent possible” in cases of promotion. “The advertising and the filling of teaching and research positions are regulated by section 6-3: "If one sex is clearly under-represented in the category of post in the subject area in question, applications from members of that sex shall be specifically invited." For universities and university colleges, section 6-3 (3) says that: "When an expert assessment is conducted, both sexes shall be represented among the experts." Equally, the question of gender equality must be considered when hiring. Section 44 h says "that the learning environment is well adapted for students of both sexes."³⁶⁴

Policy Instruments

Norway has included gender mainstreaming in its overall strategy for gender equality. Already during the late 1970ies Norway prepared for mainstreaming gender in governmental policies and committed to the mainstreaming approach in the early 1990ies. A significant number of Norwegian actors in research

³⁵⁹ http://www.gender.no/Legislation/National_legislation

³⁶⁰ (Bergqvist et al. 1999: 198). Bergqvist, C., Borchorst, A., Christensen, A-D., Ramstedt-Silén, V., Raam, N.C. and Styrkárdóttir, A. (eds) (1999) *Equal Democracies. Gender and Politics in the Nordic Countries*, Oslo: Scandinavian University Press.

³⁶¹ <https://www.regjeringen.no/en/dep/nfd/contact/press-centre/fact-sheets/fact-sheet-the-legislation-on-representa/id641431/> visited February 22, 2015

³⁶² Comprehensive list of Norwegian gender related legislation available at http://www.gender.no/Legislation/National_legislation

³⁶³ http://www.gender.no/Legislation/National_legislation

³⁶⁴ http://www.gender.no/Legislation/National_legislation

and research funding work with emphasis on gender equality, mainstreaming gender in research and the promotion of research on gender.

Norway is an active member of the Nordic cooperation on gender equality. The **Norwegian Government's Action Plan for Gender Equality 2011-2014**, supports gender **mainstreaming and incorporates** all nine gender equality objectives.

The **Norwegian Research Council** bears national responsibility for all policy-related initiatives as well as monitoring in this field. The Research Council Norway has included a specific gender equality component into calls, funding announcements and programmes as of 2014.³⁶⁵ (...) The RCN seeks to create a framework for increasing the recruitment of women in subjects with a low percentage of women and develop initiatives to boost the proportion of women in tenured academic positions.³⁶⁶

Also on the national level, the Ministry of Education and Research incentive scheme to recruit women to senior-level positions in mathematics, natural science and technology, ran from 2010 to 2014 and sought to encourage institutions to appoint more women to permanent academic positions in STEM fields.³⁶⁷ As a result of the scheme's evaluation, which showed that it did not contribute to a significant increase of women's appointments, and the evaluator's recommendation, it was not continued after 2013.^{368 369}

4. Implementation Approach

The Committee on Gender Balance and Diversity in Research appointed by the Norwegian Ministry of Education and Research³⁷⁰ provides recommendations on national and local measures regarding the integration of gender equality in research and education institutions.³⁷¹ All public research and higher education institutions in Norway are obliged to adopt binding gender equality action plans and are required to give an account of measures that have been implemented.³⁷²

An example of instruments adopted by the Norwegian Research Council (RCN) is the BALANSE initiative (Gender Balance in Senior Positions and Research Management)³⁷³. The initiative supports cultural and structural changes to improve the gender balance at senior level in the research sector through new knowledge, mutual learning and innovative measures.³⁷⁴ In 2014, the Research Council implemented a

³⁶⁵ http://erawatch.jrc.ec.europa.eu/erawatch/export/sites/default/galleries/generic_files/file_0531.pdf

³⁶⁶ Information on specific objectives or instruments to support the implementation of equality-based objectives was unavailable.

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/no/country?section=Overview&subsection=StrResearchSystem

³⁶⁷ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁶⁸ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁶⁹ <http://eng.kifinfo.no/c62967/nyhet/vis.html?tid=86265> visited February 22, 2015

³⁷⁰ See section 2.

³⁷¹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁷² See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf and <http://eng.kifinfo.no/c62447/seksjon.html?tid=62491> (visited January 30, 2015).

³⁷³ See http://www.forskningsradet.no/prognett-balanse/Programme_description/1253964606599 (visited January 30, 2015).

³⁷⁴ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

new policy for gender balance and gender perspectives in research that requires the integration of gender perspectives into all research activities funded by the Council.³⁷⁵

Women researchers' position after maternity leave is guaranteed by law and women with fixed-term contracts have the same maternity rights as those in permanent positions as long as they have been employed six out of ten months.³⁷⁶

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
BALANSE, Initiative on Gender Balance in Senior Positions and Research management, Norwegian Research Council	Individuals & Organisations (all)	Women (2)	Programme Board	2013-2017	Strategy for structural change	3 & 2
Maternity leave regulations in research	Individuals (1 & 2)	Women (2)	Missing	Missing	Work-Life-Balance	2
Incentive scheme to increase share of women in highest positions in STEM fields (2010-2014)	Organisations (3)	Women (2)	Evaluated in spring 2013	4 years	Strategy for structural change	3 & 2
RCN Policy for gender balance and gender perspectives 2013-2015	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change, Awareness raising	3

³⁷⁵ See http://www.forskningsradet.no/en/Gender_issues/1195592877653 (visited January 30, 2015).

³⁷⁶ See http://erawatch.jrc.ec.europa.eu/erawatch/export/sites/default/galleries/generic_files/file_0531.pdf.

Gender Equality Plans	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
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Norway has a rich repertoire of gender equality policy instruments, specifically at the level of operationalization and implementation in the research sector which indicates policy learning from past experiences - that can be classified as transformative action. All instruments but the maternity leave regulations in research target organisations and aim at changing the internal culture and structure towards a more gender-aware environment. Although the Incentive scheme or BALANSE mainly focus upon women as the disadvantaged gender, organisations are identified as the key players for gender equality in science. Several national level actors (such as Gender Balance Committee and Kilden) effectively facilitate awareness raising and knowledge transfer on gender in science and research to stakeholders in the field.

Poland

1. Gender in Science Knowledge 'Input'

There are 18³⁷⁷ public universities in Poland, 25 technical universities, 7 agricultural universities, 9 universities of medicine and 9 maritime and defence universities.³⁷⁸ Moreover, Poland has 83 non-university research institutions. The University of Lodz³⁷⁹ and the University of Warsaw both offer degree programmes in gender studies on a postgraduate level. There is, furthermore, one gender studies centre in Poland; the Women's Studies Centre in Lodz^{380 381}.

2. Actors in Gender Equality

Measures regarding gender equality are not specifically mentioned as part of the Polish research system. However, gender equality for women and men in all spheres of life is guaranteed by the Polish Constitution from 1997. Moreover, in the framework of the EU Equal programme, which was founded by the European Social Fund and ran from 2004-2008, projects aimed at gender equality were launched, especially in the fields of work-life and employment.³⁸²

The United Nations Development Programme (UNDP), the Ministry for Labour and Social Policy, the Warsaw School of Economics, the Polish Confederation of Private Employers 'Lewiatan', Feminoteka Foundation, Derm-Service Pologne and the International Forum for Women drew up a Gender Equality Index, in order to include gender equality in business management.³⁸³ The Ministry of Labour and Social Policy comprises the Division of Dialogue and Social Partnership, which is a supervising unit that acts on behalf of the Polish Government and prepares the yearly reports of the Ministry of Labour and Social Policy.³⁸⁴

The Ministry for Labour and Social Policy established the project "Gender mainstreaming as a tool for changing the labour market" from 2010 to 2012, which aimed to ease the reconciliation of work life and family responsibilities for parents and to counteract the stereotyping of women as less eligible for the labour market, due to their role as mothers and caretakers. Additionally, the EU Directive 2006/54/EC and the Council Directive 2000/78/EC have been implemented by Polish law to set up a legal framework for the equal treatment of women and men in terms of employment and occupation.³⁸⁵

3. Framework

Comment

³⁷⁷ See <http://www.nauka.gov.pl/en/higher-education-institutions/universities.html> (visited January 15, 2015).

³⁷⁸ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pl/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 15, 2015).

³⁷⁹ For more information see <http://www.gender.uni.lodz.pl/aktualnosci.html>.

³⁸⁰ See <http://www.gender.uni.lodz.pl/eng/aktualnosci.html>.

³⁸¹ There are no data available regarding the proportion of women in grade A positions and thus no Glass Ceiling Index for Poland in the She Figures 2012 report.

³⁸² <http://eige.europa.eu/content/gender-equality-index#/country/PL>

³⁸³ <http://eige.europa.eu/content/gender-equality-index#/country/PL>

³⁸⁴ <http://www.mpips.gov.pl/en/social-dialogue/>

³⁸⁵ <http://eige.europa.eu/content/gender-equality-index#/country/PL>

There are a number of regulations on gender equality and work-life-balance in academia, but most of the provisions are not mandatory.

List of Legal Provisions

Polish Labour Code: prohibition of discrimination and protection of women during the pregnancy and maternity leave period.

Act on the Implementation of some regulations of the European Union concerning equal treatment (2010)

Act on financial benefits from social insurance in the case of sickness and maternity (2013): measures on flexitime, paid parental leave, child care facilities and return to work after bringing-up a child.

Ordinance of the Minister of Science and higher Education concerning conditions for work remuneration and award of other work-related benefits for employees of public higher education institutes: Maternity leave and an additional leave to raise children

Act on National Science Centre (NCN) (2010): periods of maternity leave and leave for taking care of children are not included in the calculation of maximum age for grants for young researchers.

Act on higher education (including amendments from 2011): nominees from the science and higher education institutions to the Main Council of Science and higher Education, which has advisory functions to the MNiSW should attempt ‘to balance the share of women and men in the work of the Council’ and that 30% of the Polish Accreditation Committee appointed by the same MNiSW should be women.

The Act on scientific degrees and scientific title and titles in the area of arts (amendments from 2011): Central Committee for Scientific Degrees and Titles is obliged to incorporate in its actions ‘attempts to balance the share of women and men in its work’.

Policy Instruments

Poland does not pursue a gender mainstreaming approach in its policies. **National Actions Plans on Gender Equality** have been set up since 1997 in response to the Beijing Platform for Action.³⁸⁶ Policy targets for 2015 have been set up within the **General Action Plan for Gender Equality**.³⁸⁷ “The law addressing the issue – the **Equal Treatment Act of 2010** – places gender among other grounds of discrimination and approaches gender equality in a minimalist way aimed at fulfilling the commitments related to EU directives. The Act does not correspond with gender mainstreaming standards defined by the Beijing Platform for Action.”³⁸⁸ “As the implementation of gender mainstreaming has not been formalised, the inclusion of a gender perspective into laws and policies depends on the political will of the leaders and on the personal commitment of the head of the national body responsible for gender equality policy area” (Government Plenipotentiary for Equal Treatment).³⁸⁹ EU- directives and policies including gender equality seem to play a crucial role for lobby groups in Poland active in this field, as

³⁸⁶ Ibid.

³⁸⁷ <http://eige.europa.eu/content/gender-equality-index#/country/PL>

³⁸⁸ <http://eige.europa.eu/structures/gender-mainstreaming/poland>

³⁸⁹ <http://eige.europa.eu/laws-policies/gender-mainstreaming/poland>

well as the **European Equal Programme** to fund projects aiming at improving gender equality in different spheres of life, particularly regarding employment and work-life balance.

Despite the absence of a strategic orientation to improve gender balance and equality in higher education and research, “the Polish government is reforming the structure of its scientific organisations, such as the State Accreditation committee, the General Council for Science and Higher Education and the Central Commission for Degrees and Titles to guarantee that there are more women in top-level positions”.

