

Equality Challenges in Higher Education

“8th European Conference on Gender Equality
in Higher Education” – Content and Conclusions

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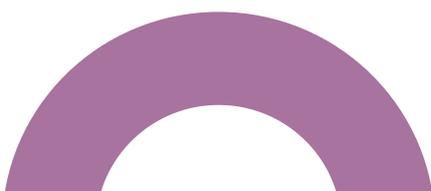
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Higher Education” – Content and Conclusions

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Preface



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The 8th European Conference on Gender Equality in Higher Education was successfully held in September 2014 in Vienna. More than 380 scientists and practice-oriented professionals from 36 countries and five continents participated in the conference and shared their gender-equality perspectives in the European higher education and research area, in order to move towards the long-term goal of developing one joint European strategy for gender equality. The discussions proved that combining scientific evidence and manifold practical experience guarantees action-oriented results which contribute to the further development of measures in higher education policy.

A forward-looking topic was chosen for the conference, taking into account national and international experts' opinions: Building Futures – Equality Challenges in higher Education: Encouraging Theory and Practice Dialogues.

In order to shape a gender-equal future, indicative positioning and aligned European strategies are essential. The European Commission and the Member States are well on their way towards achieving this goal, due to their established practice (Horizon 2020 and the European Research Area).

The Austrian Federal Ministry of Science, Research and Economy aligns its gender equality initiatives with European and national agreements. There are several reasons for this, such as, as a matter of course, to promote fairness between the sexes, to improve quality in higher education and research sustainably, but also to make an essential contribution to society and the economy. The Austrian higher education institutions have great and effective gender equality measures at their disposal. For instance, the outcome-oriented budgeting system includes one gender equality goal which evidently boosts the impact of gender equality measures.

The performance agreements with the universities and research institutions include aligned strategic provisions for gender equality. The legal framework concerning gender equality adopted in the University Act is effective. The universities for applied sciences and the private universities have likewise introduced legal provisions regarding gender equality.

The action-oriented recommendations from the conference provide a valuable basis for the advancement of a gender-fair Austrian higher education and research area.



Elmar Pichl, Director General

Head of Directorate General
for Higher Education
Austrian Federal Ministry of Science,
Research and Economy

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1 Introduction

The *European Conferences on Gender Equality in Higher Education* have been bringing regularly together hundreds of gender equality practitioners, scientists, academics, researchers, academic leaders, civil servants and government officials from different countries in Europe and beyond every two to three years since 1998¹. The conferences provide a unique international forum for networking and the discussion and exchange of information, experiences, policies and research findings from universities, higher education institutions and non-university research institutions.²

The 8th *European Conference on Gender Equality in Higher Education* took place in September 2014 in Vienna. The central objective of this event was to take a creative look to the future, hence its title: *Building Futures – Equality Challenges in Higher Education: Encouraging Theory and Practice Dialogues*. The basis was a comprehensive determination of the gender equality situation in science and academia against the background of an impressive history of gender equality (policy) – 15 years of gender mainstreaming in Europe and an almost 20-year history of gender equality policy research



and political debate since the Fourth World Conference on Women in Beijing. Over the course of this period, a large number of equality measures have been implemented in science and academia across Europe. At the same time, trends like globalisation and governance reform (new public management) are shaping the academic landscape and continually creating new challenges for equality policy.

The goal of the conference was to ascertain the status quo and gather current experiences with gender equality policy in science and academia



and to use these as the basis for taking a creative look to the future. It looked at developments on various policy levels, namely at the organisational, national and European levels. In doing so, it placed particular emphasis on encouraging the dialogue between theory and practice as well as on giving a platform to debates that concentrated on the practical relevance of theoretical discourse and on the theory-based reflection on the practical experiences of gender equality practitioners at universities, higher education institutions and research institutions.

The *8th European Conference on Gender Equality in Higher Education* focussed on three key topics in the gender equality in science and academia context:

1. Reduction of vertical and horizontal segregation (underrepresentation of women in STEM subjects, integration of men in female-dominated sectors).
2. Asymmetric gender culture in organisations (incl. changing the dominant culture in science and academia, compatibility of research/higher education and private life, structural barriers for women).
3. Integration of a gender dimension in teaching and research.

The conference documentation is structured as follows: Chapter 2 outlines and describes the core developments in higher education policy in recent years, which also constitute the framework for gender equality (policy). This provides the necessary background for the subsequent chapters, which summarise the core discussions and findings of the conference and address the following topics: governance and management (Chapter 3), research funding (Chapter 4), integration of gender in teaching and research (Chapters 5 and 6), career models, promotion requirements and the situation for women at the start of their careers (Chapter 7), working conditions in science and research (Chapter 8) and the prevailing notion of the ideal scientist (Chapter 9). The final chapter contains a summary of open questions which

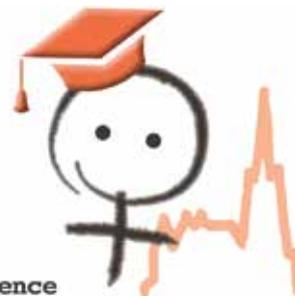
might serve as potential topics for future conferences. It concludes with a discussion of the central challenges in the gender equality context (Chapter 10).

Any reference to specific presentations is indicated by a footnote containing the names of the authors and the title of the presentation. The book of abstracts, all poster presentations and a selection of full papers can be downloaded from the conference website.³

8th European Conference on Gender Equality in Higher Education 2014

Facts & Figures

- 388** delegates (11 % of whom male) from
- 36** countries and
- 5** continents
- 3** keynote speeches
- 2** roundtable discussions with **11** participants
- 4** poster sessions with a total of **37** poster presentations
- 5** workshop sessions
- 37** sessions with **117** paper presentations



**8th European Conference
on Gender Equality in Higher Education**

September 3-5, 2014 · Vienna University of Technology, Austria

<http://gender2014.conf.tuwien.ac.at>

¹ The previous conferences were held in Helsinki (1998), Zurich (2000), Genoa (2003), Oxford (2005), Berlin (2007), Stockholm (2009) and Bergen (2012), with local universities as hosting organisations advised by an international advisory group

² The European Network on Gender Equality in Higher Education, and its EQ-UNI electronic platform supports this exchange between conferences by providing information on gender equality policy activities, research findings and pertinent conferences in Europe and beyond. The network connects over 500 members from over 30 countries. If you are interested in subscribing to eq-uni, please send an e-mail with the text SUBSCRIBE EQ-UNI to majordomo@helsinki.fi.

