Gender Equality in Science and Research in Austria
Gender Equality in Science and Research in Austria

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Foreword

Gender equality has now established itself in science and research as an important means of revealing untapped potential and using it for the benefit of all. To be able to set corresponding, targeted and above all sustainable gender equality measures, we need to regularly analyse the status quo. What does the available information and data obtained from gender monitoring tell us about the status quo of gender equality in science and research in Austria? What have we already accomplished and where is further action needed? The European Higher Education and Research Area plays a central role in this regard, because gender equality must be thought of and shaped in European terms.

Accordingly, my Department follows three goals that are clearly aligned to European targets: (1) to establish a gender balance at all levels in higher education, (2) to anchor gender equality in our higher education structures and processes (e.g. selection processes, compatibility of study/work and family, etc.) to promote equal opportunities, and (3) to strengthen gender studies and its incorporation into teaching and research. These three goals have already been integrated into our core steering instruments such as the National Development Plan for Public Universities or the performance agreements with the individual universities across the country.

Data creates awareness. It also serves as the basis for the design and implementation of evidence-based measures. That’s why it is—and always has been—particularly important to me to constantly improve our gender equality indicator system and to document the development of the European Research Area in this report.

The report begins with a comparison of the situation in Austria and the other EU Member States. It then goes on to describe the university, university of applied sciences and non-university research sectors, looking in each case both at the sector as a whole as well as at the individual institutions therein and providing concrete examples of actual measures that have been implemented to promote gender equality.

I hope you will find it to be an interesting and informative read.

Univ.-Prof. Dr. Heinz Faßmann
Federal Minister of Education, Science and Research
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Introduction

Gender equality goals and gender equality policies have a long tradition in Austrian higher education policy. The establishment of working groups on equal opportunities at the country’s universities at the start of the 1990s created a powerful institutionalised means of preventing discrimination in appointment procedures. Over time, a comprehensive bundle of measures was developed to advance women, gender equality and gender research (Wroblewski et al. 2007). These included post-doctoral habilitation grants for women, mentoring programmes, childcare facilities and other programmes such as FEMtech. Until the universities gained autonomy, the Ministry of Science and Research was the driving force behind initiatives to advance women’s career opportunities and gender equality. When the Universities Act 2002 [Universitätsgesetz] came into force and granted broad autonomy to the universities, responsibility for the development of gender equality policy also shifted to the latter.

§ 2 of the Universities Act [UG 2002] formulates “equality of the sexes”, “compatibility of studies or career and responsibilities for the care of children and family members requiring care” and “special attention to the needs of the handicapped” as guiding principles that are to be observed by the universities. § 3 defines “gender equality” and “the advancement of women” as university tasks. § 1 stipulates that universities should provide junior scientists and academics with the abilities, qualifications and methodological skills needed to help “a society in transition to master the challenges it faces in a humane and gender-equal fashion”. UG 2002 also establishes core institutions to advance women and gender equality, namely the incorporation of a career advancement plan for women and a gender equality plan into a university’s statutes (§ 20b) and the establishment of both a working group on equal opportunities (§ 42) as well as an organisational unit responsible for the coordination of activities relating to gender equality, the advancement of women and gender research (§ 19). UG 2002 likewise stipulates that women shall make up at least 50% of the members of all collegial bodies (§ 20a).

§ 2 of the University of Applied Sciences Studies Act [Fachhochschul-Studien-gesetz] obliges the provider to “give regard to gender equality and the advancement of women”. It also stipulates that they “shall strive for a balanced representation of women and men on their bodies and committees”.

The provisions outlined above are based on an understanding of gender equality that is oriented on three goals:

1. Integration of women into all areas and all hierarchy levels in science, academia and research
2. Removal of structural barriers to women so that women and men enjoy equal career opportunities in science, academia and research
3. Integration of the gender dimension into research programmes and research-led teaching
These goals correspond to a large extent to the gender equality goals for the European Research Area (ERA; European Commission 2012: 12). In the ERA, the European Commission invites Member States to work with universities, research organisations and funding agencies to introduce measures to:

- remove barriers to women in application, recruitment and career progression processes,
- address gender imbalances in decision-making processes, and
- strengthen the gender dimension in research programmes.

In Austria, these goals are incorporated into the main higher education policy steering instruments such as the performance agreements concluded between the Ministry of Science and Research and the universities, the Academy of Sciences (ÖAW) and the Institute of Science and Technology Austria (IST Austria). In these performance agreements, the research organisations formulate their gender equality goals and the measures they are implementing to achieve them. Since the universities in Austria gained their autonomy, a heterogeneous bundle of gender equality measures has emerged, albeit with different priorities, target groups and intensities.

When the outcome-oriented budget approach was introduced for government spending in Austria, the Ministry of Science and Research formulated corresponding gender equality goals in 2014 that are incorporated into the aforementioned performance agreements. The Ministry for Transport, Innovation and Technology (BMVIT) also introduced a gender equality goal for research. These specific outcome-oriented gender equality goals are as follows:

- Balanced representation of women and men in leadership positions, on management and decision-making bodies and committees and among junior scientists, academics and artists.
- Better use of the skilled workforce and potential available in Austria, in particular by raising the share of women in research, technology and innovation. (BMDW)
- An increase in the number of people working in technology and innovation with a particular focus on raising the share of women. (BMVIT)

To help achieve these goals, measures are also being initiated at government level to advance women’s careers and promote gender equality. These include, for instance, the programmes offered by the Austrian Science Fund (FWF) to assist women, the support provided to research organisations in the development and implementation of gender equality plans and the promotion of research projects with an explicit gender focus through the FEMtech initiative.