4. Implementation Approach

In Poland, several measures foster the gender balance in the field of science and work as incentives for women to pursue academic careers, especially in the natural sciences. The Foundation for Polish Science runs the **‘POMOST’ (‘BRIDGE’) programme**, which provides a return grant for projects carried out by researchers of either gender raising young children and support for women conducting research projects during pregnancy.³⁹⁰ Moreover, several specific measures are put in place, such as the **‘Girls on technical universities’**-programme (which includes compiling lists of ‘women-friendly’ technical universities), the **‘Girls of the future’**-awards which provides grants for outstanding women researchers or the L’Oreal scholarships for women scientists.³⁹¹ The **START programme** recognises gender when it comes to the maximum age of applicants for grants: a woman can apply until the age of 32 (instead of 30) if she had maternity and/or parental leave.³⁹²

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Foundation for the Polish Science - special program to support young scientists START	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
‘Girls of the Future – in the footsteps of Maria Sklodowska-Curie’ (2009)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
L’Oreal Polska Grants for Women in Science Awards	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2

³⁹⁰ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁹¹ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

³⁹² See http://ec.europa.eu/research/science-society/document_library/pdf_06/poland-research-funding_en.pdf.

POMOST Programme (2010) (Parent-Bridge Research Grant)	Individuals (1 & 2)	Women & Men (1)	Missing	Missing	Work-Life-Balance Career advancement	1
'Girls on technical universities'- Programme (2008)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2

These instruments target the recruitment, retention and the career progression of individuals (predominantly women). Thus, Poland seems to follow the 'inclusion'- or 'reversal'-strategy when it comes to gender equality in the research sector, rather than focusing upon transformative action.

Portugal

1. Gender in Science Knowledge 'Input'

The Portuguese higher education sector comprises of 15 public universities, 15 polytechnic institutes and 19 higher education schools, as well as 35 private universities or university status schools and 39 private polytechnic status schools.³⁹³ There is 1 gender studies centre³⁹⁴ and 2 gender study programmes³⁹⁵ in Portugal. The National Research Council Fundação para a Ciência e a Tecnologia (FTC)³⁹⁶ is the key research funding organization.

Portugal is slightly above European average when it comes to the proportion of women in grade A of the academic career; in 2009, 22.5 % among grade A academics were women (20.5 % in 2002) (She Figures 2012: 91). Portugal is one of the few countries (together with Luxembourg and Sweden) where the Glass Ceiling Index did not decrease but increased over the years, with a value of 1.74 in 2003 and a value of 1.83 in 2009.³⁹⁷

2. Actors in Gender Equality

The Ministry of Education and Science, the Ministry for the Economy, the Observatory for Sciences and Technologies, and the Foundation for Science and Technology (FCT) do not offer programmes for women in science or comprise departments specifically responsible for gender equality.³⁹⁸ The FCT, which reports to the Ministry of Education and Science, however, functions as the main source of research funding in Portugal.³⁹⁹

The main actors in gender equality, which cannot be found within the structure of the research system in Portugal⁴⁰⁰, are the Secretary of State of Parliamentary Affairs and Equality, the Governmental Commission for Gender citizenship and Gender Equality (CIG) and the Commission for Equality in Labour and Employment (CITE). The Consultative Council of the Commission for Citizenship and Gender Equality (CIG) functions as a consultative body in gender equality. There are also Councillors for Equality in each Ministry, as well as inter-departmental teams concerned with gender equality.⁴⁰¹

The Secretary of State of Parliamentary Affairs and Equality is responsible for public policies regarding citizenship, gender equality, domestic violence and human trafficking. It reports to the Minister

³⁹³ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pt/country?section=ResearchPeformers&subsection=HigherEducationInstitutions (visited January 14, 2015).

³⁹⁴ For more information see <http://www.apem-estudos.org/en/index.php>

³⁹⁵ See <http://www.universia.pt/estudos>

³⁹⁶ For more information see <http://www.fct.pt/>.

³⁹⁷ EC She Figures 2012: 96

³⁹⁸ http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf

³⁹⁹ http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pt/country?section=Overview&subsection=StrResearchSystem

⁴⁰⁰ see ERAWATCH country profile Portugal.

⁴⁰¹ <http://eige.europa.eu/apps/gei/content/Gender-Equality-Index-Country-Profiles.pdf>

Assistant and of Parliamentary Affairs.⁴⁰² The Governmental Commission for Citizenship and Gender Equality (CIG) is integrated in the Presidency of the Council of Ministers and reports to the Secretary of State for Parliamentary Affairs and Equality.⁴⁰³ The CIG is responsible for the promotion of gender equality in all areas of political intervention and cooperates with international and European organisations. It provides studies and planning documents to support political decision-making, is involved in awareness-raising activities on discrimination and carries out activities to counteract gender-based violence and support the victims thereof.⁴⁰⁴

The Commission for Equality in Labour and Employment (CITE) is mainly responsible for the promotion of gender equality and non-discrimination in labour, employment and vocational training. This concerns issues such as reconciliation, parenthood and work-life balance. The CITE works directly with employees and employment bodies, and comprises of four members of the state, four members from the trade union confederations and another four members from the employers' confederations.⁴⁰⁵

There is no legal obligation to provide gender equality plans in Portugal. Only two universities in the country have decided to implement such plans.⁴⁰⁶

3. Framework

Comment

The legal framework provides regulations on gender equality and anti-discrimination as well as general provisions for the workplace & work-life-balance. There are no specific provisions for Higher Education. Quotas or national targets and/or other measures to ensure a representative gender balance for researchers are not promoted by the Portuguese Government since the share of female scientists is relatively high in international terms and is on an upward trend.⁴⁰⁷ There is no legal obligation to provide gender equality plans.

List of Legal Provisions

Portuguese Constitution

Labour Code (LC)

Decree-Law 295/2009 on Rules and Standards on Dismissal, Gender Equality and Non-discrimination: gender equality; non-discrimination on the grounds of gender; prohibition of dismissal of pregnant workers, those who have recently given birth and a worker who is breastfeeding, as well as workers on parental leave.

⁴⁰² <http://eige.europa.eu/content/secretary-of-state-of-parliamentary-affairs-and-equality>

⁴⁰³ <http://eurogender.eige.europa.eu/users/comiss%C3%A3o-para-cidadania-e-igualdade-de-g%C3%A9nero-governamental-commission-citizenship-and-gender>

⁴⁰⁴ <http://eurogender.eige.europa.eu/users/comiss%C3%A3o-para-cidadania-e-igualdade-de-g%C3%A9nero-governamental-commission-citizenship-and-gender>

⁴⁰⁵ <http://eurogender.eige.europa.eu/users/commission-equality-labour-and-employment-cite-comiss%C3%A3o-para-igualdade-no-trabalho-e-no>

⁴⁰⁶ Template Portugal

⁴⁰⁷ Researcher's Report Deloitte 2014

Resolution of the Parliament 37/2006 to ratify the ILO Convention concerning part-time work: ratification of the ILO Convention concerning part-time work

Law 3/2011 on Prohibition of Discrimination in the Access to and Exercise of Independent Work: no discrimination in the access to and exercise of independent work.⁴⁰⁸

Resolution of the Council of Ministers 49/2007: principles of good corporate governance in the state business sector, including gender equality; companies should adopt a plan for gender equality with the aim to achieve genuine equality between men and women, by eliminating gender discriminations and promoting policies on reconciliation of private and professional life.

Law 49/2005: changes in Framework Law of the Education System and basic law of the funding of the education system. In its organisational principles it stated that the education system must ensure equal opportunities for both sexes, namely through practices of coeducation and professional guidance, and raising awareness among those involved in the education.

Law 47/2006: assessment, certification and adoption of school textbooks for primary and secondary levels. It defines principles and objectives for what social-educational support must obey regarding the loan or purchase of school textbooks. Among the assessment criteria there is a reference regarding the principle of non-discrimination and gender equality.

Decree-Law 77/2005: the rules of payment of maternity and paternity leaves corresponding to a period of 150 days (amending the previous one dated from 1988).

Decree-Law 91/2009 on parental leave: legal framework on parenting protection within the social security regime and in the welfare subsystem due to the amendment made on the Labour Code in 2009. It enacted the protection of employees in respect to parenting, namely with regard to social security measures (parental leave and respective subsidies). Increase of the compulsory leave for fathers from 5 to 10 days.

Decree-Law 89/2009: The decree regulates parenting protection of employees committed to public functions, integrated in the converging social security regime, within the scope of maternity, paternity and adoption.

Policy Instruments

As of 2007 the Portuguese government agreed to mainstream gender in national and local policies and adopted the definition of the Council of Europe (1999), however the agreement is not binding per law. There is no single, unifying strategy on gender in science. Gender equality is mainly targeted through employment policies and citizenship in general. There are no initiatives or regulations promoting gender balance in academic and research committees. There is no specific, targeted strategy for women in science; there are no targets and no indicators used specifically that would go beyond the figures available in She Figures.

⁴⁰⁸ It overlaps the rulings in 2000/43/CE (implementing the principle of equal treatment between persons irrespective of racial or ethnic origin), 2000/78/CE (that establishes a general framework for equal treatment in employment and occupation) and 2006/54/CE (on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast)).

The **4th National Plan for Equality, Gender, Citizenship and Non-Discrimination 2011** (2014-2017) affirms gender mainstreaming in all policy domains (nothing specific to research!). It recognises gender mainstreaming as one of the three pillars of its strategic approach, and considers it a requirement for good governance: a gender perspective should be transversally integrated in all policy domains.

4. Implementation Approach

There are almost no policies in the field of gender and science in Portugal. The “Equality is Quality” Prize⁴⁰⁹ and the CITE Commission are instruments dealing more with equal opportunities and access to the labour market in general, than gender equality in science. There are, for example no initiatives promoting equal gender balance in academic and research committees, boards and governing bodies and no policies aiming at structural or cultural change in the research sector.⁴¹⁰

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
"Equality is Quality" Prize	Organisations (3)	Women & Men (1)	Yes, every 6 month	>10 (3)	Strategy for structural change	3
CITE - Comissão para a Igualdade no Trabalho e no Emprego	Individuals (1 & 2)	None specifically (3)	Missing	Missing	Missing	1 & 3

Portugal's gender equality policies also referring to science can be seen as a mixed type: the equality award targets organisations runs for a long time ('transformation-model') and the commission addresses individuals, but does not focus upon women specifically. Both of the instruments promote equal opportunities and equal access in the public space (rather than in science).

⁴⁰⁹ See <http://cite.gov.pt/pt/destaques/noticia299.html> (visited January 26, 2015).

⁴¹⁰ See http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf.

Romania

1. Gender in Science Knowledge 'Input'

The Romanian higher education sector includes 56 public universities (including military) and 20 private universities.⁴¹¹ Only one of these universities, the “Babes-Bolyai” University in Cluj-Napoca, offers a gender study programme (MA Gender and Equal Opportunities).⁴¹² The public research sector in Romania comprises 45 national research and development institutes, the Romanian Academy (52 institutes and 14 research centres) and the Academy of Agricultural and Forestry Sciences (17 institutes and centres).⁴¹³ There is one gender studies research centre.⁴¹⁴ The Executive agency for Higher Education, Scientific Research, Development and Innovation Funding (UEFISCDI)⁴¹⁵ (subordinated to the Ministry of National Education) and the Romanian Academy are the main research funding organisations.⁴¹⁶

Romania has the largest proportion of women in grade A positions in the EU: 35.6 % in 2009 (26.2 % 2002), which is well above EU-27 average (2010: 19.8 %) (She Figures 2012: 91). It also has the lowest Glass Ceiling Index in the EU, which was 1.26 in 2009 (1.42 in 2004) (She Figures 2012: 96).

2. Actors in Gender Equality

Various institutions are concerned with gender issues in Romania. The **Department for Children, Women and Social Protection**, for example, was set up by the Office of the Ombudsperson in 1998. The department is responsible for the promotion of rights of women and children.⁴¹⁷

The **Labour Inspection** with its territorial branches mainly monitors the measures aimed at guaranteeing equal opportunities for women and men on the labour market and their respective working conditions. The inspection's work includes the controlling and sanctioning of employers who do not comply with the law on equal opportunities between women and men and works closely with public authorities, such as the labour conflict sections of the Courts.⁴¹⁸

As an autonomous and tripartite body of public interest, the Economic and Social Council (CES) aims to foster a social dialogue between trade unions, employers and the Government in accordance with Law no. 109/1997 on the organisation and functioning of the Social and Economic Council. Other actors concerned with gender equality are the National House of Pensions and Other Social Insurance Rights and Benefits, the Territorial Houses for Pensions and the National Agency for Employment and

⁴¹¹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ro/country?section=ResearchPe rformers&subsection=HigherEducationInstitutions (visited January 19, 2015).