³ <https://gender2014.conf.tuwien.ac.at/programme>

2 Gender Equality in a Changed Context

The development of gender equality policy in science and academia is closely tied to changes in society, to the restructuring of the global scientific and academic landscape, to the changes in European and national research and higher education policy. The long-observed transition of highly developed societies into knowledge societies gained importance with the signing of the Treaty of Lisbon (2009), which set the political course with regard to the formation of a European internal research market or European Research Area (ERA).⁴ Central concerns here include the assurance of free mobility for researchers and the unhindered exchange of research findings. At the top of the agenda lies the maximum realisation and mobilisation of research and innovation potential to secure the competitiveness of the European Union in the global marketplace.

The close link between economic and research competitiveness is also reflected in the growing relevance of international rankings.⁵ The so-called Shanghai Ranking is of particular relevance in the science and research context. Originally compiled to determine the global standing of China's top universities,⁶ this and other comparable rankings are now used in the global comparison of universities and higher education institutions. While the actual ranking methods, which are based on only a few quantified indicators, are hotly debated (Shin et al. 2011), they nonetheless place European science and research policy under some pressure, particularly since European universities and higher education institutions tend to fare differently in international comparisons and US institutes continue to dominate among the top 100 in world rankings.⁷

The Treaty of Lisbon continued a trend in European higher education policy that had already been instigated by previous reform projects. Ten years prior to the signing of the Lisbon Treaty, the Bologna Process had initiated a Europe-wide race in the so-called "competition for the best minds". With the harmonisation of

degree architectures and establishment of Europe-wide recognition of degree qualifications, universities and higher education institutions had to enhance their profiles, establish their strategic positioning and define their unique selling points in the academic and higher education marketplace. The implementation of these reforms brought the attractiveness and internal diversity of the European education system to the fore, but at the same time also revealed a serious lack of resources at its universities and higher education institutions. Some individual states subsequently adopted the policy of making budget and resource allocations dependent on national ranking systems. In doing so, they expedited the much-debated transformation of public education institutions into "entrepreneurial universities" (Clark 1998).

The auditing of universities and research institutions using economic criteria is also linked to the pressure to justify public expenditures that has been on the rise since the 1980s (Powell 1997). This pressure encouraged the implementation of the new public management (NPM) approach now in place at universities and non-university institutions in virtually all countries in Western Europe. Under this approach, private sector management techniques and practices are applied within administrative and management bodies in higher education and research institutions. With the switch to contract-based management, the principle of management by objectives – on the basis of metric performance indicators and control parameters – has established itself in this sector. Proponents see the growing formalisation of decision processes as a contribution towards greater transparency. Critical voices point to the continuing informalisation and control of decisions and the distribution of resources by the powers that be.

In parallel to the institutional reforms within science and research, the framework and assessment of the actual work are also

changing. The concept of “excellence” plays a crucial role in this regard. Excellence as national higher education and research strategy defines the institutional framework for a career in science, academia and research. This ostensibly focuses on the implementation of meritocratic principles in science, academia and research, whereby traditional quality standards of course also still need to be met. In reality, new measurement standards are becoming established in the academic and research system. Competition in science, academia and research is increasingly viewed in the market economy sense – based on principles like output orientation, the breaking down of research findings into least publishable units, strategic publication planning (“A” journals), research niche building and the assessment of ability based on the amount of third party funding raised. Researchers are already diagnosing the detrimental effects on the epistemic culture (e.g. in the natural sciences: Felt, Fochler 2012). The discourse on excellence is changing the normative research culture (Matthies, Zimmermann 2009) and shaping the notion of the ideal character for science and academia as that of an “enterprising self” (Bröckling 2005), which empirical analyses predominantly show to indicate traits of the male gender habitus (Beaufays, Kraus 2005).

Critics also point further to the lack of reflexivity with regard to the two central premises of the excellence debate: firstly, that excellence can be measured and can be assessed as a characteristic or performance “in isolation” from social attributions and/or context factors, and secondly that excellence is promoted by market-based forms of research competition in which the “best minds” will prevail. Gender theory analyses indicate that a competition-based approach to research, whose proponents focus on accumulating indicators of excellence, tends to cement existing inequalities more than it resolves them. One conference delegate summarised this problem succinctly with the question “Can excellence be gender neutral?”. In the competition

for career opportunities in science and academia, certain resources would appear at any rate to be a determining factor, e.g. flexibility in working hours and geographic mobility. These resources are unevenly distributed across the genders. A further problem lies in the fact that the characteristics of the “ideal scientist” continue to be associated with stereotypical male attributes. These influence assessments in peer review processes and prevail against objectivity and standardisation measures in performance assessments (EK/EC 2004). Measures to formalise recruitment or objectify the decision basis, which were introduced in connection with the managerialisation of universities, thus remain susceptible to social bias. The gender bias is – and remains – a central form of such bias.

Against the background of the changes outlined above – European higher education and research policy, institutional reform, indirect forms of gender discrimination through changes in the academic and scientific landscape and career terms – it is easy to appreciate the challenges facing gender equality policies in higher education and non-university research institutions. These are also taken up by the gender equality goals set for the European Research Area (ERA). The ERA’s goal is to dismantle the existing imbalance to the disadvantage of women and to realise in particular the following changes:

- Increase the share of women in all areas of and at all levels of the hierarchy in science, academia and research
- Remove the structural barriers for women that prevent a career in science, academia and research (incl. an increase in the share of women in decision-making bodies)
- Promotion of the gender dimension in all disciplines and areas (incl. non-university/ industry research)
- Improve the compatibility of career or a degree (science, academia and research) with family commitments and responsibilities.



Awareness of the gender equality problem in science, academia and research is growing both at EU and at national level. In particular, people bemoan the “waste of talent” that arises when women do not opt for or subsequently leave the STEM disciplines. Yet despite this commitment to gender equality goals in principle, universities and research institutions continue to follow a set of heterogeneous sub-

goals whose focus lies on safeguarding their own competitive ability. With this comes the risk that gender equality goals will fall behind or will only be considered if linked with instrumental value, e.g. if they include a solution to another problem (e.g. to the lack of highly qualified people in the technical and natural sciences sector).