To monitor progress towards gender equality goals, gender monitoring was introduced based on the obligatory annual intellectual capital reports submitted by the universities. This gender monitoring mainly covers the university sector and contains indicators on the representation of women and men in all areas and at all hierarchical levels (including management and decision-making bodies and committees), the career advancement opportunities open to women and the gender pay gap. For the universities of applied sciences sector, gender monitoring gathers information on the share of women among university staff, students and graduates.

This brochure is a summary of a comprehensive report on the status quo and development of gender equality in science, academia and research in Austria based on the information obtained from gender monitoring and other relevant sources. It differentiates thereby between universities, universities of applied sciences and non-university research organisations. The report reveals a very heterogeneous picture for gender equality—even in comparable contexts, thereby also indicating the scope that is available to institutions to drive gender equality forward.

The summary provided in this brochure begins with a comparison of the situation in Austria and other EU Member States. It then goes on to describe the status quo and development of gender equality in the three sectors mentioned above—universities, universities of applied sciences and non-university research organisations. The focus thereby lies in each case on the sector as a whole. Detailed information on the individual institutions in each sector can be found in the full version of the report. The full version also contains selected examples of good practice measures in gender equality. Both versions close with a summary of the developments in the three sectors and a discussion of any gaps in the data that necessitate further expansion of gender monitoring.
To embed the situation in Austria in a broader context, this chapter presents selected indicators for gender equality in science and research in the EU based on the She Figures 2015. The focus thereby lies on the presence of women in science, academia and research, the gender pay gap and the share of women in management and decision-making functions.

Although women have formed the majority among students in Austria since the end of the 1990s, the gender ratio for PhD / doctoral graduates is not yet balanced: women only make up 41.8% (2012) of graduates at this level. This places Austria in the penultimate position in the EU ranking. It also indicates a smaller rise in female PhD / doctoral graduates than the EU average: while the share of women among PhD / doctoral graduates rose on average by 3.8% in the EU Member States, it only increased by 1.8% in Austria. Accordingly, the potential number of women available for the science and research sector is also significantly lower in Austria than in other EU Member States.

![Figure 1: Share of women among PhD / doctoral graduates in the EU (ISCED 6)](image)
The share of women is particularly low in the technical and engineering disciplines. In 2012, women made up 23% of graduates in these disciplines, again placing Austria in the penultimate position in the EU ranking. A catch-up process has, however, clearly begun: in 2004, the corresponding share of female graduates lay at only 14%.

The share of women falls again when we look at scientists and researchers rather than PhD / doctoral graduates. The share of female scientists and researchers in Austria lies at 30% — again below the EU average (34%). However, the rise in the number of women working in these fields is above the EU average (She Figures 2015). While the number of people working in science and research in Austria rose from 2005 to 2011 by an average of 4.7% per year (EU-28: 3.3%), the annual growth rate for female scientists / researchers lay at 8.7% (EU-28: 4.8%).

The share of women varies greatly between sectors. While the share of female scientists or researchers in the corporate sector lies at only 17%, the ratio of women and men is almost balanced in the non-profit and state sectors (excl. higher education). In the higher education sector, women make up 40% of scientists or researchers. In EU ranking terms, Austria lies here in 23rd position for the corporate sector and 20th position for the higher education sector. In both the non-profit and state sectors, Austria assumes a mid-range position in the rankings. However, these two sectors only account for around 5% of all scientists and researchers.

In Austria, women are not only clearly underrepresented in science and research, they also earn on average 19.5% less than their male counterparts in this sector (based on their average hourly salaries). The gender pay gap thus lies above the EU average of 17.9%.

While Austria has the second highest gender pay gap (24%) in the EU for the total economy (the highest is found in Estonia), the situation for the science and research sector is somewhat more positive. Nine EU Member States (Cyprus, Estonia, Ireland, the Netherlands, the United Kingdom, the Czech Republic, Slovakia, Sweden and Denmark) have a higher gender pay gap than Austria in this sector.
In Austria, two thirds of all female scientists and researchers work in the higher education sector, compared to only 42% of their male counterparts. In contrast, the corporate sector plays a far bigger role for men in this field: slightly more than half of men but only a quarter of women working in science and research are employed in the corporate sector.

Employment in the higher education sector is characterised by the so-called leaky pipeline, i.e. a declining share of women in senior functions. The situation in Austria corresponds here by and large to the EU average. The share of women among students and first degree graduates lie in both cases at over 50%. However, far fewer women than men elect to do a PhD/doctorate and thus follow a scientific career path. At 25%, the share of women among assistant professors or associate professors in Austria lies below the EU average (37%). In other words, this gap widens in Austria at an earlier level.

In Austria, Germany, Lithuania, the Netherlands, Latvia, Estonia and the Czech Republic, women in the higher education sector frequently work on a part-time basis. Indeed, at least one in five female scientists in the higher education sector in these countries works part-time. In Germany, Austria and the Netherlands, there is a distinct gender gap in the higher education sector for part-time employment, with far more women working part-time than men. In Latvia, the situation is the reverse: far more men than women work on a part-time basis in higher education. In Lithuania, Estonia and the Czech Republic, an equal ratio of women and men are employed in the higher education sector on a part-time basis.

The debate on career opportunities for women in science and academia frequently focuses on the share of women in the most prestigious positions—professorships. In Austria, 20.3% of professors are women. This corresponds to the EU average, yet still leaves Austria lagging far behind countries like Malta, Croatia, Latvia or Bulgaria, where more than 30% of professors are women. However, Austria does demonstrate—along with Luxembourg—the highest rise in the EU in the share of female professors between 2010 and 2013 (+40%).
A positive trend can also be seen in Austria for female heads of institution in the higher education sector. The share of women in such positions lies at 23.5% and is thus above the EU average (20%), with Austria occupying 9th position in the corresponding EU ranking. Compared to the figures for 2007, the share of female heads of institution has improved significantly in some EU Member States, most notably in Denmark, where it has increased sixfold from its low starting point. In Austria, the share of women in such positions quadrupled from 2007 to 2014. Over the same period, it trebled in Lithuania and doubled in Belgium, Germany, Latvia, the Netherlands and Slovakia.