⁴¹² See http://www.ubbcluj.ro/en/programe_academice/masterat/masterat_specializari (visited January 19, 2015).

⁴¹³ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ro/country?section=ResearchPe rformers&subsection=PublicResearchOrganisation (visited January 19, 2015).

⁴¹⁴ See <http://regender.org/intl-centers-for-research-on-women> (visited January 19, 2015).

⁴¹⁵ See <http://uefiscdi.gov.ro/>.

⁴¹⁶ For more information see

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/ro/country?section=Overview& subsection=StrResearchSystem (visited January 19, 2015).

⁴¹⁷ <http://jsri.ro/ojs/index.php/jsri/article/view/353/351>

⁴¹⁸ <http://jsri.ro/ojs/index.php/jsri/article/view/353/351>

vocational Training. The latter is especially concerned with measures promoting equal opportunities for women and men to have access to employment, vocational training and social protection.⁴¹⁹

The National Agency for Equal Opportunities between Women and Men (ANES) reports to the Ministry of Labour, Social Solidarity and the Family. ANES is led by a president appointed by the Ministry of Labour, Social Solidarity and the Family and coordinates the structures for equal opportunities within the ministry. It supports the administration in integrating equal opportunities into national policies and aims to disseminate information on gender equality and to train civil servants regarding gender equality. It monitors the law implementation in the field of equal opportunity and elaborates reports on best practices in gender equality, as well as national reports on gender equality upon international request. Several NGO's in Romania recommend to hire specialised staff for ANES, as it presently consists of personnel from the ministry only.

The Ministry of Labour, Social Solidarity and the Family controls the implementation of legal provisions in its field of action and elaborates programmes, policies and national plans regarding equality on the labour market in collaboration with ministries, other central organs, the Employment Agency (ANOFM) and the National Council of Adult Professional Training. The ministry is also involved in the advancement of programmes and international cooperation in equal opportunities on the labour market, and is responsible for the organising financial resources for such initiatives.

The National Commission in the field of Equal Opportunities between women and Men (CONES) is coordinated by the Ministry of Labour, Social Solidarity and the Family and is supposed to ensure the coordination of district level commissions. Founded in accordance with Ordinance no. 84/19.08.2004 for the completion of Law no. 202/2002 the commission serves to work towards equal opportunities between women and men, e.g. the dissemination of gender mainstreaming within the central public administration, giving recommendations and guidance to the government and providing information and expertise on gender equality.

Several ministries of the Romanian Government handle the issue of gender equality within their field of responsibility. The Ministry of Justice handles all complaints regarding gender discrimination through County (District) Courts, while the Ministry of Health is responsible for making health care and health related matters at the work place available to women and men equally. The application of discrimination penalties in the local public administration falls under the responsibility of the Ministry of Public Administration and Internal Affairs, while the Police Inspectorates handle all cases of domestic violence. The General Direction for Combating Organised Crime and Illegal Drugs works to prevent and combat human trafficking, and the Ministry of Education and Research aims to ensure equal opportunities for women and men within education units and in the curricula thereof.⁴²⁰

3. Framework

Comment

⁴¹⁹ <http://jsri.ro/ojs/index.php/jsri/article/view/353/351>

⁴²⁰ <http://jsri.ro/ojs/index.php/jsri/article/view/353/351>

The legal framework consists mainly in the implementation of EU Anti-Discrimination Law. Gender Equality plans are not based on legislative provisions in Romania. No other measures addressing gender equality **in research** are reported.

List of Legal Provisions

There are no legal provisions regarding the definition of gender mainstreaming. There are no legal provisions regarding the methodology to implement gender mainstreaming into practice. There are no legal provisions on the methodology of monitoring, evaluation, control of the implementing gender mainstreaming.

Anti-Discrimination Act: adaption of the EU directives. However, according to reports, the Act is not being implemented in full.

Government ordinance (Government Ordinance 111/2010): supports career breaks for PhD candidates

Policy Instruments

Romania formally agreed to mainstream gender in all its policies in course of the countries' accession to the EU.⁴²¹ The pace of implementation of gender mainstreaming in Romania was accelerated in the pre- and post- EU accession years (roughly 2005-2008). The post-2008 period recorded a decline in the policy-making and implementation of gender mainstreaming, which culminated with the dissolution of the National Agency for Equal Opportunities, which was restructured as a directorate inside the Ministry of Labour in 2010.⁴²² There are no legal provisions regarding the definition of gender mainstreaming. There are no legal provisions regarding the methodology to implement gender mainstreaming into practice. There are no legal provisions on the methodology of monitoring, evaluation, control of the implementing gender mainstreaming.⁴²³

Measures addressing gender equality explicitly in research cannot be found within the structure of the Romanian research system. The framework of a government ordinance (Government Ordinance 111/2010) supports PhD candidates with 'career breaks'.⁴²⁴

In 2005, Romania approved the National Strategy on Equal Opportunities between Women and Men 2008–2011 and the General Plan of Actions for the implementation of the National Strategy on Equal Opportunities between Women and Men 2008–2011. The national strategy aims to set a series of measures and guarantees designed to eliminate all forms of direct and indirect discrimination and to allow the exercise of human freedom and fundamental rights based on the principle of equal opportunities and treatment of women and men. Also the National Strategy 2010–12 foresees Romania's policy commitments to gender mainstreaming. Gender mainstreaming falls under the responsibility of the Commission for Equal Opportunities between Women and Men. The Commission for Equal Opportunities has ceased to function around 2008.

⁴²¹ EIGE (2014)

⁴²² <http://eige.europa.eu/about/gender-mainstreaming/romania>

⁴²³ <http://www.gwi-boell.de/en/2012/01/30/romania#Legal%20situation>

⁴²⁴ http://ec.europa.eu/research/era/pdf/era_progress_report2013/era_facts_and_figures_new.pdf

“In general, there are no specific policy measures (strategies, programmes, initiatives, etc.) in place to increase the number of women researchers in high-level positions in research, technology and innovation”.

4. Implementation Approach

No data provided.

Sweden

1. Gender in Science Knowledge 'Input'

There are 14 public universities, 19 state university colleges and 16 private institutions (of which 3 are entitled to award PhDs).⁴²⁵ 11 universities offer at least gender study programmes at first-qualification-cycle.⁴²⁶ In addition, Sweden has 14 gender studies centres and during 2007-2011 the Swedish Research Council funded 3 centres of excellence in gender studies. As a continuation of the centres of excellence, GEXcel International Collegium for Advanced Transdisciplinary Gender Studies, a 3-university research platform was established in 2012.⁴²⁷ In Sweden, there are 4 main public research funding organisations.⁴²⁸

Sweden is at the European average with regard to the share of women in grade A academic positions (20 % in 2009, 14 % in 2002) (She Figures 2012: 90/91). However, Sweden's Glass Ceiling Index is higher than the EU-27 average; it was 2.14 in 2009 (She Figures 2012: 96). Sweden is one of the few countries (together with Luxembourg and Portugal) where the Glass Ceiling Index did not decrease but slightly increased since the reference year – it was 2.05 in 2004 (She Figures 2012: 96).

2. Actors in Gender Equality

Since October 2014 (after the parliamentary elections Sept. 2014) the main governmental actor in gender equality within the Swedish research system is the Ministry of Health and Social Affairs. The Minister for Children, the Elderly and Gender Equality is responsible for issues concerning the rights of the child, social services, rights of people with disabilities and gender equality (previously Ministry of Education and Research). The **Swedish Higher Education Agency** and the government-funded **National Secretariat for Gender Research** at Gothenburg University are also important actors within the Swedish research system. The National Secretariat for Gender Research is responsible for the monitoring of research policy from a gender perspective.⁴²⁹ In addition, while most universities in Sweden have Equality Committees, a Delegation on Gender Equality on Higher Education, which was a fix-term committee from 2009 to 2010 set up by the government, funded 37 research and action projects with 47 million SEK in the higher education sector in the field of gender equality, as well as expert reports on gender equality in the sector.⁴³⁰

The **Swedish Higher Education Authority** (UKÄ) is instructed by the government and is responsible for quality assurance in higher education, the legal supervision thereof, the monitoring of efficiency, as well

⁴²⁵ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/se/country?section=ResearchPeformers&subsection=HigherEducationInstitutions (visited January 14, 2015).

⁴²⁶ See for more details <http://www.genus.se/meromgenus/studeragenusvetenskap/> (visited January 14, 2015).

⁴²⁷ For more information see http://www.gexcel.org/about_gexcel.html (visited January 14, 2015).

⁴²⁸ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/se/country?section=Overview&subsection=StrResearchSystem (visited January 14, 2015).

⁴²⁹ <http://www.genus.se/english>

⁴³⁰ <http://www.uhr.se/sv/Framjande-och-analys/Delegationen-for-jamstalldhet/>

as for statistics of the higher education sector. The authority acts on behalf of the government and in accordance with the tasks and the funding provided by the Swedish Government.⁴³¹

The **Swedish Council for Higher Education** is a government agency responsible for providing information on higher education and providing the Swedish Scholastic Aptitude Test (högskoleprovet). The council is also responsible for managing all admissions of students to Swedish universities and university colleges and provides general supports for student administration to these institutions. Moreover, the council aims to promote equal treatment and aims to prevent discrimination at universities.⁴³²

The **Swedish Research Council** reports directly to the Ministry of Education and Research and is responsible for the allocation of research funding, advises the government on all matters related to research and promotes the benefits of the long-term benefits of high quality research. The council promotes gender perspectives and aims to foster gender equality in research.⁴³³

VINNOVA is the Swedish innovation agency under the Ministry of Enterprise, Energy and Communications. It functions as the government's expert in innovation policy and is a contact agency for the government regarding the EU Framework Programme for Research and Development. Its gender equality strategy includes both gender mainstreaming and targeted actions, such as funding programmes related to gender, and expert reports on gender and innovations.⁴³⁴

The **Equality Ombudsman (DO)** is government agency, whose head is appointed by the Swedish Government. The DO monitors compliance with the Discrimination Act and the Parental Leave Act and is authorised to inspect universities in terms of their gender equality and diversity plans. Students and university staff may complain to the Equality Ombudsman, if they consider to have been discriminated against on the grounds of sex, transgender identity or expression, age, religion or other belief, disability, sexual orientation or ethnicity.⁴³⁵

The fixed-term **Delegation for Gender Equality in Working Life** appointed by the Government is responsible for the analysis of gender equality within the Swedish labour market, the collection of best practices regarding gender equality, the counteraction of a difference in pay between women and men, and the promotion of women on the labour market.⁴³⁶

In addition, the Swedish national gender equality conference for universities and university colleges is arranged by Swedish universities annually. It was held at Linköping University in 2014 and will be arranged by Uppsala University in 2015.⁴³⁷

The members of the **Higher Education Appeals Board** are appointed by the Swedish Government. Decisions made in higher education or and in post-secondary vocational education and training may be

⁴³¹ see www.uka.se

⁴³² <http://www.uhr.se/sv/Information-in-English/>

⁴³³ www.vr.se

⁴³⁴ www.vinnova.se

⁴³⁵ www.do.se

⁴³⁶ <http://jamstalldhetiarbetslivet.se/in-english/>

⁴³⁷ http://www.genus.se/english/news/Nyhet_detalj/norm-breaking-in-academia.cid1247406

appealed to the board. Cases of gender discrimination may also be reported to the board.⁴³⁸ The **Swedish University Agency** is the boards host organisation.⁴³⁹

However, offices for gender equality are not based on legal provisions, as the organisation of equality work lies individually within the individual responsibility of each Swedish university. The Discrimination law does not specify the arrangements of equality promotion in organisations and workplaces.

3. Framework

Comment

The legal framework for gender equality in the labour market is very broad & specific. In the Higher Education sector gender balance is addressed. Gender Equality plans are based on legislative provisions, as demanded by Discrimination Law.