4 http://europa.eu/lisbon_treaty/full_text/index_de.htm

5 <http://www.euburo.de/era.htm>

6 <http://www.shanghairanking.com/aboutarwu.html>

7 <http://www.shanghairanking.com/ARWU2014.html>

3 Governance

Characteristic of new public management (NPM) or new managerialism in the higher education sector is the approach of management by objectives. At the 2014 conference, experiences with NPM in different countries (France, Germany, Austria, Sweden and the UK) and their associated gendered effects on employment and career terms were discussed at length. The increasing focus on excellence criteria in science, academia and research funding not only strengthens competition, it also fosters the dominance of “ideal science” based on an implicit gender bias. Empirical findings indicate that women are increasingly faced with precarious terms of employment as a consequence of NPM and excellence initiatives.⁸

It became apparent in the discussions that new managerialism is not being implemented in a uniform manner, but is instead subject to situated or organisation-specific power interests.⁹ Several delegates pointed to the difficulties involved in integrating gender across the board into management instruments.¹⁰ Nonetheless, the restructuring processes at universities and research institutions were also seen as a good opportunity to anchor gender equality instruments on a long-term basis.¹¹ The main challenge here lies in the fact that such management instruments are based primarily on quantifiable indicators, such as academic qualifications, publication output or third party funding raised. While it is possible to include a gender dimension here via the share of women, this does not



create an adequate, multidimensional gender construct, since it ignores, for example, the gender dimension in research or the breaking down of structural barriers for women. Additional and/or other indicators, i.e. indicators which focus more on research quality and the promotion of young scientists and academics, are needed if gender is to be included in management processes in a comprehensive sense.¹²

Financial incentives for reaching gender goals or goals relating to the advancement of women, or sanctions for the failure to do so, are two possibilities for integrating a gender dimension into management instruments. Experiences with these options were the subject of divisive

debate, with one side emphasising the political commitment to addressing gender goals that was indicated by such measures, while the other raised the issue of the limited validity and expressiveness of gender indicators.¹³

The delegates expressed high expectations when it comes to gender budgeting. The implementation of gender budgeting should not only provide transparency regarding the use of funding, it should also provide the impetus for structural change.¹⁴ The pilot projects presented in this context demonstrated possibilities for considering not only financial but also space and time resources and for revealing the imbalances of power that result from the distribution of resources.

8 See also Chapter 8.

9 Hofbauer, Johanna; Kreissl, Katharina; Sauer, Birgit; Striedinger, Angelika: Institutional Complexity and Careers. Gender Challenges in Austrian Universities

10 Dahmen, Britt: The Power of Gender Equality Players in Times of Changing Universities
O'Connor, Pat; O'Hagan, Clare: Excellence into Managerialism: Will it Go?

Vagnoni, Emidia: Gender Diversity and Governance: An Explorative Study of Italian Universities

11 Erbe, Birgit: Gender Mainstreaming in Public Financing of Universities: Central Findings for Germany
Roski, Melanie: The Modernization of Universities – Effects on the Work of Equal Opportunities Commissioners in German Universities

12 Mlakar, Annemarie: The Effects of Gender Equality Management in Higher Education Institutions. The Implementation of a Gender & Diversity Controlling at Goethe University Frankfurt am Main
Wroblewski, Angela: Cultural Change – a Neglected Goal in Equality Policies in Academia?

13 Eckstein, Kirsten: From Gender Reports to Gender Budgeting – On the Way with Meaningful Gender Equality Indicators

In the bibliometry context: Nielsen, Mathias Wullum: Gender Consequences of the Danish Bibliometric Indicator: New Pieces in an Old Puzzle

14 Genova, Angela; de Micheli, Barbara: Gender Budgeting: Pilot Experiences to Make Structural Changes in Scientific Organizations in Europe

4 Research Funding

Since the publication of the now famous study by Wennerås and Wold (1997), measures have been taken in many countries to reveal and reduce the gender bias in access to research funding. Some of these measures are aimed at increasing transparency in the allocation of funding to expose a potential gender bias. Others establish gender criteria in the research funding allocation process, but with different areas of focus and binding force.¹⁵

These gender criteria and measures target three areas.

- 1. Increasing the presence of women in teams.**
The focus here is on closing the leaky pipeline, i.e. on removing the structural barriers which lead women to leave academia or prevent them from developing their potential (glass ceiling).
- 2. Anchoring gender equality in research institutes.** The goal here is to use the requirements set for the receipt of grants to anchor and/or reinforce the advancement of women and gender equality measures in research institutions in order to make full use of the potential of women in science and academia (and prevent the “waste of talent”).
- 3. Consideration of the gender dimension in all research content.** The goal here is to ensure that consideration of the gender perspective forms an integral part of quality criteria for research grants. Elizabeth Pollitzer illustrated this in her keynote speech using the example of crash test dummies. The vast majority of crash test dummies used in safety research in the automobile industry are male, and the standards developed on this basis, i.e. on the basis of the male body, are subsequently applied as gender neutral; the specifics of the female body are not considered. In the pharmaceutical sector, it is still not standard practice to test pharmaceuticals on both women and men. Likewise in biology, the gender of cells is frequently not considered.¹⁶

In the subsequent debate, the different challenges to the anchoring of gender criteria in research funding were raised and discussed:

- There are still too few women in some technical and natural sciences disciplines. In other words, even when gender criteria are established, they have no relevance since very few women apply for research grants. Accordingly, the focus here must continue to lie on attracting and encouraging female scientists.
- There is a certain ambivalence between specific gender calls and the call to anchor gender as a general aspect in all funding programmes. While the increased visibility of excellent women through specific gender calls is currently seen as advantageous, the long-term goal is nonetheless a mainstreaming of gender criteria.
- The development of a conclusive approach to monitoring gender bias is viewed as a central steering instrument and an explicit requirement for the Horizon 2020 initiative. Existing monitoring systems focus for the most part on the participation of women in funded projects. This is not, however, sufficient for adequately considering the gender dimension in research. The delegates therefore advocate placing increased focus on who actually benefits from research grants.
- Gender equality demands on publicly funded research institutions need to be communicated more clearly and combined with stronger calls for success with regard to the removal of existing gender imbalances.
- The fact that consideration of the gender dimension is a specified goal and an indicator of quality of research must be communicated clearly to funding applicants and evaluators. In funding applications, gender should be considered both in the research goals, the work plan and in the expected effects.
- The consideration of the gender dimension in the evaluation of applications/funded research requires comprehensive gender expertise on the part of the appraisers.

This cannot, however, simply be assumed to be the case. It remains unclear which measures would be most effective in establishing the necessary respective gender expertise.