Austria lies above the EU average when it comes to the share of female heads (38%) and members (27%) of university management and decision-making bodies/committees and occupies 7th position in the corresponding EU ranking. Sweden, Luxembourg, Finland and the Netherlands have all already achieved gender parity for university management body/committee members, while at least 40% of university management body/committee members in Denmark and Bulgaria are women. Austria lies in 9th position here in the EU ranking. While around 60% of university management bodies/committees in Spain and Latvia are headed by women, only around 30% of their members are female.

The positive trends in the participation of women in university management and decision-making bodies/committees or the share of female professors in Austria can be attributed in part to statutory provisions (e.g. the introduction of a quota regulation for management bodies/committees in higher education institutions), the efforts of the working groups on equal opportunities (e.g. to prevent discrimination in appointment procedures) and the excellents programme (2006–2011) to increase the share of female professors (Wroblewski, Leitner 2011). Many of the measures stipulated in the universities’ career advancement plans for women and gender equality plans have also raised awareness of the gender issue and triggered structural change.
In Austria, 38% of all research institutions have already enacted career advancement plans for women or gender equality plans, thus placing Austria in joint 9th position with Ireland in the corresponding EU ranking. Because the universities are required by law to incorporate a gender equality plan into their statutes, they make up the majority of such institutions with gender equality plans. Since universities also employ the vast majority of scientists and researchers, some 90% of people employed in science and research work in organisations that have enacted gender equality plans. In the EU ranking for scientists working in research organisations with gender equality plans, Austria shares 4th position with Finland and the United Kingdom—behind Sweden (99%), Germany (96%) and France (92%).

90 %
90% of people employed in science and research in Austria in 2013 worked in organisations with gender equality plans. This places Austria in 4th position in the EU ranking.

The Glass Ceiling Index (GCI) measures the chances of women being promoted to top positions in science and research, i.e. to professorships. A score of 1 means that women and men have equal chances of attaining a professorship. The lower the score, the harder it is to break through the glass ceiling. Austria lies in 17th position in the corresponding EU ranking. While Austria’s GCI score has improved in recent years, it still lies at 0.57 and is thus far from the ideal.

Overall, there is still a need for action in Austria when it comes to gender equality in science and research. The key challenges lie in increasing the share of women who opt for a career in this field (i.e. increasing the number of female PhD / doctoral students) and in reducing the gender pay gap. The underrepresentation of women in engineering and technology disciplines also remains fairly constant. At the same time, clear progress has been made in some areas (such as the share of women in top positions).
Gender Equality at Universities

The description of the status quo and the development of gender equality at the 22 universities in Austria is based primarily on information obtained from gender monitoring. Additional information was also obtained from the universities’ performance agreements and intellectual capital reports as well as from the findings of a survey into the integration of gender studies at universities, which was carried out for the University Report 2017 (BMBWF 2017).

3.1 Participation of women

3.1.1 Students

In total terms, women make up 53% of university students in Austria. The share of female students does, however, vary significantly across disciplines. In the arts and humanities, 71% of students are women. 56% of natural sciences and 54% of law students are women. The gender ratio is balanced among social and business sciences students, while 29% of engineering students are women.

The total number of students in Austria has risen by 20% since 2005, whereby the overall share of women has remained constant. The share of women has, however, risen among engineering students (from 21% in 2005 to 29% in 2016). It has fallen, in contrast, in the natural sciences and medicine (by 6% in each case).

The share of women is far lower (46%) among PhD / doctoral students, and women only form the majority of students at this level in the arts and humanities (60%). A gender balance has almost been achieved among PhD / doctoral students in law and the natural sciences (49% and 48% respectively). In the social sciences, the share of female PhD / doctoral students lies at 41%, while in engineering disciplines it stands at 27%.

The share of women among total students and PhD / doctoral students varies depending on the subject focus of the university. A drop in the share of women from undergraduate to postgraduate level can be seen at the ‘classical’ universities and to a lesser extent at the technical universities. At medical schools, the share of women among total students and PhD / doctoral students lies in both cases at 52%. At universities of arts, the share of female students increases at PhD / doctoral level.

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<th>Share of female students (2015)</th>
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<td>Total</td>
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<tr>
<td>Arts and humanities</td>
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<tr>
<td>Natural sciences</td>
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<td>Law</td>
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<td>Engineering</td>
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Given that women make up the majority of students (53%) and first degree graduates (60%), the participation of women in universities in Austria follows the typical picture for the leaky pipeline. However, the share of women falls appreciably for graduates with higher degrees (48%) and lies at 46% in the case of entrants to an academic/scientific career (assistant professors). Only one third of career posts, the newly-created entry-level posts to an academic/scientific career in Austrian universities, are occupied by women. The share of women among associate professors falls again to 24% and lies for professors at 23% (2015).

3.1.2 Employees

The university sector is a growing segment in the labour market: in the period from 2005 to 2017, the number of academic/scientific/artistic staff at universities grew from around 29,000 to almost 40,000, i.e. by 37%. This was accompanied by an increasing integration of women into university staff: the number of female university employees rose over the same period from around 10,700 to 16,300 — and thus at a far higher rate (+52%). Overall, a gender balance has more or less been attained in new academic/scientific/artistic appointments since 2005. However, not all personnel categories have grown in equal measure: the number of professorships, for instance, grew by 16%, yet the number of externally-funded staff increased by 66%. A look at the professor group on its own shows that women on average even slightly outnumbered men in appointments to new professorships. If gender parity had been achieved thereby, the share of female professors would have risen from 15% in 2005 to 20% in 2017. However, the actual share for 2017 is 24%.

By 2015, the leaky pipeline had closed somewhat in comparison to 2006, i.e. the share of women had risen at all levels of participation with the exception of externally-funded staff (2006: 46%).