List of Legal Provisions

Discrimination Act 2008:267 : Educational institutions such as universities have to prevent discrimination and promote equal treatment. Universities have to make an annual equality plan and follow-up the plans annually.

Higher Education Act 1992:434, §5: equality between men and women shall always be taken into account and promoted in the activities of universities.

Higher Education ordinance 1993: 100: Chapter 4, §5: gender balance in groups making a proposal for teaching appointments, unless there are specific reasons for not reaching equal representation; gender balance if a review is sought from two or more persons, unless there are specific reasons for not reaching equal representation.

Ordinance on Research Councils hiring researchers 1986:364: gender balance in applicants, unless there are specific reasons.

Labour market legislation includes several laws relevant for the broad gender in science field, especially type of contracts, family leave etc., including [The Employment Protection Act \(LAS\)](#); [Employment Act \(MBL\)](#); [Public Employment Act \(LOA\)](#); [Representatives Act](#); [Hours Act](#) ; [Leave Act](#) ; [Study Leave Act](#); [Parental Leave Act](#); [Leave Act of trade](#); [The Law on leave for urgent family reasons](#) ; [Act on the right to leave to due to illness try other work](#); [Sick Pay Act](#); [Work Environment Act](#). It is not possible to summarize these acts for this overview but it is important to underline that law-based provisions to facilitate combining paid work and parenting, applied to all parents, are generous in an European or international comparison.

Policy Instruments

In Sweden, gender mainstreaming is a de facto binding policy approach and the main strategy used to achieve the national gender equality policy objectives.⁴⁴⁰ A national knowledge-sharing platform

⁴³⁸ <http://www.onh.se/inenglish>

⁴³⁹ www.uka.se

⁴⁴⁰ <http://www.government.se/sb/d/4096/a/125215>

provides implementation through guidelines and support for knowledge transfer at state, regional and local level.⁴⁴¹ Also Sweden is an active member of the **Nordic cooperation on gender equality**. The legal bodies focusing on gender equality and anti-discrimination are the Equality Ombudsman (DO) and for the HE sector specifically the Higher Education Appeals Board while the government-funded **National Secretariat for Gender Research** takes responsibility for monitoring research policy from gender perspective and to inform on gender research. Gender Equality plans are legal requirements to universities in Sweden, the Anti-Discrimination Ombudsman makes Guidelines available to universities online and can conduct inspections. Universities and higher education institutions have to produce annually an Equality Plan to prevent discrimination and to actively promote gender equality.

Monitoring and reporting in the Swedish higher education system takes place in multifaceted way, not through simple indicator system. **Universities report annually** to the government on their activities, and all person statistics (e.g. on students and staff) have to be sex-disaggregated by law.⁴⁴² Also regular statistics on doctoral students, universities' financial data are monitored; time-series are available frequently.⁴⁴³ The Swedish Higher Education Agency's statistics database is available in Swedish.

4. Implementation Approach

There are several activities in Sweden regarding gender and science. For example, the Swedish Research Council implemented a strategy for gender equality, 'to strive for gender equality throughout the organisation'.⁴⁴⁴ This also includes the minimum target of a 40 % gender balance in evaluation panels or the objective to ensure the same success rates for women and men for grant applications - for example by only considering active research years (time off for parental leave, sick leave, etc. should be deducted). VINNOVA, the Swedish innovation agency, has implemented several actions regarding gender equality, such as funding programmes related to gender and innovation and expert reports on gender and innovation.⁴⁴⁵⁴⁴⁶ Since 1996, the Swedish government has periodically set up recruitment goals for universities for the proportion of women among new professorial recruitment.⁴⁴⁷ In addition, universities and other higher education institutions are required by law to produce annually an equality plan to prevent discrimination and to work actively to promote gender equality.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
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⁴⁴¹ <http://www.includegender.org/>

⁴⁴² Förordning 2001:100, paragraph 14

⁴⁴³ <http://www.uka.se/statisticsfollowup/statisticsanalysisandfollowup.4.4149f55713bbd917563800010055.html>

⁴⁴⁴ See

<http://www.vr.se/download/18.7e727b6e141e9ed702b356e/1385732536578/Gender+Equality+Strategy+2013.pdf> (visited January 29, 2015).

⁴⁴⁵ See <http://www.vinnova.se/en/Our-activities/Innovativeness-of-specific-target-groups/Individuals-and-Innovation-Milieus/Needs-Driven-Gender-Research-for-Innovation/> (visited January 30, 2015).

⁴⁴⁶ For information about the reports, see <http://www.vinnova.se/en/Our-activities/Innovativeness-of-specific-target-groups/Individuals-and-Innovation-Milieus/Needs-Driven-Gender-Research-for-Innovation/Publications/> (visited January 30, 2015).

⁴⁴⁷ See <http://www.regeringen.se/content/1/c6/21/83/24/6fd30ec0.pdf>.

Equality plans	Organisations (3)	None specifically (3)	Yes	Annually	Strategy for structural change	More 3
Government's recruitment goals for increasing proportion of women among professors	Organisations (3)	Women (2)	Not systematically	Since 1996	Strategy for structural change	3 & 2
Swedish Research Council GE Plan/ Strategy	Organisations (3)	Women & men (1)	Yes (success rates)	Since 2003	Strategy for structural change	3 & 1
Gender equality observers in Swedish RC evaluation panel meetings	Organisations	None specifically (3)	This is a monitoring tool itself	Since 2012	Strategy for structural change	3
Vinnova: Targeted calls	Individuals & Organisations (all)	None specifically (3)	Yes	n.a.	Career advancement	All
Expert reports by Vinnova	Individuals & Organisations (all)	None specifically (3)	Monitoring instrument itself	n.a.	Awareness raising	More 3

All of these exemplified instruments show characteristics of a transformation approach: they are aiming at institutional change and recognise a gender dimension of organisational structures rather than articulating gender inequality exclusively simultaneously with *women's* inequality or women's problems. All in all, considering the national (legal) provisions, such as the obligatory gender equality plans or the government recruitment goals, Sweden's gender equality strategy for the research area fits the definition of the transformation model.

Slovakia

1. Gender in Science Knowledge 'Input'

In the Slovak Republic, there are 23 public universities and 18 private universities.⁴⁴⁸ The key public research organization is the Slovak Academy of Sciences⁴⁴⁹, which comprised of 56 research institutes in 2012.⁴⁵⁰ In contrast, there is only one gender study programme and one gender studies centre (the Gender Studies Centre at the Comenius University in Bratislava)⁴⁵¹ in the Slovak Republic. There are 3 key funding agencies directed by the Ministry of Education, Science, Research and Sports and the Ministry of Economy.⁴⁵²

The proportion of women at the highest academic positions in the Slovak Republic increased significantly since 2002, when the share was only 9.2 % (She Figures 2012: 91). In 2011, 22.7 % of grade A academics were women, which is above EU average (She Figures 2012: 91). The Slovak Glass Ceiling Index also improved notably: it was at 2.9 in 2004 and was only marginally above EU average in 2011 (1.9) (She Figures 2012: 96).

2. Actors in Gender Equality

The **Department of Gender Equality and Equal Opportunities** works within the **Ministry of Labour and Social Affairs** and presents an annual report to the government. The department is responsible for forming those policies by the Slovakian Government, that concern gender equality and equal treatment. It also drafts strategic and policy documents in the field of gender equality and aims to counteract violence against women.⁴⁵³ The **Support Centre for Equal Opportunities** will be set up within the department, in order to assist the department with the coordination of the implementation of horizontal priority equal opportunity.⁴⁵⁴

The **Council of Government of the Slovak Republic for Human Rights, National Minorities and Gender Equality** serves as a permanent advisory body of the Slovakian Government in terms of human rights, the rights of national minorities, ethnic groups, equal treatment and gender equality. The Committee on Gender Equality is one of the eight committees of the Council of Government of the Slovak Republic for Human Rights, National Minorities and Gender Equality.⁴⁵⁵

Offices for gender equality are not based on legal provisions.

⁴⁴⁸ See <http://www.minedu.sk/vysoke-skoly-v-sr/>.

⁴⁴⁹ See <http://www.sav.sk/>.

⁴⁵⁰ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/sk/country?section=Overview&subsection=StrResearchSystem (visited January 15, 2015).

⁴⁵¹ For more information see <http://www.fphil.uniba.sk/index.php?id=5258> (visited January 15, 2015).

⁴⁵² See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/sk/country?section=Overview&subsection=StrResearchSystem (visited January 15, 2015).

⁴⁵³ <http://eige.europa.eu/content/gender-equality-index#/country/SK>

⁴⁵⁴ <http://www.nsrr.sk/en/horizontalne-priority/rovnost-prilezitosti/>

⁴⁵⁵ <http://eige.europa.eu/content/gender-equality-index#/country/SK>

3. Framework

Comment

Slovakia has no legislation prohibiting discrimination because of participation in power or in decision-making processes. There are no separate statutory regulations in support of specific measures promoting the establishment of equal opportunities. The legal framework provides basic provisions on gender Equality but no regulations in Higher Education. Gender equality is secured by the Slovak constitution (2001) and the Labour Code Law (no. 311/2011).

List of Legal Provisions

Gender equality is guaranteed by the **Slovak Constitution (2001)**, **labour Code law (law No 311/2011)** and the **Antidiscrimination law (law No 365/2004)**.

Policy Instruments

On 8 April 2009, the government approved the **National Strategy of Gender Equality for the Period of 2009–2013**, the fundamental policy document of the Slovak government in the field of gender equality. The Strategy commits the Government of the Slovak Republic to promote equality between women and men as an important factor in the development of democracy and the realisation of human rights in order to fulfil obligations under the Lisbon Strategy as well as international treaties.⁴⁵⁶ On the most general level, the document defined equality of women and men as the cross-sectional, horizontal and general socio-political priority. The ambition of the national strategy is to incorporate the aspect of gender equality as a legally binding approach in the process of shaping and implementing policies at all levels and stages of policy management in order to develop tools, methods and mechanisms that help to include gender equality in all aspects of social life.⁴⁵⁷

In 2010, within the frame of the document for the national strategy, the **National Action Plan (NAP) to Promote Gender Equality for the Period of 2010–2013** was adopted (approved on 12 May 2010 by the government resolution No. 316). It focuses on the four basic areas defined by the strategy: economy, social affairs and healthcare; family and government family policy; public and political life, participation and representation; research, education, media and culture. The basic objective of the NAP is to create the general environment, as well as effective mechanisms, tools and methods of implementing gender equality into all areas of society's life. The strategy constitutes the fulfilment of objectives included by the Slovak Republic Government in the Manifesto for the Period 2006–2010, to promote in its policy equality between women and men and follow the Lisbon Strategy and other international conventions.

The Slovak Republic does not have a direct strategy on gender in science but its government has introduced a number of laws, initiatives and programmes aimed at raising the proportion of women in top-level positions in research, technology and innovation (RTD).

⁴⁵⁶ http://ec.europa.eu/euraxess/pdf/research_policies/country_files/Slovak_Republic_Country_Profile_RR2014_FI_NAL.pdf

⁴⁵⁷ Ibid.

Framework Programme on Equal Opportunities since 2002, this programme covers all European policies designed to equality between men and women.⁴⁵⁸

Information on monitoring and indicators to measure progress in this field is unavailable.

4. Implementation Approach

Data missing.

⁴⁵⁸ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0491>

United Kingdom

1. Gender in Science Knowledge 'Input'

In 2013, there were 115 universities, 50 other higher education institutions⁴⁵⁹ and 2 private universities in the United Kingdom. There are 36 gender study programmes on a master level, students can choose from. In contrast to the 119 independent, non-university research organisations, the United Kingdom has 22 gender studies centres.⁴⁶⁰ There are 7 research councils that act as the main research funding organisations.⁴⁶¹

The proportion of women at grade A level in academia was at 17.5 % in 2006 (15.1 in 2003), which is below EU-27 average (She Figures 2012: 91). The UK's Glass Ceiling Index is the fifth highest in the EU, with a value of 2.23 in 2006 and it only slightly decreased since 2004 (2.35) (She Figures 2012: 96).