The demand for sanctions for non-adherence to gender criteria in the research funding context was discussed heatedly and at length. In many cases, even though gender criteria are formulated and stipulated, there are either no sanctions for non-adherence or the consequences

are largely only hypothetical. The case was made for a step by step increase of the binding nature of gender criteria, e.g. by assigning them greater relevance in the appraisal process, also in countries which have so far not implemented any sanctions. Accordingly, the strategy required would be to make the consideration of the gender dimension a matter of course in all research endeavours by building up gender expertise on the part of the appraisers and placing a stronger emphasis on the gender dimension as a quality criterion in research.



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- 15** Experiences in Germany, Sweden, France and the USA as well as those of the European Research Council were presented at the conference:
Hartung, Barbara: Evaluation of Gender Research in Lower Saxony
Jonsson, Inger: Success Rates in Research Funding – Gender and Networking? A Case Study of a Swedish Research Council
Pépin, Anne: The “Défi Genre” (Gender Challenge Program) at CNRS
Levine, Marci: ADVANCE Grants as Leverage for Culture Change in a Private Mid-Sized, Research Intensive American University
Schiffbänker, Helene; van den Besselaar, Peter: Gendered Dimensions in ERC Grant Selection
- 16** Pollitzer, Elisabeth: Changing the Meaning of Normal Science

5 Gender in Research Content

As already mentioned, consideration of the gender dimension in research and in the research funding context was discussed on three levels:

1. the participation of women in the actual research,
2. the situation with regard to gender equality in the funded organisation, and
3. the consideration of the gender dimension in the respective research content. In her keynote speech¹⁷, Elisabeth Pollitzer referred to the consideration of the gender dimension in research as a core quality characteristic of “good research”. If the gender dimension is not considered, the research cannot meet scientific quality standards.¹⁸

While the calls to reformulate the standards of “good science” were thus directed primarily at the individual disciplines, it was also apparent from the debate that mere appeals to the intrinsic motivation of scientists alone will not suffice, and that external incentives, pressure and support are indeed necessary. These could be provided by the funding bodies on the one hand and through research and higher education policy on the other. The latter can contribute

to this process by defining the general terms applicable to research institutions.

It also became clear in the debate that a gender dimension can be integrated into research content in different ways: as an “add-on”, i.e. as something in addition to the “actual research”, or by involving gender experts in all steps of the research process. Case studies from actual research projects which opted for the second approach emphasise the challenges of working in interdisciplinary teams: this requires different forms of cooperation and different methodological approaches to integrate the gender dimension.¹⁹

The delegates viewed the compulsory inclusion of Gender Studies in all higher education curricula as the most important requirement for assuring the quality of gendered research. This allows all teachers and researchers to come to grips with the gender dimension in their field of teaching and/or research and acquire the necessary contextual and methodological expertise. A number of concrete good practice examples from the medical, engineering and landscape planning sectors were presented in



this context. These included several examples of the comprehensive integration of a gender perspective into the curriculum for a degree in medicine, e.g. at the Charité University Hospital in Berlin, at the School of Medicine at the University of Madrid or Innsbruck Medical University.²⁰ Concrete experiences with the inclusion of Gender Studies in engineering and landscape planning curricula in Austria and Germany were also presented.²¹

The current situation is still far from this ideal and is instead shaped by manifold forms of resistance on the part of researchers and students as well as by an ambivalent attitude to the topic on the part of funding bodies and the research institutions themselves. This ambivalence is characterised by a commitment to gender equality in principle, yet one which sees it as a contradiction to demands for excellence. Intensive explanatory and persuasion efforts are required to eliminate this ambivalence and establish the consideration of the gender dimension as a quality criterion. These efforts should, in turn, be linked to concrete measures in the financing of research projects and institutions.

Different approaches for encouraging student interest on gender issues and approaches were discussed at the conference. These included, for example, the introduction of a “gender award” for theses, dissertations, etc. with a gender focus, establishing a personal connection to the topic (e.g. by mentioning the gender pay gap), or the obligatory inclusion of gender lectures in curricula (with relevance for the final grade). One question raised in this context was how we can go about supporting university lecturers who have so far not addressed gender issues in their research or deal with their resistance to this issue.

The danger of re-stereotyping was seen as a general challenge in this context: the consistent differentiation between genders leads to women and men each being considered and treated as homogenous groups. Further differentiating characteristics then frequently remain unconsidered (e.g. age, ethnic background, etc.), which stands in the way of sensitisation to gender diversity. There were therefore calls for the increased promotion of intersectional approaches to research. At the same time, the delegates also concluded that efforts to portray the differences between men and women counteract those feminist approaches which force a breakdown of binary gender constructs.²²

17 Pollitzer, Elizabeth: Changing the Meaning of Normal Science

18 See also Chapter 4.

19 Reidl, Sybille: The Challenges and Potentials of Gendered Innovation Projects: An Interdisciplinary Perspective – A Field Report

20 Ludwig, Sabine: A Systematic Approach to Integrate Gender and Sex-related Perspectives and Dimensions during the Planning and Implementation Phase of an Outcome-based Medical Curriculum

López Giménez, Rosario: Integrating of Gender in Medical Education. A Proposal from the School of Medicine of the Autonomous University of Madrid (Poster)

Hochleitner, Margarethe: How to Get Gender into Medical Universities (Poster)

21 Bath, Corinna: Gender Studies for Engineering Students: Disciplinary Cultures and Institutional Settings

Damyanovic, Doris; Fuchs, Britta: Gender Studies in Planning Processes – Examples from Austria

Ernst, Waltraud: Shifting Norms of Gender in Higher Education in Science and Engineering

Hirschler, Petra; Witthöft, Gesa: Gender Studies in Spatial Planning

Knoll, Bente: Gender Studies at Engineering Faculties in Austria

Kuhlmann, Dörte: What’s Wrong with the Fountainhead

Mauss, Baerbel: Gender Studies for STEM Students – GENDER PRO MINT at TU Berlin

22 Siller, Heidi; Hochleitner, Margarethe: Gender in Research: An Example drawn from Research on Posttraumatic Stress Disorder

6 Gender Didactics

Gender-sensitive didactics enjoy a long tradition, and much experience has been gained here, particularly with regard to awakening the interest of girls in technology, mathematics or natural sciences. Yet career and degree choices still remain segregated by gender, i.e. despite the numerous initiatives and pilot projects, few changes have been achieved.

The way teachers are themselves taught at university was considered by delegates to be a central reason for the reproduction of gendered teaching in technology and natural sciences subjects. While they are at university, future teachers are socialised in the characteristically male culture of science and academia and subsequently go on to reproduce this culture in their own classrooms.²³ This happens unwittingly because teachers generally do not reflect on their own role models, attitudes and norms.