Similar pictures can be seen for the leaky pipelines at the classical universities, medical schools and universities of arts, where the trajectories for women and men cross. However, the picture is very different for the technical universities, where the two lines run roughly parallel to each other. In other words, women are already clearly under-represented even at student level. The share of women remains relatively unchanged at the subsequent levels with no real decline seen until associate professor/professor level.
Even if the share of female professors has risen in the last ten years, the glass ceiling for women remains in place — although it has become slightly thinner. The Glass Ceiling Index (GCI) score, which contrasts the share of women among professors with the share of women among academic / scientific personnel, lay in 2016 at 0.65 (2005: 0.49). When the GCI score lies at 1, women and men have equal chances of promotion.

With a GCI score of 0.76, the universities of arts are far closer to this ideal than the technical universities (GCI: 0.44) or medical schools (GCI: 0.58) in Austria. Over the last ten years, the chances of promotion for women have improved most at the medical schools followed by the classical universities.

The chances of promotion are also reflected in the outcomes of professorship appointment procedures in 2016. A total of 103 such appointment procedures were held in that year with — given the ratio of female to male applicants — a disproportionate share of women invited to hearings and included on the shortlists. Women made up 26% of applicants but 32% of candidates invited to hearings. Of the newly-appointed professors, 34% were women. If this were to remain constant (i.e. the share of women among newly-appointed professors), it would take nineteen years until a gender balance in professorships was reached.

Adherence to the “duty of career advancement for women” (§ 41, UG 2002), which states that female applicants with equal qualifications to their male counterparts should be given preference in invitations to hearings, inclusion on shortlists and final selection, is particularly manifest at Austria’s medical schools. At the classical universities, this duty of career advancement for women is primarily evident in invitations to hearings and inclusion on shortlists. A different situation is encountered at the technical universities, where it is frequently the case that a disproportionate share of women are invited to hearings, yet women remain underrepresented — in comparison to the share of female applicants — on appointment shortlists and among appointments.
3.2 Women in decision-making functions

At present, eight of the 22 universities in Austria have a female rector. Across all universities, the share of female rectorate members lies at 48%. Gender parity has also almost been achieved on university councils (share of women: 49%) and senates (share of women: 46%). Since 2010 (following the introduction of a quota regulation for university management and decision-making bodies and committees), the share of women on such bodies and committees has risen continuously. This also applies for committees installed by the senates (e.g. appointment committees). In 2016, two thirds of all appointment committees met the required quota for women. Overall, the share of women among appointment committee members lay at 43%.

At the universities of arts, at least 50% of the members of all university management bodies/committees are women. At the technical universities, just over one third of rectorate and senate members and 42% of council members are women. A total of 28% of appointment committee members are female, and only one in every ten appointment committees at a technical university meets the statutory quota for women. At the medical schools, the share of female committee members has risen appreciably in recent years; all appointment committees at medical schools now have the required share of female members. The situation at the classical universities has remained stable in recent years—with regard both to the share of women on committees and the share of appointment committees that meet the statutory quota (2016: 63%).

3.3 Gender studies at universities

The gender monitoring conducted by the Ministry of Science and Research does not extend to how gender studies is incorporated into the universities. Accordingly, a corresponding survey was carried out in the 2017 summer semester to obtain this information for the University Report 2017 (BMBWF 2018).

Half of the classical universities and universities of arts and two of the three medical schools have already set up institutes for gender studies. In contrast, none of the technical universities have yet done so. Degree programmes in gender studies are offered at three of the classical universities and at Innsbruck University of Medicine. Almost all universities offer at least individual courses or lectures in gender studies. Only two universities (University of Mining Leoben, Graz University of Medicine) offer no such courses.
Gender Equality at Universities of Applied Sciences

The description of the status quo for gender equality at the 21 universities of applied sciences (Fachhochschulen / FH) in Austria draws on the information contained in the aforementioned gender monitoring as well as on the findings of supplementary research into a) the composition of their management and decision-making bodies and committees, b) their integration of the gender dimension into research and teaching, and c) their activities to achieve gender equality.

4.1. Participation of women

The leaky pipeline for the university of applied sciences sector in Austria is characterised by an almost balanced gender ratio among students and graduates. In contrast, the share of women among teaching staff lies at only one third.

![Leaky pipeline all universities of applied sciences](image)

First degree: Bachelor programme graduates; higher degree: Master programme graduates; T&R support staff: teaching and research support staff; T&R staff: teaching and research staff; programme directors: directors of study programmes. Source: unidata, own calculations.

The research was carried out in October and November 2017 and drew on the websites of the respective universities of applied sciences and their operators as well as the website of the Austrian Association of Universities of Applied Sciences (Österreichische Fachhochschulkonferenz).
The trend in the period from 2005 to 2016 indicates a rise in the share of female students (from a baseline figure of around 40% in 2005) and an increased representation of women in teaching staff and programme directors.

This rise in the share of female students can be attributed in part to the expansion of the study programmes and subjects offered at these universities. Around 80% of health sciences students, 55% of business students (2005: 49%), 48% of business technology students (2005: 44%) and 35% of engineering students (2005: 30%) at universities of applied sciences are women.

The development in the gender ratio for university of applied sciences staff must be viewed in the context of a massive expansion in this sector as a whole. The total number of teaching staff more than doubled between 2005 and 2016, while the share of female teaching staff rose by 11%. However, this rise would have been far greater had gender parity been achieved in appointments to these additional posts. If this had been the case, the share of female teaching staff would have risen from 23% in 2005 to 39% in 2016 (instead of the actual figure of 34%). Accordingly, the expansion has only been partially utilised to increase the share of women. The share of female programme directors rose from 20% in 2005 to 34% in 2016. While there were 124 programme directors in 2005, this number had more than doubled by 2016 (to 270). In contrast to teaching and research staff, gender parity was almost attained in new programme director appointments.