2. Actors in Gender Equality

The **Science and Technology Committee** is appointed by the House of Commons and examines administration, expenditure and policy of the Government Office for Science and associated public bodies. The committee promotes gender equality awareness among public research funders and encourages them publish and disseminate their specific actions towards equality and diversity.⁴⁶²

The **Government Equalities Office** is responsible for all issues related equality, including gender equality, for the UK government.⁴⁶³ The **Scottish Government Equalities Unit** performs the same function for gender equality in Scotland.⁴⁶⁴

The **Equality and Human Rights Commission** (EHRC), an independent, government funded body, promotes and monitors human rights in England, Scotland and Wales. It aims to prevent discrimination on the grounds of "age, disability, gender, race, religion and belief, pregnancy and maternity, marriage and civil partnership, sexual orientation and gender reassignment"⁴⁶⁵. Responsible for the monitoring of human rights in Northern Ireland is the Equality Commission for Northern Ireland.⁴⁶⁶

The **Higher Education Funding Council for England** (HEFCE) aims to encourage higher education institutions to set up retention and recruitment schemes. The council also supports institutions of higher education to establish and promote human resource strategies through funding and advice in the framework of the Rewarding and Developing Staff in HE initiative.⁴⁶⁷

⁴⁵⁹ See

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/gb/country?section=ResearchPerformers&subsection=HigherEducationInstitutions (visited January 14, 2015).

⁴⁶⁰ See <http://www.gender-studies.org/en/#uk> (visited January 14, 2015).

⁴⁶¹ For more information see <http://www.rcuk.ac.uk/> (visited January 14, 2015).

⁴⁶² <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmsctech/701/70102.htm>

⁴⁶³ <http://www.equalities.gov.uk/>

⁴⁶⁴ <http://www.scotland.gov.uk/topics/people/equality>

⁴⁶⁵ <http://www.equalityhumanrights.com/>

⁴⁶⁶ www.equalityni.org

⁴⁶⁷ ec.europa.eu/euraxess/pdf/research_policies/country_files/United_Kingdom_Country_Profile_RR2013_FINAL.pdf

The **Equality Challenge Unit** (ECU) is funded through UK higher education funding bodies, which include HEFCE, and is a registered charity. It aims to promote diversity and equality for staff and students alike at higher education institutions across the UK.⁴⁶⁸ The ECU's Athena SWAN Charter scheme recognises universities' or research institutes' commitment to advancing women's careers in STEM. In order to become a member of the Charter these institutions must comply with and promote principles that foster diversity and gender equality within the institution and promote organisational structures that pave the way for equality.⁴⁶⁹

Higher education institutions, as well as private sector companies are generally required to comply with the Equality Act 2010.⁴⁷⁰ The **Research Council UK** also requires applicants to become engaged in gender and diversity aspects and promote these among staff members and in management activities at research institutions and universities. These requirements are retained in the RCUK Statement of Expectations for Equality and Diversity.⁴⁷¹

The **National Institute of Health Research** (NIHR) is a leading funding body for research in science, funded by the Department of Health.⁴⁷² Since 2011 all medical schools applying for NIHR Biomedical Research Centres and units funding are required to have achieved the Athena SWAN Charter for women in science Silver Award.⁴⁷³

Finally, the **Women's Business Council** functions as an advisory body for the government and businesses in terms of the promotion of women into executive positions and women returning into work life.⁴⁷⁴

Neither are Gender Equality plans in the UK are based on legislative provisions, nor are offices for gender equality based on legal provisions.

3. Framework

Comment

The legal framework provides regulations on gender equality applicable on the Higher Education Sector that gives a framework for higher education institutions but no mandatory rules exist.⁴⁷⁵

List of Legal Provisions

Equality act 2010 (2010) provides a legislative framework to advance equality of opportunities for all.

The Equality Act 2010 broadens the Public Equality Duties to cover all protected groups (except Marriage and Civil Partnership). Section 149 requires public bodies like the University to:

⁴⁶⁸ www.ecu.ac.uk

⁴⁶⁹ <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmsctech/701/70105.htm#n84>

⁴⁷⁰ http://gender-competence.eu/files/State_of_the_Art_Report.pdf

⁴⁷¹ <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmsctech/701/70105.htm#n84>

⁴⁷² <http://www.nihr.ac.uk/about/structure.htm>

⁴⁷³ <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmsctech/701/70105.htm#n84>

⁴⁷⁴ <https://www.gov.uk/government/groups/124>

⁴⁷⁵ <http://www.equality.admin.cam.ac.uk/>

1. Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act.
2. Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
3. Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Universities are required to publish their Equality & Diversity Information Reports. This incorporates data on staff and student matters.

The **Equality Act 2010** introduced positive action provisions, including voluntary positive action measures in recruitment and promotion. It is, therefore, up to higher education institutions to decide for themselves whether to exercise the option of taking measures to improve the representation of female researchers in top level positions and on decision making bodies....

Public sector equality Duty places a responsibility on public bodies, including universities and research councils, to consider gender issues in shaping policies, delivering services and employing staff.

Children and Families Bill - Shared parental leave and pay due to come into act in December 2014 - Shared Parental Leave is a new right that will enable eligible mothers, fathers, partners and adopters to choose how to share time off work after their child is born or placed. This could mean that the mother or adopter shares some of the leave with her partner, perhaps returning to work for part of the time and then resuming leave at a later date.

Policy Instruments

Mainstreaming gender formally is a legal obligation in the United Kingdom,⁴⁷⁶ hence the Government's policies lend towards mainstreaming gender. Yet, the government's policy documents "re-opened the debate about whether to focus on 'equality' or 'fairness'. The 'equality' approach might be described as deciding how far specialist services are needed for gender equality based on how much evidence there is of gender inequality for either women or men. In the 'fairness' approach, the preferred strategy is making sure workforce management, service provision, procurement etc. accommodates the needs of as great a range of people as possible, and deciding whether different provision is needed based on business benefits."⁴⁷⁷

The **Equality Duty of 2010**⁴⁷⁸ introduced positive action provisions through which HEI establishments voluntarily can take up positive action in recruitment and promotion. The act underlies the work of the Equality Challenge Unit whose mission is specific to Higher Education⁴⁷⁹, but not only to gender diversity. "The Equality Act 2006 places a positive duty on all public bodies including the University to promote equality between women and men and to eliminate unlawful discrimination and harassment. The University is required to have in place (from April 2007) a **Gender Equality Scheme** (GES) setting out

⁴⁷⁶ EIGE (2014)

⁴⁷⁷ http://gender-competence.eu/files/State_of_the_Art_Report.pdf

⁴⁷⁸ <https://www.gov.uk/equality-act-2010-guidance>

⁴⁷⁹ <http://www.ecu.ac.uk/about-us/>

the ways in which the University will meet the general duty, outlined above, and specific duties”.⁴⁸⁰ These schemes/plans are usually limited to recruitment, retention and fulfilling legal obligations, without often including reference to the gender dimension in research and innovation.

Overarching frameworks for research and employment for researchers also reflect gender inequalities: ‘The UK’s **Research Excellence Framework (REF) 2014** also reflects the need to consider gender balance in all policies and procedures in higher education institutions’⁴⁸¹; the UK ‘**Concordat to Support the Career Development of Researchers**’ sets out standards for the employment and funding of research staff. The document refers to gender twice: Once in reiterating the legal obligations of the Equality Act and stating that “Employers should aim for a representative balance of gender, disability, ethnicity and age at all levels of staff, including at supervisory and managerial level.”⁴⁸²

More recently, academic associations play a major role in the development of strategic orientations for gender and diversity in science and research (since 2011); e.g. aim of the **Diversity Programme of the Royal Academy of Engineering** is to increase diversity and improve access to science, engineering and technology (SET) professions for candidates with low income backgrounds, disabled people, certain ethnic minorities and women, all of whom are currently under-represented within engineering.⁴⁸³ The Royal Society strives to increase diversity in science across groups with ‘protected characteristics’ (these are listed in the Equality Act 2010): age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, religion or belief, sex, and sexual orientation⁴⁸⁴ and attributed responsibility for regular monitoring of diversity statistics to its Equality and Diversity Advisory Network (EDAN). Actors in the field of diversity and gender equality work in close relation with each other. The programmes of the Royal Academy of Engineering and Royal Society are funded until 2016 but the objectives are unclear in terms of numerical objectives, specifically to gender.⁴⁸⁵

Apart from this, the Higher Education Funding Council for England (HEFCE) encourages the institutions to have formal human resources strategies and provides funding to support these strategies under the **Rewarding and Developing Staff in HE initiative**.⁴⁸⁶

In addition in 2012 the Royal Society of Edinburgh launched a separate strategy for Scotland ‘**Tapping all our Talents. Women in science, technology, engineering and mathematics: a Strategy for Scotland**’.⁴⁸⁷ In its **Programme for Action**, the strategy specifies short-term (1 year), medium-term (3 years) and long term objectives (10 years). The strategy addresses the low numbers of women in STEM positions and STEM senior management, including senior female academics, the unequal distribution of care-work between the sexes as well as the low female representation on public and private sector decision-making bodies.

⁴⁸⁰ <http://www.admin.ox.ac.uk/eop/gender/policy/>

⁴⁸¹ http://ec.europa.eu/euraxess/pdf/research_policies/country_files/United_Kingdom_Country_Profile_RR2013_FINAL.pdf

⁴⁸² <https://www.vitae.ac.uk/policy/vitae-concordat-vitae-2011.pdf>

⁴⁸³ <http://www.raeng.org.uk/policy/diversity-in-engineering/bis-programme/professional-engineering-institutions>

⁴⁸⁴ <https://royalsociety.org/about-us/diversity/>

⁴⁸⁵ <http://www.raeng.org.uk/policy/diversity-in-engineering/bis-programme;>

<https://royalsociety.org/news/2012/more-diverse-scientific-workforce/>

⁴⁸⁶ [ec.europa.eu/euraxess/pdf/research_policies/country_files/United_Kingdom_Country_Profile_RR2013_FINAL.p](http://ec.europa.eu/euraxess/pdf/research_policies/country_files/United_Kingdom_Country_Profile_RR2013_FINAL.pdf)

df

⁴⁸⁷ http://www.royalsoced.org.uk/cms/files/advice-papers/inquiry/women_in_stem/tapping_talents.pdf

At the level of operational instruments, e.g. the **Juno Project** or **Athena Swan** operate in the United Kingdom and Ireland.⁴⁸⁸

4. Implementation Approach

In the United Kingdom, numerous implementation measures addressing gender in the research area are in place. The Athena Swan Charter fosters **cultural changes across organisations** and encourages academic organisations in the field of natural sciences and technology to **build gender equality policies**. To become a member of the Charter, universities or research institutes must accept and promote six Charter principles (e.g. a change in cultures and attitudes across the organisation to tackle unequal representation).⁴⁸⁹ The Athena Swan Charter will be brought together with the Gender equality charter mark in April 2015, with the latter being based on the Athena SWAN model, but addressing gender inequalities, imbalance and discrimination in the arts, humanities and social sciences.⁴⁹⁰

The Daphne Jackson Trust Fellowships combine mentoring, retraining and research and aim at the **re-integration of women and men into academia after a career break**.⁴⁹¹ Other measures include the Rosalind Franklin Award⁴⁹² that annually **honours outstanding women researchers in STEM** or the Dorothy Hodgkin Fellowship⁴⁹³ for **outstanding, young scientists who require a flexible working pattern** due to circumstances such as parenting. The YourLife campaign⁴⁹⁴ addresses gender equality in **student education**, particularly in the field of natural sciences and technology, and the RAEng/Royal Society/BIS programme focuses on increasing diversity in the scientific workforce.⁴⁹⁵ As a general measure, the Think, Act, Report-programme seeks to encourage organisations in the public and private sector to **share how they promote gender equality**.⁴⁹⁶

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
The Athena SWAN Charter	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Gender equality charter mark	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Daphne Jackson Trust Fellowships	Individuals (1)	Women & men (1)	Missing	Missing	Career advancement	1
Rosalind Franklin Award - Royal	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2

⁴⁸⁸ <http://www.iop.org/policy/diversity/initiatives/juno/index.html>

⁴⁸⁹ For more details see <http://www.ecu.ac.uk/equality-charter-marks/athena-swan/> (visited January 28, 2015).