When it comes to changing gendered role behaviour and encouraging girls to pursue careers in technology or the natural sciences (the teacher as “gatekeeper”), delegates emphasised the central role played by teachers in nursery schools, schools and teacher training

programmes. There was a general consensus that teachers must have gender competence and that this must also form an integral part of teacher training. Gender competence in this context was defined as a combination of subject expertise (incorporating the gender dimension into the teacher’s own subject), media skills and the ability to reflect. Particular emphasis was placed here on the ability to be able to reflect on one’s own role models, attitudes and behaviour from a potential gender bias perspective. If teachers do not reflect in this way, there is the risk that gender-segregated teaching will instigate a re-stereotyping of gender. This ability to reflect should be coupled with innovative teaching methods (e.g. team teaching or working in small groups) in order to build up the ability to reflect on the part of the students as well. These issues and approaches were discussed specifically in relation to innovative didactic concepts.²⁴

A range of didactic concepts and good practice examples in schools were presented during the conference and discussed with regard to their transfer(ability) to the mainstream. These included a number of pilot projects, e.g. a gen-



der-sensitive course on communication and media design at a vocational school in Vienna²⁵, the fem2map²⁶ pilot project in which a curriculum was designed to raise the interest of women in geographic information systems, or the Centre for Gender Studies which was established at the University of Cologne in 2012.²⁷ The continued development of such projects will require closer cooperation between innovative projects and science, e.g. through the provision of increased scientific support in realising pilot projects and thus a (retrospective) dependence on the theoretical debates in gender research. With regard to the transfer of successful pilot projects to the mainstream, delegates also discussed the problem that such projects are primarily driven by the commitment and engagement of specific individuals or institutions and thus “live” to a great extent from their intrinsic motivation. This important aspect is lost through a transfer to the mainstream. How this problem should be dealt with remained an open question.

The importance of reflection is not restricted just to teachers; reflection also needs to happen at the school, i.e. institutional, level. In her

keynote speech²⁸, Angelika Paseka emphasised that teacher training and school reform have to be linked to bring about actual change in the classroom. In line with Argyris and Schön (1996), the personal reflection processes of teachers, in which they reflect on their own actions in the classroom from a gender perspective and relate these to gender equality goals (“second loop learning”), must be linked with organisational learning by creating spaces for reflection at an institutional level (“deutero learning”). This is a challenge that affects not only headteachers and school management but also the education authorities and education policy since they define the general framework for school reforms.

The integration of gender-sensitive teaching into accreditation procedures is one possible approach to coupling these two levels. Proposals for increased networking and cooperation between the different groups of actors in these institutions, e.g. teachers, course target groups, gender experts and equal opportunities officers, also follow a similar line.

23 Bartosch, Ilse: STEM Gender Bias in Austria – the Result of a Segregated Educational Schooling System and an Exclusive Masculine STEM Culture?

Günther, Elisabeth Anna: Subtle Modes of Exclusion. Lecturers’ Image of the Ideal STEM Student

24 Jansen-Schulz, Bettina: “Integrative Gendering-Diversity” - A Strategy for Universities Structures, Teaching and Higher Education Didactics

Mense, Lisa; Wegrzyn, Eva: Frustrating, but Fruitful Frictions

Mischau, Anina; Langfeldt, Bettina: Gender Competence in Mathematics Teacher Training: Course Concept and Experiences

Schmidt, Angelika; Bendl, Regine; Heinrich, Monika: Constructivist Didactics, Gender and Diversity and Complexity Management: What Gender and Diversity Oriented Didactics do we Need to Increase the Employability and Qualifications of Business Studies’ Bachelor Graduates in Austria?

25 Ettl, Maria: Gender Mainstreaming as Instrument of School Development - Reflections on a Long-standing Practice at the Herta Firnberg Schools for Business and Tourism (HFS) Using the Example “Computer Science Management”

26 Lin, Yuwei; Schmidt, Manuela: A Gender-informed Curriculum for Teaching Volunteered Geographic Information (Poster)

27 Schulz, Dirk: Demanding and in Demand: A Centre for Gender and Queer Studies and Its Consequences

28 Paseka, Angelika: Bringing Gender into the Mainstream of Schools: On Crises, Learning Individuals and Learning Organizations

7 The Academic Career Model

The debates on how to increase the competitiveness of the European economy and its national counterparts frequently raise the need to obtain the maximum from a country's human resources or make full use of its inherent potential. These demands support the gender equality cause. Indeed, gender equality is at times cited explicitly as an indispensable measure for expanding human capital resources in science and academia. Yet despite this verbal affirmation of gender equality policy, there is still a gaping divide between gender equality goals and reality. Women remain, for instance, strongly underrepresented in STEM subjects – also among the student population. In disciplines where the number of female students now equals or has long overtaken that of male students, women experience disadvantages both at the start of and throughout their subsequent careers. Young female academics give up their scientific careers or drop out of science significantly more frequently than their male counterparts (leaky pipeline).

These phenomena are explained in the literature with reference to external and self-exclusion mechanisms. The characteristic forms of selection in academic career models are also used as a means of explanation. These models can be illustrated using two examples, namely the "habilitation model" (in German-speaking and neighbouring countries, e.g. France, Czech Republic) and the "tenure model" (characteristic of Anglo-Saxon countries; cf. Kreckel 2008). The habilitation model corresponds in its form to a pyramid in geometry, with a broad base and a very narrow tip. To access the narrow top (i.e. professorship), candidates not only have to successfully complete the academic qualification process, they also have to successfully pass through a multi-stage peer selection and appointment procedure. This procedure is extremely susceptible to gender discrimination processes, since – and despite the formalisation of selection procedures – questions of "fit" ("Passfähigkeit"; Zimmermann 2000) still play a role in the filling of the most privileged posi-

tions in science and academia. In comparison to the habilitation model, the pyramid in the Anglo-Saxon tenure model is constructed less steeply. From post-doc level onwards, there are positions available which contain all the traits of a full academic career: independent teaching and permanent employment for senior researchers and senior lecturers (cf. Pechar 2005 and Kreckel 2008).