4.2 Women in decision-making functions

The primary management and decision-making bodies at a university of applied sciences are the executive management team and the board. Of the total 27 managing directors of universities of applied sciences in Austria, seven (26%) are women. At nine such universities, the board or rectorate is headed by a woman. Of the total 326 board members, 35% are women. The share of women varies between 6% and 88% (the average share lies at 32%).

4.3 Gender studies at universities of applied sciences

As of autumn 2017, the 21 universities of applied sciences in Austria offered a total of 523 study programmes. Of these, 47 (9%) include specific gender studies modules. Only the University of Applied Sciences Carinthia offers a dedicated degree programme with a diversity and gender focus (BA in Disability and Diversity Studies).

Gender studies research is currently being carried out at ten universities of applied sciences. Five of these have a specific gender studies research programme or research focus.
4.4 Gender equality work at universities of applied sciences

§ 2 of the University of Applied Sciences Studies Act [FHStG] stipulates that the operator shall “give regard to gender equality and the advancement of women”. It also stipulates that they “shall strive for a balanced representation of women and men on their bodies and committees” and shall specifically address these aspects in their respective development plans (§ 8 (2) 1, FHStG). Unlike universities, the tasks and functions of those bodies responsible for gender equality at universities of applied sciences are thus not stipulated by law. Nonetheless, 16 universities of applied sciences state their commitment to gender equality and diversity in their mission statements, frequently focusing thereby not only on gender equality but also on cultural diversity, interculturality or disability. Eighteen of the 21 universities of applied sciences already have a point of contact for gender or gender and diversity. In most cases, this function is assumed by one person, who takes on the role in addition to her/his actual duties (teaching, administration). Only the University of Applied Sciences Campus Wien in Vienna has a separate Gender & Diversity department with its own team of staff. Six universities of applied sciences have working groups or steering committees for gender and/or diversity (set up, for example, by the board). In other words, there are essentially no comparable structures to the university working groups on equal opportunities in place at the universities of applied sciences.

Fifteen universities of applied sciences provide details of their gender equality or diversity activities on their websites. These usually comprise compatibility measures (13 universities of applied sciences, 12 with Audit university & family certification) or awareness-raising activities (e.g. language guidelines or training courses; ten universities of applied sciences). At six universities of applied sciences, the gender measures relate to governance (e.g. monitoring). At five, the focus lies on integrating the gender dimension into teaching and research. Four universities of applied sciences organise dedicated public events, and three have introduced measures to raise the share of women in engineering and technology (e.g. through participation in the FiT — Females in Technology initiative). Two universities of applied sciences have measures in place to advance women (e.g. mentoring). Three are particularly active in the field of gender equality (University of Applied Sciences Campus Wien, University of Applied Sciences Technikum Wien, University of Applied Sciences Upper Austria).
A total of 78,051 scientists were employed in the field of research and experimental development in Austria in 2015. Of these, 36,699 were employed in the higher education sector (primarily at universities and universities of applied sciences). In other words, over half (53%) of all scientists in Austria are employed in non-university research organisations, i.e. in state or non-profit research institutes or in the corporate sector. While the share of women among scientists in the higher education sector lies at 40%, the gender ratios in the state and non-profit sectors are almost balanced. In the corporate sector, the share of female scientists lies at 17%.

While annual statistics on gender equality are available for universities and universities of applied sciences based on administrative data, corresponding information is only available for non-university research in the science and technology sector and then only on the basis of gender equality surveys carried out at irregular intervals (2004, 2005, 2006, 2007, 2008, 2013, 2015) (Holzinger, Hafellner 2017). No comparable data is available for non-university research in the humanities, social sciences and cultural sciences.

5.1 Situation of women in non-university science and technology research

According to the 2016 Gender Equality Survey commissioned by BMVIT (Holzinger, Hafellner 2017), the share of women working in non-university science and technology research rose from 20% in 2004 to 27% in 2015.
The share of women among new staff in this field lay at 38% in 2015, thus establishing the basis for a continuous rise in the share of women. Holzinger and Hafellner (2017: 9) assume that increasing consideration is being given in recruiting procedures to achieving a balanced gender ratio.

Although the number of women employed in science and technology research is on the rise, their integration into this field is only partial. While 40% of new male hires in 2015 were employed on a full-time basis, the same only applied to 30% of female hires. 42% of new female hires work on a part-time basis. This trend towards part-time employment for women has been ongoing since 2004.

The increased hiring of women is also reflected in a rising share of women among junior researchers (2004: 19%; 2015: 29%). In contrast, the presence of women in senior researcher positions has only changed to a limited extent (2004: 17%; 2015: 20%).

In 2004, there were no female managing directors of non-university research organisations in the science and technology sector. In 2015, the share of women in top management had at least risen to 10%. The presence of women in management and decision-making bodies at non-university research organisations has risen appreciably in recent years: the share of women has more than quintupled on supervisory boards and management boards (from 4% in 2004 to 22% in 2015) and doubled on scientific advisory boards and academic boards (from 8% in 2004 to 16% in 2015).

No information is available on the anchoring of gender equality policies and gender studies in non-university research organisations.
The analysis of gender equality indicators in the Austrian science and research landscape and comparison with other EU countries reveals that the situation in Austria has improved in recent years at an above-average rate in some areas. These include above all the development in the share of women in higher education management positions and professorships. In comparison to the EU average, the gender pay gap in Austria is appreciably lower in science and research than it is in the economy as a whole. Nonetheless, the gender asymmetries still persist in other areas. Austria occupies the penultimate position in the EU ranking for the share of women among PhD / doctoral graduates, while gender segregation between disciplines also continues to define the higher education landscape.