⁴⁹⁰ See <http://www.ecu.ac.uk/equality-charter-marks/gender-equality-charter-mark/> and <http://www.ecu.ac.uk/equality-charter-marks/charter-marks-explained/athena-swan-and-gender-charter-mark/> (visited January 28, 2015).

⁴⁹¹ See <http://www.daphnejackson.org/>.

⁴⁹² See <https://royalsociety.org/awards/rosalind-franklin-award/> (visited January 28, 2015).

⁴⁹³ See <https://royalsociety.org/grants/schemes/dorothy-hodgkin/> (visited January 28, 2015).

⁴⁹⁴ See <http://www.yourlife.org.uk/>.

⁴⁹⁵ See <https://royalsociety.org/news/2012/more-diverse-scientific-workforce/>.

⁴⁹⁶ See for more details <https://www.gov.uk/government/policies/creating-a-fairer-and-more-equal-society/supporting-pages/think-act-report>.

Society Dorothy Hodgkin Fellowship Yourlife	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	1 & 2
	Individuals (1 & 2)	Women and men (1)	Missing	Missing	Career advancement	1
RAEng/ Royal Society/ BIS programme	Organisations (3)	None specifically (3)	4 years (1)	A 18- month policy study will run alongside	Awareness raising	3
Think, Act, Report	Organisations (3)	None specifically (3)	Missing	Missing	Awareness raising	3

The implementation approaches aimed at institutional and cultural change in science address various levels of the academic system in the UK and pursue a transformative approach: the Athena SWAN charter is an acclaimed instrument continuously widening its impact and the Gender equality charter mark, as well as the recently started BIS programme on diversity and research in scientific workforce mark the intention to transform organisational culture nonetheless. However, there are as many single, softer measures exclusively focusing upon women's career advancement, showing the characteristics of the 'inclusion'- and 'reversal'-model of gender equality in science.

Non-EU Countries

United States of America

1. Gender in Science Knowledge 'Input'

There are 1704 public universities in the United States and 1714 private universities in addition. Furthermore, there are a total of 360 special focus institutions (e.g. 53 medical schools and medical centres).⁴⁹⁷ Approximately 700 gender study programmes and approx. 700 gender studies research centres exist.⁴⁹⁸ The USA has three major leading research funding organisations (based on size of public R&D expenditures); the US Department of Defense, the Department of Health and Human Services, and in terms of basic research, the National Science Foundation is the key institution.⁴⁹⁹

2. Actors in Gender Equality

In terms of general gender equality, the **White House Council on Women and Girls** is a key actor. The purpose of the Council is, to ensure that each of the agencies in which they are charged takes into account the needs of women and girls in the policies they draft, the programmes they create and the legislation they support.⁵⁰⁰ The **National Science Foundation** is particularly focused on gender equality and diversity in science and STEM as illustrated by its ADVANCE⁵⁰¹ programme and initiation of the recent 'Roadmap for Action for North America'.⁵⁰²

3. Framework: legal, strategic and operational

Relevant legal provisions

The federal law prohibiting sex discrimination in educational institutions is Title IX of the Educational Amendments Act of 1972 (amending the Higher Education Act of 1965). This act is codified as Title 20, United States Code, Chapter 38, Sections 1681-1686. The act was also amended by the Civil Rights Restoration Act of 1987 ("Title IX"). The law states that "no person in the United States shall on the basis of sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance. The amendment in 1987 expanded the definition of program or activity to include all the operations of an educational institution, governmental entity or private employer that receives federal funds.

Title IX forbids sex discrimination in all university student services and academic programs including, but not limited to, admissions, financial aid, academic advising, housing, athletics, recreational services, college residential life programs, health services, counseling and psychological services, Registrar's

⁴⁹⁷ Cf. <http://classifications.carnegiefoundation.org/summary/basic.php>

⁴⁹⁸ Cf. <http://userpages.umbc.edu/~korenman/wmst/programs.html>

⁴⁹⁹ Cf.

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/us/country?section=Overview&subsection=BasicChar

⁵⁰⁰ Cf. <http://www.whitehouse.gov/administration/eop/cwg/about>

⁵⁰¹ Cf. <http://www.nsf.gov/crssprgm/advance/>

⁵⁰² Cf. <http://www.nsf.gov/od/iaa/activities/gendersummit/g3-roadmap-highlights.pdf>

office, classroom assignments, grading and discipline. Title IX also forbids discrimination because of sex in employment and recruitment consideration or selection, whether full time or part time, under any education program or activity operated by an institution receiving or benefiting from federal financial assistance ("recipient"). There are nine exceptions listed in the act most of which are not relevant to UCSC. The only exceptions that may apply, deal with fraternities, sororities and father-son and mother-daughter activities. Following the passage of Title IX, the U.S. Department of Education (the "Department") issued its regulations for compliance with Title IX. The Office for Civil Rights ("OCR") in the Department is responsible for enforcing Title IX. OCR's responsibility to ensure that institutions that receive federal funds comply with Title IX is carried out through compliance enforcement. The principle enforcement activity is the investigation and resolution of complaints filed by those alleging sex discrimination. In addition, through a compliance review program of selected recipients, OCR is able to identify and remedy sex discrimination which may not be addressed through complaint investigation. OCR has discretion to select an institution for review in order to assess its compliance with Title IX even absent the filing of a complaint. If the investigation indicates there has been a violation of Title IX, OCR will attempt to obtain voluntary compliance and negotiate appropriate remedies. Title IX also protects people from discrimination on the basis of sex in employment and employment practices in educational programs or activities receiving federal financial assistance. The prohibition encompasses, but is not limited to, recruitment, advertising, hiring, upgrading, tenure, firing, rates of pay, fringe benefits, leave for pregnancy and childbirth, and participation in employer sponsored activities. Because employment discrimination is not a part of the Title IX Coordinator/Sexual Harassment Officer ("Title IX Officer") duties, I will focus on its application to the UCSC student population. OCR requires each recipient to issue notices of nondiscrimination. It recommends using one statement to comply with the requirements of Title VI, Title IX and Section 504 regulations. This combined notice must contain two elements: a statement of nondiscrimination on the basis of which OCR enforces civil rights statutes; and the identity by name or title, address and telephone number of the employee(s) responsible for coordinating the agency's compliance efforts. Following its passage, Title IX has been interpreted by the federal government to cover all activities and programs of educational institutions receiving federal funds and all education programs of institutions whose primary mission is not education. In 1984 however, the U.S. Supreme Court, in *Grove City College v. Bell* ruled that Title IX was restricted to only those specific programs or activities funded with federal money. As a result, discrimination in many programs or activities was no longer prohibited. On March 22, 1988, Congress enacted the Civil Rights Restoration Act of 1987 over President Reagan's veto. This act overturned the Supreme Court's earlier decision and restored Title IX coverage so that once again it applies to the entire institution regardless of where federal funds are utilized.

Although some schools are exempt from coverage with regard to admissions, all schools must treat their students without discrimination on the basis of sex. Courts have interpreted Title IX to prohibit institutions from, on the basis of sex: (1) denying any person aid, benefits or services in all areas, including course offerings, extracurricular activities such as student organizations and competitive athletics, financial aid, facilities and housing; (2) providing different aid, benefits, or services or provide them in a different manner; (3) subjecting any person to separate or different rules of behavior, sanctions, or treatment, including rules pertaining to appearance; (4) providing significant assistance such as facilities or act as a sponsor to any organization or person which discriminates on the basis of sex in providing any aid or benefits to students or employees; and (5) limiting any person in the

enjoyment of any right, privilege, advantage or opportunity. In sum, schools cannot use sex as a category to classify students.”⁵⁰³

Policy Instruments

There is a strategy on gender in science in the USA, the “OPENING DOORS TO QUALITY EDUCATION AND HIGH-PAYING CAREER OPPORTUNITIES IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATH”-strategy. It contents: “Women employed in science, technology, engineering, and math (STEM) fields earn on average 33 percent more than their non-STEM counterparts, but they represent only one-quarter of all workers in these sectors. As one way to address this disparity, the Administration intends to take new steps to expand workplace flexibility policies at select science and technology (S&T) agencies. Additionally, the U.S, in collaboration with private and non-profit stakeholders, is announcing a number of new steps, including:

Improving data collection and dissemination: The National Aeronautics and Space Administration (NASA) and the US Department of Agriculture (USDA) intend to compile data on women’s participation in selected Federal S&T programs, including to identify any disparities.

Building the skilled mentor pool: The Department of Energy will expand women in STEM mentoring efforts to office sites across the country, the National Science Foundation (NSF) will connect its scientists with opportunities to mentor girls, and the Environmental Protection Agency will work with organizations to encourage STEM mentoring for college women.

Harvey Mudd College and Piazza who launch [WitsOn](#), a 6-week online program connecting students with leading female mentors from industry and academia. Additionally, Causecast, a technology firm offering online tools for corporate volunteering, will launch GIT Inspired!, a campaign supporting girls in technology.

Encouraging research-based STEM teaching: Discovery Education will announce the development of S & EM POWER!, a program dedicated to tapping into girls’ passions, interests, and capabilities, while empowering them with the tools to succeed in STEM fields.

Broadening access to online/mobile STEM skills training: Connect2Compete, a nonprofit launched by the Federal Communications Commission, will expand outreach efforts to include specific collaboration with women & girl-serving groups. NASA and the U.S Geological Survey will each pursue new efforts to include natural disaster data in educational materials to highlight real world applications of STEM – an essential link for women and girls.

Finally, Creative Commons and the Open Course Ware Consortium will establish a task force to investigate the impact of STEM-related open educational resources on girls.”⁵⁰⁴

⁵⁰³ Cf. <http://www2.ucsc.edu/title9-sh/titleix.htm>

⁵⁰⁴ Cf. <http://www.whitehouse.gov/the-press-office/2012/09/24/fact-sheet-equal-futures-partnership-and-united-states-commitments-expan>

4. Implementation Approach

In the United States of America, many diverse instruments promoting gender equality within the science sector are in place. One of the key programmes is ADVANCE. The goal of the National Science Foundation's (NSF) ADVANCE programme⁵⁰⁵ is to increase the representation and advancement of women in academic science and engineering careers, thereby contributing to the development of a more diverse science and engineering workforce. ADVANCE encourages institutions of higher education and the broader science, technology, engineering and mathematics (STEM) community, including professional societies and other STEM-related not-for-profit organisations, to address various aspects of STEM academic culture and institutional structure that may differentially affect women faculty and academic administrators. As such, ADVANCE is an integral part of the NSF's multifaceted strategy to broaden participation in the STEM workforce, and supports the critical role of the Foundation in advancing the status of women in academic science and engineering.

Since 2001, the NSF has invested over \$130M to support ADVANCE projects at more than one-hundred institutions of higher education and STEM-related not-for-profit organizations in forty-one states, the District of Columbia, and Puerto Rico, including twenty-four EPSCoR jurisdictions.