Specific forms of exclusion manifest themselves for women regardless of the academic career model (habilitation or tenure). External exclusion mechanisms turn into self-exclusion when women withdraw voluntarily or leave academia entirely in anticipation of discrimination and/or in the absence of any convincing signals of institutional countermeasures (credible gender equality policy throughout the institution, clear commitment from management, etc.).²⁹ The correlation between structures of discrimination and individual anticipation of failure, which both lead to self-exclusion, was clearly illustrated in the keynote speech given by Loukas Balafoutas. Balafoutas' research also shows that quota systems do not restrict academic productivity, but are instead a good means of preventing the female brain drain. Quota systems encourage women to enter competitive situations. This raises the probability of female appointments and, at the same time, contributes to quality assurance in science and academia.³⁰

Segregation between positions with lower and higher teaching loads is a characteristic feature of the tenure model. Since lecturer positions offer greater opportunities for combining career and family commitments, women tend more frequently to end up on this career track. But they rarely succeed in making the transition back to a research career. The tendency towards segregation is perpetuated through the managerialisation of universities where attractive new administrative roles are emerging. However, reports of experiences in the UK and Sweden presented at the conference show that

the assumption of administrative and management roles can be detrimental to the development of academic careers.³¹

The performance indicators which are used in both habilitation model appointment procedures and tenure processes purportedly measure objectively determinable successes (publication output, amount of third party funding raised). Yet, in fact, the conditions upon which such performance rests already lack uniformity, such as the unequal access to sponsors and gatekeepers in the scientific community afforded to men and women (see below) or unequal access to various relevant resources. Given this situation, the delegates discussed at length questions pertaining to the determination of excellence in personnel selection processes, the roles of gatekeepers and networks in scientific careers, gender-specific mobility and the situation facing young female academics and scientists at the start of their careers (see below).

Active involvement in relevant networks remains a touchstone for a career in science and academia. Several presentations at the conference stressed that women are at a disadvantage here because they are less familiar and familiarized less with the rules of networking.³²

During the discussions, the fact that international mobility and willingness to relocate are becoming a prerequisite for professional advancement in some disciplines (e.g. the natural sciences) was frequently raised. When combined with uncertain career perspectives, this demands a higher risk propensity and/or a robust and supportive social infrastructure.³³ Motives for taking up an assignment abroad and barriers to mobility for female scientists and academics were also discussed in a workshop entitled "Academics without Borders?". The main challenges identified and discussed in this context included willingness on the part of a spouse/partner to relocate, support with



childcare and language skills. The discussion also addressed the differences between the various disciplines and raised the question of how international experience impacted careers in different disciplines. The above-mentioned requirements for a career in science and academia shape the situation for career entrants in particular, and central relevance was accorded in this context to the role model effect of supervisors and line managers and their function as mentors and gatekeepers.³⁴ Doctorate programmes were mentioned here as one way of regulating such supervisory relationships at institutional level and assuring their quality. Several presentations referred in this context to the problems of an androcentric work culture, which continues to persist, or is more

dominant than ever, in many disciplines.³⁵ It was also observed that (excellent) young female scientists were promoted less frequently or given inferior supervision.³⁶

During the conference, a series of good practice examples demonstrated ways of reflecting on and avoiding a gender bias in appointment procedures. Many of these examples were based on approaches designed to make subtle and frequently unintentional discriminatory practices visible and develop appropriate alternatives. Several different career programmes for women were also presented and their effects on the individual level and contribution to structural changes were discussed.³⁷

29 Winter, Kate Quinn: Exploring the Role of Gender in the Experiences, Perceptions, and Career Intentions of Future Medical Faculty

30 Balafoutas, Loukas: Using Experiments to Evaluate Affirmative Action Policies

31 Berg, Elisabeth; Barry, Jim; Chandler, John: Gender and Management in Academe: "Open Highways, Blind Alleys and Dangerous Bends"

32 For example: Kegen, Nadine: Cohesive Subgroups in Academic Networks: Unveiling Clique Integration of Female and Male Top-level Researchers

33 Bönisch-Brednich, Brigitte: Gendered Mobility: The Twists and Turns of Academic Migration

34 de Vries, Jennifer: Chasing our Tails: First Mentoring, Now Sponsorship, What Next?

Kahlert, Heike: The Attractiveness of an Academic Curriculum Vitae or: Gatekeepers as Agents of Stability and/or Change in the Organizational Culture of Academia

Scheich, Elvira: Diversity in the Cultures of Physics. A European Summer School Project for Women Physicists

Schraudner, Martina; Trübswetter, Angelika: How Scenarios and Role Models Can Foster Scientific Careers – A Cross-national Perspective

35 See also Chapter 9.

36 Haas, Marita: Caught between Restrictions and Freedom at a Technical University – The Case of Sonja B.

Horwath, Ilona; Kronberger, Nicole: Impact of Social Discomfort and Academic Self-doubt at High Performance Levels

Oberkrome, Sara: Gender Inequality during the Doctoral Phase – The Influence of Bourdieu's Capital Forms

Wejwar, Petra; Grabher, Angelika: Gendered Study Paths. Perspectives on the Selectivity of Higher Education Aspirations

37 Yva Fältholm: Gender Aware Recruitment and Promotion Practices at Luleå University of Technology

Müller, Frauke: Promoting the Academic Career of Female Researchers and Clinicians at the University of Geneva Medical Faculty

Steinweg, Nina: Obstacles to the Recruitment of Female Scientists for Leadership Positions? Theory and Reality of Recruiting or Recruiting Policies Aimed at Increasing the Number of Female Scientists in Non-university Research Institutions in Germany

8 Working Conditions in Science and Academia

The working conditions for scientists, academics and researchers have to be viewed in relation to their status as members of a privileged profession which offers the possibility of intellectual development and high self-identification on the one hand, yet is also characterised by pronounced competition for status on the other. This constellation favours self-exploitation and brings with it the risk of burnout.

Career entry for young scientists and academics – particularly in German-speaking countries with their strong orientation on the Humboldtian university model – is shaped by precarity, uncertainty and dependency on an academic mentor.³⁸ The growth in third-party-funded research at universities has increased employment opportunities in higher education – especially for young academics. But the expansion of the scientific labour market has undoubtedly also come at a price since it has been founded in many cases on increasingly flexible forms of employment. A clear matter of concern when it comes to young scientists and academics is the frequently precarious situation of third-party-financed project staff, many of whom are employed under atypical contracts (part-time) of short-term duration. To signalise their commitment and roughly earn a living wage, it is not uncommon for young scientists to have to work on several research projects at the same time. The situation is further aggravated by indications of a deterioration in working conditions in science and academia. These include, above all, the growing intensity of the work and excessively long working hours which are accepted in the battle for contract extension or positions in further projects.³⁹

Women are affected more by such precarious working conditions than men.⁴⁰ They are more frequently employed on temporary contracts or work involuntarily on a part-time basis. With funding for science and research increasingly tied to criteria of excellence, demands for increased hours, availability and mobility also

rise. Academic CVs with career breaks or switches between academic and non-academic career tracks increasingly become a hindrance.