**Different priorities**

The picture presented of the status quo and development in gender equality in the three sectors of the Austrian science and research landscape — universities, universities of applied sciences and non-university research organisations — reveals different legal frameworks on the one hand and correspondingly different developments and priorities on the other. While the university sector is characterised by a long tradition of gender equality policies and a solid legal framework for equal opportunities institutions, the gender equality goals formulated for the university of applied sciences sector (FHStG) are far less strict. To date, no gender equality goals have been explicitly anchored in law for the non-university research sector.

While the focus in the university sector lay for many years on gender equality, the trend is now moving towards diversity, i.e. a stronger consideration of other forms of diversity in addition to gender. In the university of applied sciences sector, diversity policies and measures to ensure the compatibility of career / study and family commitments dominate — supported by the relative popularity and frequency of the Audit universityandfamily.

Differences in the extent and priorities of equality activities are evident not only between the university and university of applied sciences sectors but also within the two sectors themselves, i.e. between individual universities or universities of applied sciences. Despite the fairly comprehensive legal provisions set for universities, they still have a large amount of freedom to decide how they will address gender equality in their policies and how they will apply the various provisions and instruments to drive change in the three dimensions of gender equality — balanced representation of women and men in all areas and at all levels of the hierarchy, removal of structural barriers for women and the integration of the gender dimension into teaching and research. Similarly, and despite the less binding provisions that apply to them, some universities of applied sciences have taken comprehensive affirmative action in all three dimensions. These differences within the sectors indicate the relevance of the will of university management to make gender equality a priority and the significance of established feminist and gender equality networks at a given university (Striedinger et al. 2016; Wroblewski 2015).

**Use of the potential brought about by expansion to achieve gender equality**

In recent years, most universities in Austria have succeeded in increasing the share of women in professorships and management / decision-making positions. The quota regulation for university bodies that was introduced in 2009 has undoubtedly contributed to the rise in the share of women in management / decision-making positions in this sector. The shares of women among teaching and research staff and programme directors has also risen at most universities of applied sciences. Overall, the expansion in these sectors has been utilised at least in part to increase the representation of women in top positions.

Both the university and the university of applied sciences sectors have grown significantly in recent years, but to different extents. While the number of scientific and artistic staff at universities grew by one third from 2005 to 2016, the number of teaching staff at universities of applied sciences more than doubled in the same period. In the last ten years, the health sciences discipline has also established itself...
in the university of applied sciences sector. The health sciences have the highest share of women in the university of applied sciences sector and currently account for more than 10% of its students. The expansion in staff numbers at the universities of applied sciences has thus also been shaped by the growth of a heavily female-dominated discipline, while no comparable disciplinary shifts have been evident in the university sector.

Given the massive expansion in their staff numbers, the universities of applied sciences had greater scope to increase their share of women. However, this expansion could only be utilised to a limited extent to remove gender differences. Overall, gender parity was, on average, essentially achieved in the appointments to the additional scientific posts created at universities since 2005. Had this also been the case at universities of applied sciences, the share of women among teaching staff would now lie at just under 40%, instead of at around one third (the actual figure). A look solely at the top level of scientific/academic staff—professors (universities) or programme directors (universities of applied sciences)—reveals a similar effect. Universities have thus far stronger use of their reduced scope to increase the share of women than universities of applied sciences.

Since 2005, universities in Austria have also made far stronger use of their (albeit comparatively reduced) scope to increase the share of women among teaching and research staff than the universities of applied sciences.

Teaching and research
A similar situation can be seen with regard to the integration of the gender dimension into teaching and research. While most universities have structures and corresponding measures (albeit to differing extents) in place to support gender studies in teaching and research, gender studies is only integrated sporadically into study programmes at universities of applied sciences and is only anchored in research in this sector in a few exceptional cases. As is the case with equality policies, the focus in gender studies teaching and research at universities of applied sciences lies on diversity.

Monitoring
Differences between the sectors are not only evident in the focus of gender equality policy and the developments in recent years but also with regard to monitoring. For universities, information is at least available to some extent on all three central dimensions of gender equality—balanced representation of women and men in all areas and at all levels of the hierarchy, removal of structural barriers for women and the integration of the gender dimension into teaching and research. In comparison to the other EU Member States, Austria has one of the most extensive such monitoring systems in place (Wroblewski 2018). In the case of universities of applied sciences, this applies only to the first of these three dimensions and there only with limitations. There is, for instance, no information available on professorships (only teaching staff as a whole), income disparities or appointment procedures at universities of applied sciences.

Even less information is available for the non-university research sector, where gender monitoring focuses solely on the technical and natural sciences sectors.

Austria has one of the most comprehensive gender monitoring systems for universities in the EU since it not only monitors the representation of women and men but also includes indicators and information on the removal of structural barriers for women and the incorporation of the gender dimension into teaching and research.

Conclusions
Sustainable developments towards gender equality don’t happen of their own accord, they are the result of constant activities and durable structures. Legal provisions—like those in the Austrian higher education sector—can serve as an effective basis for sustainable developments. However, they do not guarantee comprehensive gender equality policies—as the differences within the sectors (i.e. between individual universities and universities of applied science) confirm. Nonetheless, the comparison of the two sectors does reveal a high level of affirmative action towards gender equality in the university sector. The developments in the shares of women among scientific staff show that, in comparison to the universities of applied sciences, the universities have made greater use of the reduced scope gained through the expansion in their staff numbers to increase the share of women. The gender dimension is likewise integrated more extensively into teaching and research at universities than it is at universities of applied sciences.

The findings in this report thus affirm the importance of legal provisions as a useful framework for implementing gender equality. A harmonisation of standards between the three sectors—universities, universities of applied sciences and non-university research organisations—is thus recommended. This would necessitate increasing the obligatory nature of gender equality provisions for universities of applied sciences to the statutory standard applicable to the university sector and the creation of steering instruments and provisions for the non-university research sector (e.g. by coupling public research funding to gender equality measures).