Established in 2011, the Gender Summit has become the foremost forum for engaging top-level researchers, policy makers, science and innovation leaders, and other and stakeholders in STEM to address gender issues in research and innovation. The aim of the third Gender Summit, which was focused on North America, was to connect all relevant stakeholders in a Call to Action to improve diversity in the Science, Technology, Engineering and Mathematics (STEM) workforce and leadership, and to promote greater inclusion of biological sex and gender considerations or the "gender dimension" in research content and process. The key output of the event was "A Roadmap for Action for North America".⁵⁰⁶

The Office of Research on Women's Health (ORWH) is part of the Office of the Director of NIH. ORWH works in partnership with the 27 NIH Institutes and Centers to ensure that women's health research is part of the scientific framework at the NIH—and throughout the scientific community.⁵⁰⁷ Similarly, the National Institutes of Health has invested \$10.1 million in supplemental funding to bolster the research of 82 grantees to explore the effects of sex in preclinical and clinical studies⁵⁰⁸ and the Foundation for Gender Specific-Medicine supports the investigation of the ways in which biological sex and gender affect normal human function and the experience of disease. One of the discipline's pioneers, Marianne J. Legato, FACP, MD established the Foundation as a continuation of her work with The Partnership for Gender-Specific Medicine at Columbia University.⁵⁰⁹ Besides, the Society for Women's Health Research (SWHR) is the thought leader in research on biological differences in disease and is dedicated to transforming women's health through science, advocacy, and education. Founded in 1990 by a group of physicians, medical researchers and health advocates, SWHR aims to bring attention to the variety of diseases and conditions that uniquely affect women. Thanks to SWHR's efforts, women are now

⁵⁰⁵ Cf. <http://www.nsf.gov/crssprgm/advance/>

⁵⁰⁶ Cf. <http://www.nsf.gov/od/iia/activities/gendersummit/>

⁵⁰⁷ Cf. orwh.od.nih.gov/about/index.asp

⁵⁰⁸ Cf. <http://www.nih.gov/news/health/sep2014/od-23.htm>

⁵⁰⁹ Cf. <https://gendermed.org/about-us/>

routinely included in most major medical research studies and scientists are considering gender as a variable in their research.⁵¹⁰

On a local level, the current Gendered Innovations project was initiated at Stanford University, July 2009. In January 2011 the European Commission set up an expert group, “Innovation through Gender,” aimed at developing the gender dimension in EU research and innovation. The U.S. National Science Foundation joined the project January 2012. Gendered Innovations has also collaborated in the development of the 2010 genSET *Consensus Report* and the United Nations Resolutions related to Gender, Science and Technology passed March 2011.

The Gender & Leadership course Purdue explores the social constructions of gender, gendered organizations, gendered leadership, obstacles to women’s full participation in leadership positions, the intersections of gender with race, ethnicity, class and those effects on leadership, and a framework for gender equity. It explores diversity (gender, race, and ethnicity) and its effect on the majority and non-majority populations with respect to leadership positions, particularly within an engineering professional context.⁵¹¹

In addition, there is US2020, a new organisation developed from a White House call to generate large-scale, innovative solutions to our STEM education challenge, with a focus on increasing access to STEM careers for girls, under-represented minorities, and low-income children. Announced by President Obama at the National Science Fair, US2020 will match 1 million STEM mentors with students at youth-serving non-profits by the year 2020, creating moments of discovery for the next generation of STEM professionals, from kindergarten through college. US2020 will be incubated by Citizen Schools, a national non-profit organisation focused on expanding learning time for middle school students across the country, through mid-2014.⁵¹²

Moreover, the Career-Life Balance (CLB) Initiative (instituted in 2012) is an ambitious, ten-year effort to take the best family-friendly practices among individual NSF programmes and implement them across NSF. In 2013, NSF worked to advance more women in Science and Engineering Careers by offering supplemental funding opportunities within the ‘Graduate Research Fellowship Program (GRFP)’, the ‘Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE) Program’, the ‘Faculty Early Career Development Program (CAREER)’, and to postdoctoral researchers funded through NSF grants. Supplemental funding for the GRFP and CAREER programmes offers additional gender-neutral funding for medical and family leave, salary support for additional research assistants. In the case of ADVANCE, supplement funds are awarded to institutions to, for example, facilitate dual-career hires on campuses attracting diverse talent to their professoriate.⁵¹³

Instrument	Target	Gender	Monitoring	Timing	Type of Model practices
ADVANCE	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change

⁵¹⁰ Cf. http://www.womenshealthresearch.org/site/PageServer?pagename=about_main

⁵¹¹ Cf. <https://engineering.purdue.edu/WIEP>

⁵¹² Cf. <https://us2020.org/>

⁵¹³ Cf. <http://www.nsf.gov/career-life-balance/>

Gender Summit	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
Office of Research on Women's Health (ORWH)	Organisations (3)	Women (2)	Missing	Missing	Strategy for structural change	3 & 2
Supplemental awards apply sex and gender lens to NIH-funded research	Individuals & (1 & 2)	None specifically (3)	Missing	Missing	Strategy for structural change Awareness raising	All
The Foundation for Gender Specific-Medicine	Individuals & Organisations (all)	None specifically (3)	Missing	Missing	Strategy for structural change Awareness raising	More 3
The Society for Women's Health Research (SWHR)	Individuals & Organisations (all)	Women (2)	Missing	Missing	Strategy for structural change Awareness raising	More 2
Gendered Innovations	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change Awareness raising	3
Gender & Leadership course Purdue	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change Awareness raising	3
US2020	Individuals & (1 & 2)	Women (2)	Missing	Missing	Career advancement	More 2
Career-Life Balance (CLB) Initiative	Organisations (3)	Women (2)	Missing	Missing	Work-Life-Balance Strategy for structural change Career advancement	3 & 2

The majority of these analysed instruments aim at structural and cultural change within higher education and/or research institutions, indicating a transformative implementation approach. Interestingly, several instruments include more than one practice and for example simultaneously address issues regarding researcher's work-life-balance, structural change or career advancement (predominantly women's career advancement) or aim to raise awareness for gender inequalities.

Australia

1. Gender in Science Knowledge 'Input'

In Australia, there are 41 public and 2 private universities⁵¹⁴. 35 universities in Australia offer undergraduate courses of an "applied" subject e.g. applied mathematics. All Australian universities are comprehensive and there is no tradition of applied science universities. In total, Australia has two gender study programmes, a Bachelor of Gender and Diversity⁵¹⁵ and a Graduate Certificate of Gender Studies⁵¹⁶. In 2010-2011, business enterprise research and development (BERD) accounted for the majority (58%) of GERD, 27 % of GERD was performed in the Higher Education sector, and 12 % in public research organisations.⁵¹⁷ There are approx. 40 independent medical research institutes and 42 cooperative research centres in Australia⁵¹⁸. Furthermore, the following eight gender studies research centres exist:

- Australian National University (ANU), Gender Institute⁵¹⁹
- James Cook University, Women's Studies Research Group, School of Arts and Social Sciences⁵²⁰
- Monash University, Centre for Women's Studies and Gender Research, School of Social Sciences, Faculty of Arts⁵²¹
- The University of Adelaide, The Fay Gale Centre for Research on Gender⁵²²
- The University of Melbourne, Gender and Women's Health, Melbourne School of Population and Global Health⁵²³
- The University of Newcastle Research, Centre for Gender, Health and Ageing⁵²⁴
- University of South Australia, Research Centre for Gender Studies, Hawke Research Institute⁵²⁵
- University of Sydney, Department of Gender and Cultural Studies, School of Philosophical and Historical Inquiry, Faculty of Arts and Social Sciences⁵²⁶.

2. Actors in Gender Equality

There are several actors in Australia promoting gender equality in science. **The Australian Government Office for Women**, as part of the Department of the Prime Minister and Cabinet, ensures that a whole-of-government approach is given to providing better economic and social outcomes for women. To support the work of the Prime Minister and the Government, the Office for Women influences policy, legislation Cabinet and Budget decision-making to ensure women's interests are considered across

⁵¹⁴ Cf. <http://stories.scienceinpublic.com.au/wp-content/uploads/Factsheet-6-the-australian-science-and-technology-system.pdf>

⁵¹⁵ Cf. <http://myuniversity.gov.au/UndergraduateCourses>

⁵¹⁶ Cf. <http://myuniversity.gov.au/PostgraduateCourses>

⁵¹⁷ Cf.

http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/au/country?section=Overview&subsection=BasicChar

⁵¹⁸ Cf. <http://stories.scienceinpublic.com.au/usa/the-australian-science-and-technology-system/>

⁵¹⁹ See for more information: <http://genderinstitute.anu.edu.au/page/about-gender-institute>

⁵²⁰ See for more information: http://www.jcu.edu.au/sass/swcw/JCUPRD_021265.html

⁵²¹ See for more information: <http://artsonline.monash.edu.au/womens-and-gender-studies/>

⁵²² See for more information: <http://www.adelaide.edu.au/gender/>

⁵²³ See for more information: <http://cwhgs.unimelb.edu.au>

⁵²⁴ See for more information: <http://www.newcastle.edu.au/research-and-innovation/centre/gha>

⁵²⁵ See for more information: <http://www.unisa.edu.au/Research/research-Centre-for-Gender-Studies/>

⁵²⁶ See for more information: http://sydney.edu.au/arts/gender_cultural_studies/

government; provides high level advice to the Minister Assisting the Prime Minister for Women; Provides national leadership on a range of priority issues including safety for women, supporting women's economic empowerment, and supporting women's leadership; engages closely in inter-department and inter-government forums; consults with a range of key stakeholder groups, including Government agencies, women's sector, business, academics and civil society broadly and supports Australia's international engagement on gender equality issues, including fulfilling international reporting obligations (the Convention on the Elimination of All Forms of Discrimination Against Women), and representing Government at international forums, such as the United Nations and Asia-Pacific Economic Cooperation.⁵²⁷ The **Department of Industry, Innovation, Science, Research and Tertiary Education** published in 2011 the Australian Government's Research Workforce Strategy (RWS) which is concerned with gender equality in the Research and Innovation workforce. In 2011, **the Commonwealth Scientific and Industrial Research Organisation**, Australia's largest employer of researchers, made a commitment to remove barriers to the promotion of highly skilled women and to increase incentives to encourage women to return to the workforce after a period of maternity leave.⁵²⁸ The **Australian Research Council** and the **Australian Research Committee** also promote gender equality in science. The **National Health and Medical Research Council (NHMRC)** found that, when monitored against criteria, less than 50% of their administering institutions were deemed "satisfactory" in their gender equality policies.⁵²⁹ The NHMRC will be changing their policies for administering institutions based on these findings. They have a **Women in Health Science Committee** which focuses on encouraging women to remain in medical research. The aim of the Women in Health Science Working Committee is to gain a better understanding of the issues that face women researchers in health and medical research in terms of career progression and retention to enable NHMRC to identify mechanisms that could be implemented to overcome these issues.⁵³⁰ The NHMRC collect data according to gender.⁵³¹ The **Prime Ministers Science Engineering and Innovation Council** is concerned with participation.⁵³² The **Australian Academy of Technological Sciences and Engineering** has a policy statement of gender equality.⁵³³ Further, the **Australian Academy of Science** has appointed the "SAGE Committee": "the Academy continues to be concerned by the under-representation of women in science and has established the Science in Australia Gender Equity (SAGE) Forum Steering Committee. The steering committee aims to examine strategies that could address this imbalance and be widely implemented."⁵³⁴ Finally, **Universities Australia** (the Australian equivalent of rectors' or university directors' conferences) established a 'Strategy for Women' (2011-2014) and Australia is "committed to fully utilising the skills and capabilities of all members of its workforce and to continue to address the challenges facing women who enter and contribute to higher education. It will support ongoing efforts by its members to bring about employment equity and an inclusive culture, building on the equity achievements of past years."⁵³⁵

⁵²⁷ Cf. <http://www.dpmmc.gov.au/women/>

⁵²⁸ Cf. <http://theconversation.com/a-breakthrough-for-women-in-science-764>

⁵²⁹ Cf. <https://www.nhmrc.gov.au/media/newsletters/ceo/2014/gender-equity-australian-health-and-medical-research>

⁵³⁰ Cf. <https://www.nhmrc.gov.au/research/women-health-science>

⁵³¹ Cf. <https://www.nhmrc.gov.au/research/women-health-science/2013-funding-outcomes-gender-summary-findings>

⁵³² See

http://www.academia.edu/3664766/STEM_Country_Comparisons_International_comparisons_of_science_technology_engineering_and_mathematics_STEM_education_Marginson_Tyler_Freeman_and_Roberts

⁵³³ See <http://www.atse.org.au/Documents/policy/gender-equity-policy-2013.pdf>

⁵³⁴ Cf. <https://www.science.org.au/sage-forum>

⁵³⁵ Cf. http://planipolis.iiep.unesco.org/upload/Australia/Australia_Universities_Strategy_Women.pdf.