Family commitments continue to be viewed as a main constraint to working hours that primarily affects women and is strongly influenced by societal parameters (e.g. norms, institutional support facilities, parental leave regulations, etc.).⁴¹ Two topics discussed at the conference were how science and research institutes can effectively support academics and students in reconciling their work/study and family commitments and which incentives could be offered to men to encourage them to share family care duties. It became clear that effective solutions are for the most part achieved on an individual basis through line manager support and the use of the existing flexibility in job-related options (e.g. parental leave regulations, flexible working hours models) offered by the organisation and the state.

Despite the many measures to support the work-life balance, little has changed as far as the culture of “presenteeism” and the demands that scientists be available around the clock are concerned.⁴² This can be seen, for example, in the fact that young scientists and academics give their work precedence over leisure activities or legitimise the latter through their benefits for science: “Running is good because it clears my head for being an academic.”

In the discussions, it was frequently pointed out that work-life-balance measures should be discussed not only from a childcare perspective, but also in a broader context of “personal life” that includes the promotion of health.⁴³ Their aim should also be to prevent people from working too much and thus to reduce the risk of burnout.

With regard to working hours, frequent reference was made to the different qualities of working hours and the lack of autonomy in the

allocation of time. The limited amount of time that academics have at their own disposal ("Eigenzeit"; Nowotny 1990), i.e. the time available to them for "real" scientific work, was bemoaned. In their qualitative study of young academics, Paulitz et al. show that the former differentiate between "real work" (especially research), "work" (e.g. administration) and "non-work" (leisure activities) and lament in particular the imbalance which in their opinion exists between "work" and "real work".⁴⁴

A further core problem that will need to be increasingly addressed in future is the sexual harassment of women – especially in male-dominated areas.⁴⁵ The first step here is to draw attention to sexism in everyday working life and raise awareness of the problem. Existing preventive measures need to be subjected to critical reflection, since experts report that they are not having enough effect and have too little intersectional focus.



38 See also Chapter 7.

39 Tschudin, Sibyl: Which is the Most Efficient Strategy? Experiences with Mentoring and Part-Time Work During the Last Decade at the Basel Faculty of Medicine

40 Aichholzer, Verena; Chudzikowski, Katharina: Careers and Career Development at Austrian Universities from a Gender Perspective

Costas, Ilse; Camus, Céline; Michalczyk, Stephanie: Gender Effects of New Public Management on Subjectification: A Qualitative Analysis of German and French Academics

Löther, Andrea: Gender Aspects of Precarious Working Conditions in German Universities

Vervoorts, Anja: Precarious Working Conditions: Does Gender Really matter? (Poster)

41 Buber-Ennsner, Isabella: Childbearing Ideals and Intentions of Female Researchers

Holzinger, Florian; Reidl, Sybille: Organizational Practices of Paternity Leave

Kunadt, Susann: Family Friendliness at German Higher Education Institutions: About the Effectiveness of Strategies and Measures for the Reconciliation of Science and Care

Vohlidalova, Marta: Once Children Come, it Puts Sand in the Wheels of Career Opportunities

42 Hey, Barbara: Reflecting a Research Based Intervention in Academic Work-Life-Balance

Ortlieb Renate; Weiss, Silvana: Work-Life Balance and Career Aspirations of Junior Faculty

43 Grünenfelder, Julia: Work-Life Balance: Insights from Recent Scientific Findings and their Implications for Academic Gender Equality Practice

44 Paulitz, Tanja; Goisaufl, Melanie; Zapusek, Sarah: Gendered Relations of Work and Life in Academia: Findings from a Qualitative Study at the University of Graz

45 Carrigan, Coleen: Combating Gender Harassment in Academic Science, Technology and Engineering

9 Academic Culture

The prevailing notion of ideal science, the benchmark for the assessment of “good science”, stems from an article by Max Weber entitled “Science as a Vocation” (“Wissenschaft als Beruf”) in 1919. A good scientist places science at the centre of his/her life and gives it precedence over all else. To be a successful scientist, you have to be available around the clock and be geographically mobile, requirements that can be met more easily by men than by women. This notion of ideal science has been strongly criticised – for example by feminist research – since the 1970s, but nonetheless continues to remain in force and constitutes a problem for women, particularly in male-dominated areas. Horwath and Kronberger, for instance, show that stereotyping processes in engineering disciplines lead to women developing feelings of social discomfort and ultimately leaving engineering to take up new careers (despite having been high performers).⁴⁶

In recent years, a series of pilot projects were initiated at EU, national and institutional level to contribute to changing the prevailing academic culture. EU-funded projects whose findings and experiences were discussed at the conference included the GenderTIME, INTEGER, FESTA and GENOVATE projects.⁴⁷ In addition to these EU projects, experiences of scientific and academic institutions with measures designed to bring about cultural change were also discussed. These included, in particular, the implementation of comprehensive gender action plans⁴⁸, mentoring and sponsoring⁴⁹, a female quota for decision bodies⁵⁰, leadership programmes (academic management competence) and gender training programmes (building gender awareness and gender competence).⁵¹ One experience common to all these projects was that while successes were achieved at the individual level, i.e. the participants in the projects profited from them, they rarely gave rise to lasting structural changes. The delegates discussed how such pilot projects can be permanently integrated into university structures and how to make increasing use of multipliers.⁵²

A central starting point for changing the culture in science and academia is the professionalisation of HR policy. This conflicts to some extent with the prevailing assumption that personnel decisions should be based primarily on excellence criteria and should thus, per definition, be gender neutral. The decision-makers, who frequently assume a gatekeeper function, are usually not conscious of their role and the power of their decisions and rarely reflect on their contribution to creating structural barriers for women. There is therefore a need to establish and increase gender awareness and gender competence among such decision-makers, e.g. with regard to the selection of young academics, the selection of people for management and leadership functions or in appointment procedures.⁵³ Likewise, decision transparency must also be increased, e.g. in appointment procedures for full professors. This does not simply mean the definition of and adherence to concrete decision criteria; the criteria themselves must also be reflected on with regard to any inherent gender bias. Are decision criteria based on a notion of ideal science with male connotations and do they, for instance, result in a discriminatory assessment of career breaks?