Since conclusive monitoring forms the basis for an evidence-based discourse on gender equality, the development of monitoring systems should also be expedited. In the university sector, monitoring activities should be expanded to include diversity. Monitoring for the university of applied sciences sector should be extended to include all indicators monitored for the university sector. In the case of non-university research, a monitoring system should be devised that covers the whole sector.

A conclusive monitoring system not only delivers facts to identify problems (e.g. areas where women and men are treated differently), it can also deliver proof of the successful implementation of rules and structures, e.g. the quota for women in university bodies or the duty to give precedence to women in university professor appointment procedures.
References

BMBWF (2018), Universitätsbericht 2017 [University Report 2017], Vienna


Department of Gender & Diversity Management at the University of Linz (2016), Platz für Vielfalt. Menschen an der JKU. Gender & Diversity Bericht Ausgabe 2016 [Space for Diversity. People at the University of Linz. Gender & Diversity Report, 2016 Edition], Linz


European Commission (2015), Erhebung über Forschung und experimentelle Entwicklung (F&E) in Österreich [Survey on Research and Experimental Development (R&D) in Austria], Vienna. [Downloaded at: http://www.statistik.at/web_de/statistiken/energie_und_naturwissenschaften/forschung_und_innovation/forschung_und_innovation_fund_ein.html]

Striedinger, Angelika; Sauer, Birgit; Kreissl, Katharina; Hofbauer, Johanna (2016), Feministische Gleichstellungsarbeit an unterwissenschaftlichen Hochschulen: Fallstricke und Gelegenheitsfenster, Feministische Studien 34(1) [Feminist Gender Equality Work at Under-University High Schools: Pitfalls and Opportunities], Feminist Studies 34(1). [Downloaded at: https://doi.org/10.1515/fs-2016-0103]

Striedinger, Angelika; Sauer, Birgit; Kreissl, Katharina; Hofbauer, Johanna (2016), Feministische Gleichstellungsarbeit an unterwissenschaftlichen Hochschulen: Fallstricke und Gelegenheitsfenster, Feministische Studien 34(1) [Feminist Gender Equality Work at Under-University High Schools: Pitfalls and Opportunities], Feminist Studies 34(1). [Downloaded at: https://doi.org/10.1515/fs-2016-0103]

BMBWF (2017), Universitätsbericht 2017 [University Report 2017], Vienna


Department of Gender & Diversity Management at the University of Linz (2016), Platz für Vielfalt. Menschen an der JKU. Gender & Diversity Bericht Ausgabe 2016 [Space for Diversity. People at the University of Linz. Gender & Diversity Report, 2016 Edition], Linz


European Commission (2015), Erhebung über Forschung und experimentelle Entwicklung (F&E) in Österreich [Survey on Research and Experimental Development (R&D) in Austria], Vienna. [Downloaded at: http://www.statistik.at/web_de/statistiken/energie_und_naturwissenschaften/forschung_und_innovation/forschung_und_innovation_fund_ein.html]

Striedinger, Angelika; Sauer, Birgit; Kreissl, Katharina; Hofbauer, Johanna (2016), Feministische Gleichstellungsarbeit an unterwissenschaftlichen Hochschulen: Fallstricke und Gelegenheitsfenster, Feministische Studien 34(1) [Feminist Gender Equality Work at Under-University High Schools: Pitfalls and Opportunities], Feminist Studies 34(1). [Downloaded at: https://doi.org/10.1515/fs-2016-0103]


Wroblewski, Angela; Gindl, Michala; Leitner, Andrea; Pellert, Ada; Wertsch, Birgit (2007), Wirkungsanalyse frauenfördernder Maßnahmen im bmbw. Material zur Förderung von Frauen in der Wissenschaft. Band 21 [Analysis of the Impact of Measures to Promote the Careers of Women in the bmbw. Material to Promote the Careers of Women in Science and Research. Volume 21], Vienna: Kommissionsverlag Österreich

Glossary

**Gender equality** goes beyond equal treatment and includes positive discrimination (promotion of women and minorities) and measures to improve work-life compatibility.

**Gender mainstreaming.** The “(re)organisa-
tion, improvement, development and eval-
uation of process policies, so that a
gender equality perspective is incorpo-
rated in all policies at all levels and at all
stages, by the actors normally involved in
policy-making” (Council of Europe 1998)

**Gender monitoring.** The routine, sys-
tematic collection of gender-segregated
information on a particular pheno-
menon with the goal of identifying trends
and/or changes over time.

**Gender pay gap.** A measurement of the
difference in income between women and
men. The gender pay gap expresses the
average income of women as a percent-
age of the average income of men, i.e. if
men in a particular job earn on average
€1,000, and women earn €800, women earn
on average only 80% of the income of
their male counterparts.

**Glass Ceiling Index.** Measures the share
of female professors in relation to the
share of female scientific and artistic
staff. A score of 1 indicates that women
and men have equal chances of promo-
tion to a professorship; the lower the
score, the lower the chances of promo-
tion and the “thicker” the glass ceiling.

**Grade A.** International classification for
the highest academic positions in univer-
sities. In Austria, this includes university
professorships, endowed professor-
ships, visiting R&D professorships, emer-
titus professors and retired professors still
working in R&D.

**Grade B.** International classification for
the second-highest academic positions
in universities. In Austria, this includes asso-
ciate professors, lecturers and assistant
professors.

**Grade C.** International classification for
scientific and academic staff in univer-
sities. In Austria, this includes research
and teaching assistants, contract-based
research and teaching assistants, staff
scientists, senior scientists/artists, junior
doctors, doctors in residency and assis-
tants in training.

**Habilitation.** Post-doctoral qualification
required in some countries (including
Austria) to gain a full professorship at a
university.