3. Framework: legal, strategic and operational

List of relevant legal provisions

Workplace Gender Equality Act 2012;

principal objectives⁵³⁶:

- requires an annual public report
- to promote and improve gender equality (including equal remuneration between women and men) in employment and in the workplace; and
- to support employers to remove barriers to the full and equal participation of women
- in the workforce, in recognition of the disadvantaged position of women in relation to employment matters; and
- to promote, amongst employers, the elimination of discrimination on the basis of gender in relation to employment matters (including in relation to family and caring responsibilities); and
- to foster workplace consultation between employers and employees on issues concerning gender equality in employment and in the workplace; and
- to improve the productivity and competitiveness of Australian business through the advancement of gender equality in employment and in the workplace.

Sex Discrimination Act 1984⁵³⁷;

gives effect to Australia's obligations under the 'Convention on the Elimination of All Forms of Discrimination Against Women' and certain aspects of the International Labour Organisation (ILO) Convention 156. Its major objectives are to

- promote equality between men and women
- eliminate discrimination on the basis of sex, marital status or pregnancy and, with respect to dismissals, family responsibilities, and
- eliminate sexual harassment at work, in educational institutions, in the provision of goods and services, in the provision of accommodation and the delivery of Commonwealth programs.

Policy Instruments

Published by then Department of Innovation, Industry, Science and Research in 2011, the Australian Government's Research Workforce Strategy (RWS) states "the most pressing challenge facing Australia's research workforce in future years is to ensure that the supply of research skills keeps pace with escalating demand from all sectors of our economy. To meet this challenge it is critical that we not only look to expand the supply of research skills to our workforce from both international and domestic sources but effectively draw on and utilise the skill sets we already possess. Australia is currently not effectively harnessing the contributions of key groups such as women and Indigenous Australians to its research workforce; a situation which is not only inequitable but undermines our ability to benefit from the unique knowledge and attributes that these groups have to offer". This is part of the "Powering

⁵³⁶ Cf. <https://www.dss.gov.au/our-responsibilities/women/programs-services/economic-security/the-workplace-gender-equality-act-2012>

⁵³⁷ Cf. <http://www.comlaw.gov.au/Series/C2004A02868>.

Ideas national agenda and budget”, a package of targeted research, innovation and science measures with the goal of “inculcating a stronger culture of innovation and strengthening the capabilities that underpin innovative activity across our economy. That is, by: lifting levels of business research and development (R&D) investment; building more and stronger research collaborations within Australia and between Australia and other countries; and improving the human and physical resources available to research organisations to undertake world-class research and innovation.”⁵³⁸

Since 1995, following on from the Fourth World Conference on Women in Beijing, gender mainstreaming has been adopted as a strategy for gender equity by many countries, including Australia.⁵³⁹ The Australian Government committed to strengthening the provision of gender analysis, advice and mainstreaming across Government to ensure women’s issues and gender equality are taken into consideration in policy and program development and implementation.⁵⁴⁰

Furthermore, Universities Australia committed to promoting gender equality in science and established the ‘Strategy for women: 2011-2014’, which focuses on the career trajectories of women and mainly uses gender ratios as policy measures.

4. Implementation Approach

In Australia, several policy measures are put in place to promote gender equality in the science domain. For example, the ‘Go8 consideration of merit relative to opportunity’ is a consistent approach to the incorporation of the principle of consideration of merit relative to opportunity within employment-related decisions for academic and professional staff within the Group of Eight universities (G O8).⁵⁴¹ The South Australia’s Science Action Plan is a strategy aiming at increasing the participation of women in STEM in South Australia, and the Queensland State Government developed and implemented a strategy to promote science, engineering and technology to women and girls, and to retain women in these fields of education and work (‘Smart Women-Smart State’)⁵⁴². The strategy involved a range of methods, including policy and program delivery, to engage women and girls at different points of their lives. The Women in Science Enquiry Network Inc (WISENET) was established to increase women’s participation in the sciences and to link people in different branches of science and those working towards a more participatory and socially useful science⁵⁴³ and the ‘Inspiring Women Program’ features a suite of integrated initiatives including fellowships, internships with industry and a dedicated web portal.⁵⁴⁴ Further, the ANU Fellowship for Gender Equity in Science is Australia’s first major fellowship designed to

⁵³⁸ Cf.

<http://www.industry.gov.au/research/ResearchWorkforceIssues/Documents/ResearchSkillsforanInnovativeFuture.pdf>

⁵³⁹ Cf. http://www.dpac.tas.gov.au/divisions/csrt/information_and_resources/gender_analysis

⁵⁴⁰ Cf.

http://www.dpac.tas.gov.au/divisions/csrt/information_and_resources/gender_analysis/international_agreement

⁵⁴¹

For more information see:

http://www.hr.uwa.edu.au/_data/assets/pdf_file/0008/2205449/ConsiderationofMeritRelativetoOpportunityinEmploymentRelatedDecisions.pdf

⁵⁴² Cf. <http://www.irma-international.org/viewtitle/43200/>

⁵⁴³ Cf. <http://www.wisenet-australia.org/about/bursary/>

⁵⁴⁴ Cf. <http://www.premier.vic.gov.au/media-centre/media-releases/10782-new-program-delivers-career-support-for-women-scientists.html>

help scientists build their careers after taking time off to look after their children has been launched at The Australian National University (ANU).⁵⁴⁵ The SAGE Forum is a national university sector group formed earlier this year under the aegis of the Australian Academy of Science with the initial aim of investigating the development of an Athena Swan type programme for Australia. A national workshop is being held in late November with this specific objective (with support of the Office of the Chief Scientist). Examples of best practice include Monash University and The Walter and Eliza Hall Institute of Medical Research (WEHI). ‘Women in Science AUSTRALIA’ is a widely based network, including aiming to connect women in science across every professional sector – research, industry, academia, education and government – and provide resources and information to enhance their professional development.⁵⁴⁶ Women in Technology, or WiT, was formed in 1997 and represents the interest of all women in the fields of Information Technology and Biotechnology. WiT aims to promote the achievements of women in the technology industries via relevant events, programs, awards and networks that also provide opportunities for WiT members to grow and develop their skills.⁵⁴⁷ Moreover, there is a range of initiatives across Australia regarding gender equality in innovation. For example, there is the Women in Innovation and Technology Awards in South Australia, sponsored by the collaborative South Australian grouping of government, industry and local media, which aim to connect “women working in all areas of innovation and technology and creating a sustainable network of members focused on the advancement of women in non-traditional industries and roles”.⁵⁴⁸

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
Go8 consideration of merit relative to opportunity	Organisations (3)	None specifically (3)	Missing	Missing	Strategy for structural change	3
South Australia's Science Action Plan	Individuals & Organisations (all)	Women (2)	Missing	Missing	Strategy for structural change	More 2
Smart Women–Smart State Strategy (Queens Land)	Individuals & Organisations (all)	Women (2)	Missing	Missing	Career advancement	2
Women in Science Enquiry Network Inc (WiSENet)	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Inspiring Women Program	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
ANU Fellowship for Gender Equity in Science	Individuals (1 & 2)	None specifically (3)	Missing	Missing	Career advancement Work-Life-	All

⁵⁴⁵ Cf. <http://news.anu.edu.au/2014/07/23/new-fellowship-for-gender-equity-in-science/>

⁵⁴⁶ See for more information: www.womeninscienceaust.org.

⁵⁴⁷ See for more information: <http://www.wit.org.au>.

⁵⁴⁸ Cf. <http://www.wit-sa.org>.

SAGE GENDER CURRENT BEST PRACTICE AND NEW IDEAS Forum EQUITY: ISSUES, WOMEN in Science AUSTRALIA Women in Technology, or WiT Women in Innovation and Technology Awards	Organisations (3)	None specifically (3)	Missing	Missing	Balance Strategy for structural change	3
	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2

The analysed instruments for Australia are mostly career advancement policy measures, focusing on women and particularly on women's recruitment and career progression in the STEM field. However, initiatives as the SAGE Forum or the Go8 consideration of merit relative to opportunity show characteristics of the transformative implementation approach and are strategies for structural change.

Mexico

1. Gender in Science Knowledge 'Input'

Mexico has 9 public federal universities, 34 public state and 91 private universities. In addition, there are 50 polytechnic universities. There is a total of 4 gender study programmes. Further, there are 27 non-university research institutions. In addition, Mexico has 6 gender studies research centres.

2. Actors in Gender Equality

The **National Counsel for Science and Technology** (CONACYT) and the **National Institute for Women** (INMUYERES) are the key actors promoting gender equality in science in Mexico. In addition Mexico's biggest public universities – National Autonomous University of Mexico, Metropolitan Autonomous University and the Polytechnic National Institute – focus on gender and equality.

The **National Counsel for Science and Technology** (CONACYT) is in charge of promoting scientific research. It is also in charge of the National System of Researchers. The **National Institute for Women** (INMUYERES) and the universities are institutions that work towards promoting gender equality in their science departments. INMUYERES is further responsible for the budget and the indicators of gender equality.

3. Framework: legal, strategic and operational

List of relevant legal provisions

Federal Law: The Law on Science and Technology regulates the grants the Federal Government provides to promote, strengthen, develop and consolidate scientific research, technological development and innovation in general in the country. The Second Article of this Law promotes the equitable participation of women and men in all spheres of the National System of Science, Technology and Innovation and promotes the inclusion of gender perspective transversally across these areas. Article 12 supports policies for scientific research that are equitable and non-discriminatory towards women. These changes are viewed as a first step towards a national strategy.

Policy Instruments

Gender mainstreaming is one of the three cross-cutting strategies of the Mexican government for 2013-2018. In 2011, there was an amendment to the first article of the Political Constitution of the Mexican States that established that every person in the United Mexican States shall enjoy the human rights recognised in the Constitution and the international treaties signed by the Mexican State, as well as that every person shall enjoy the individual guarantees granted. It also forbids any type of discrimination motivated by ethnic origin, gender, age, disabilities, social condition among others. The fourth article was also amended to establish that men and women are equal before the law.

There is no national strategy on gender and science in place. However, Mexico has a national strategy for gender equality (PROIGUALDAD), which also includes some guidelines for the educational and research system. Changes to the Science and Technology Law have taken place regarding the inclusion of gender equality in the science sector.

In 2001 the National Institute of Women was created. Its functions include the promotion of gender perspective in the national plans for development, in the spending of the federal government, in the public policies, and in specific public sector and institutional programs. Its main role is to generate, implement and evaluate the National Program for Equality and Non-discrimination against Women (PROIGUALDAD, which translates into PROEQUALITY). Besides requiring that gender equality be incorporated into public programmes and procedures across every institution and in every level of public administration, it has also fostered the creation of new laws to promote equal opportunity.

4. Implementation Approach

The National Scholarship Program aims to out-balance the unequal access to higher education between men and women, especially in natural science, technology, mathematics and physics. This programme is monitored every three month by the Public Education Secretary, based on indicators such as women’s enrolment in science, technology, mathematics and physics. It is based on the PROIGUALDAD strategy. Also based on PROIGUALDAD, the gender equality and non-discrimination labour market program includes training on good job procedures and the “Institutional support for scientific, technological and innovation activities” program gives funding for single mothers who want to further pursue their tertiary education. The latter is monitored by National Counsel for Science and Technology (CONACYT), which conduct its monitoring on the basis of numbers of women that received funding in each state, the percentage of women that received funding from the total of applications received and the number of indigenous women that received funding.

Instrument	Target	Gender	Monitoring	Timing	Type of practices	Model
National Scholarship Program	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement	2
Gender Equality and Non-discrimination in labour market program	Individuals (1 & 2)	Missing	Missing	Missing	Missing	More 2
“Institutional support for scientific, technological and innovation activities”	Individuals (1 & 2)	Women (2)	Missing	Missing	Career advancement Work-Life-Balance	2

All of these instruments indicate an ‘inclusion’- and/or ‘reversal’-implementation approach; they target individuals and predominantly women. They are career advancement-measures, however, the “Institutional support for scientific, technological and innovation activities” also include measures aiming at an improved work-life-balance (through reconciliation).