The professionalisation of HR policy also requires academic management competence that incorporates gender equality criteria.⁵⁴ It was reported in various contexts that academics are often less than enthusiastic about taking on management or administrative roles since this leaves them with less time available for research. Furthermore, it was also noted that the assumption of such tasks varies for men and women in terms of the prestige attached or the associated time demands. The time issue is amplified further by efforts to increasingly appoint women to decision-making bodies, particularly in those fields in which women are strongly underrepresented. Proportionally, there are indications that these “token women” take on more administrative duties than men in comparable positions.

Both the aspiration to make careers in science and academia more attractive to women and the removal of structural barriers for women by professionalising HR policy demand an increase in the ability to reflect on gender issues. The ultimate goal is to change those practices which contain a gender bias and thus – whether intentionally or unintentionally – lead to women leaving academia or reaching the glass ceiling. Academic and research institutions need to be turned into open, modern institutions, which view diversity not as a threat but as an enrichment and which convey a feeling to women and men alike that they are welcome and valued.⁵⁵



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- 46** Horwath, Iлона; Kronberger, Nicole: Impact of Social Discomfort and Academic Self-doubt at High Performance Levels
- 47** Archibong, Uduak; Karodia; Nazira: GENOVATE – Transforming Organizational Culture for Gender Equality in Research and Innovation
 Barnard, Sarah; Bagihole, Barbara; Dainty, Andrew; Hassan, Tarek: The Gendered Experience and Impact of Academic Culture in the UK, reporting from the GenderTIME Project
 Pepin, Anne; Drew, Eileen; Sidlauskiene, Virginija; Lipinsky, Anke: Fostering Gender Equality in Research Institutions through Transformational Gender Action Plans (INTEGER project)
 Wolfram, Andrea: Gender Implications of Perceptions of Excellence at European Universities. Experiences from the FESTA-Project
- 48** Achterberg, Susanne; Dahmen, Jennifer: How Much Gender Equality Policies Fit Into the University? A Case Study from Germany
 Beck-Schimmer, Beatrice: Can We Fill the Gap?
 Buber, Renate; Warczewski, Lena; Zeger, Marion: Plans for the Advancement of Women in Higher Education Institutions: How do they Contribute to Successful Gender Equality Work at Austrian Universities?
 Herr, Winship: How to Set Gender Equity on a Faculty's Agency: The Action Plan AGIR Pour L'égalité at the Lausanne Faculty of Biology and Medicine
 Thaler, Anita; Hofstätter, Birgit: Promoting Women Researchers' Careers. An Evaluation of Measures in Life Sciences and ICT



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- 49** For example: De Vries, Jennifer: Chasing our Tails: First Mentoring, now Sponsorship, What Next?
Dubach, Philipp: Career Development of Former Mentees at Swiss Universities – Implications for Mentoring Programs and Gender Equality Policies at Universities
Mouton, Audrey; Steiner, Rebekka: Evaluating the Impact of a Women-only Mentoring Program in a Context of an Increased Offer of Structured Doctoral Programs
Schmohr, Martina: One Step Further - Mentoring as Integral Part of Academic Staff Development
- 50** Von der Linden, Claudia: Change Management - From Affirmative Action to Cultural Change (Poster)
- 51** For example: Archibong, Uduak: From 'Greening' Transformation to Gender Diversity Change Programme: University of Bradford's Experience
Ehrenstorfer, Barbara; Preymann, Silke; Aichinger, Regina; Sterrer, Stefanie: Women in Academia at the University of Applied Sciences Upper Austria: Impressions, Developments and Perspectives (Poster)
- 52** Hyland, Diane: Interdisciplinary Mentoring to Build Community beyond Academic Departments and Retain Women STEM Faculty
- 53** Buber, Renate; Mille, Silvia: Carrying Out Gender-Equitable Recruitment: The Interplay Between Legal Requirements and Management Decisions at Universities
Jeanrenaud, Yves: Generation BeST – Investigation of Gender-neutral and Gender-sensitive Academic Recruiting Strategies
Peterson, Helen: Finding the Right Woman for the Job: A Study of Vice Chancellor Recruitment Policies and Practices in Swedish Higher Education
- 54** Lipinsky, Anke: The Gendered Organization as Narrative – Patterns of Appropriation, Justification and Renunciation of Gender Equality Action during Evaluations
- 55** Klein, Uta: Gender Equality and Diversity Politics in Higher Education: Conflicts, Challenges and Requirements for Collaboration

10 Conference Summary and Conclusions

The “European Conference on Gender Equality in Higher Education” achieved two things in particular: it brought the issue of gender equality in science, academia, research and higher education to the fore and drew in the process on real dialogue between practitioners and theoreticians. The advantage of such an approach is that it promotes a dynamic exchange between different standpoints. This exchange, in turn, provides a clear indication of the core topics that will need to be addressed in future efforts in both research and policy actions and interventions. The need and demand for policy action which emerged from this dialogue – and from the conference as a whole – are outlined below.

The anchoring of gender criteria in science, academia and research funding is an important control mechanism for gender equality policies. Increasing the degree of obligation of existing measures is an important aspect in regard to the development of existing measures. In some countries, sanctions are being discussed or have already been introduced for non-achievement of gender equality goals. To promote and establish gender equality effectively, existing control instruments will also need to be adapted, with particular focus on the development of qualitative indicators. These must be based on a three-dimensional gender construct, which comprises the increasing of the proportion of women in science, academia and research, the consideration of a gender dimension in research content and the removal of structural barriers for women in academic, scientific and research institutions.

To establish gender as a good research standard that is incorporated into all research activities as a matter of course, **gender must be integrated as a compulsory subject in all curricula** to develop and expand the corresponding expertise.

Furthermore, an effective anchoring of gender equality policies in science, academia and research requires the coupling of academic gender expertise and management, i.e. the **development of a management culture which embraces gender equality**. This includes reflection on existing practices from a gender bias perspective both on the part of the actual actors (individual level) and on the part of the institution as a whole (organisational learning).

The measures outlined above call central elements of the existing academic system into question, in particular the dominating notion of ideal science, which is based on a typical male academic career and which makes limitless demands on the work capacity of academics: unlimited availability in terms of working hours, geographic mobility and the willingness to give work absolute precedence over other areas of life.

A changed notion of ideal science and an adaptation of the demands on excellent academics would also seem to be necessary in the long term to increase the attractiveness of a career in science and academia. This, in turn, requires a change in the working conditions in science and research to make “good science” compatible with a “good life”.

11 List of Participating Actors

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