**Indicator.** A measurement or value for
something that cannot be directly
depicted and is ideally described using a
theoretical construct. An income that lies
below a certain threshold, for instance,
can be used as an indicator for the “poor-
erty” concept. In other words, an indica-
tor should not stand for itself but always
for the construct associated with it.

**Intersectionality.** The interconnected
ature of various inequality dimensions
such as race, class, gender, age, etc.
regarded as creating overlapping and
dependent systems of discrimination
or disadvantage.

**Leaky pipeline.** The phenomenon that
while women make up the majority of
students, the number of women falls dra-
matically at every step on the academic/
scientific career ladder. It quasi “leaks
away” in the traditionally male-dominat-
ed academic/scientific structures.

**Outcome-oriented budget approach.**
Since 2013, the Austrian Federal Con-
stitution foresaws an outcome-oriented
budget approach that includes the
goal of establishing gender equality in
budgetary measures. This approach is in-
tegrated into the complete budget cycle,
thus ensuring that the desired outcomes
of any administrative action also play a
central role in the medium- and long-term
planning, execution and controlling of
budgets.

**International classification for
intellectual capital report [Wissensbil-
anz].** Provides information on the intan-
gible assets of a university. In Austria, the
rectorate of each university is required
to submit an intellectual capital report
to the university council by 30 April each
year for approval and forwarding to the
BMBWF. Preparation and content guide-
lines for the intellectual capital report are
provided in the corresponding law (§ 13
(6) USG 2002).

**BMBWF.** Federal Ministry of Family,
Senior Citizens, Women and Youth.

**BMVIT.** Ministry of Transport,
Infrastructure, Mobility andgt;
and Telecommunications.

**BMUKK.** Ministry of Transport,
Infrastructure, Mobility andgt;
and Telecommunications.

**BMBWF.** Federal Ministry of Family,
Senior Citizens, Women and Youth.

**Executive summary** — describes the
short-term and medium-term goals of
the report.

**Introduction.** - describes the
context and overall objective of
the report.

**Methodology** — describes the
method of the analysis and
how it is structured.

**Findings** — describes the
results of the analysis.

**Discussion** — describes the
implications of the findings,
including areas for action.

**Conclusion** — describes the
conclusions of the report.

**Recommendations** — describes
the suggested actions to be
implemented.

**References** — describes
the sources and references
used in the report.
Performance agreement [Leistungsvereinbarung]. A contract under public law concluded between the BMBWF and the individual university for a three-year period. The performance agreement outlines the services to be provided by the university (in particular in teaching and research) and the corresponding budget allocated to it by the Federal Government (§ 13 UG 2002).

Promotion of women. The targeted promotion of women using positive discrimination to increase their participation in areas where they are discriminated against or underrepresented compared to men.

Quota / quota regulation (policy). Defines the concrete share of members of a specific group to be included in the allocation or appointment of functions, offices, resources, etc.

Segregation. The concentration of women and men in different areas. Horizontal segregation refers to the concentration of women and men in specific professional status groups.

She Figures. A collection of data compiled by the EU on gender equality in research and innovation (R&I) in Europe.

unidata. An information system maintained by the BMBWF containing current facts, figures and statistics on the higher education sector in Austria.

Working Group on Equal Opportunities. In Austria, the senate of each university is required to set up a working group on equal opportunities responsible for “combating gender discrimination as well as discrimination on the basis of ethnicity, religion or conviction, age, or sexual orientation by university governing bodies and for advising and supporting the university’s members and governing bodies in connection with these issues” (§ 42 (1) UG 2002).

List of Abbreviations

| AT   | Austria       |
| BA   | Bachelor of Arts |
| BE   | Belgium       |
| BG   | Bulgaria      |
| BMBWF| Bundesministerium für Bildung, Wissenschaft und Forschung [Austrian Federal Ministry of Education, Science and Research] |
| BMDW | Bundesministerium für Digitalisierung und Wirtschaftswachstum [Austrian Federal Ministry of Digital and Economic Affairs] |
| BMVIT | Bundesministerium für Verkehr, Innovation und Technologie [Austrian Federal Ministry of Transport, Innovation and Technology] |
| BMWFV | Bundesministerium für Wissenschaft, Forschung und Wirtschaft [Austrian Federal Ministry of Science, Research and the Economy] (until 2017, now: BMBWF) |
| CH   | Switzerland   |
| CY   | Cyprus        |
| CZ   | Czech Republic |
| DE   | Germany       |
| DK   | Denmark       |
| EC   | European Commission |
| EE   | Estonia       |
| EL   | Greece        |
| ERA  | European Research Area |
| Erasmus+ | EU programme to support education, training, youth and sport in Europe. |
| ES   | Spain         |
| EU   | European Union |
| EU-28 | Average for the 28 EU Member States |
| FH   | Fachhochschule (University of Applied Sciences) |
| FHSIG | Fachhochschul-Studiengebet [Federal Act on University of Applied Sciences Degree Programmes] |
| FI   | Finland       |
| FR   | France        |
| FWF  | Fonds zur Förderung der wissenschaftlichen Forschung [Austrian Science Fund] |
| GCI  | Glass Ceiling Index |
| H2020 | Horizon 2020, EU funding programme for research and innovation |
| HR   | Croatia       |
| HU   | Hungary       |
| IE   | Ireland       |
| IL   | Israel        |
| IS   | Iceland       |
| ISCED | International Standard Classification of Education |
| IST Austria | Institute of Science and Technology Austria |
| IT   | Italy         |
| LGBTIQ | Lesbian, gay, bisexual, transgender/transsexual, intersex, queer |
| LT   | Lithuania     |
| LU   | Luxembourg    |
| LV   | Latvia        |
| MA   | Master of Arts |
| MK   | Macedonia     |
| MT   | Malta         |
| NL   | The Netherlands |
| NO   | Norway        |
| ÖAW  | Österreichische Akademie der Wissenschaften [Austrian Academy of Sciences] |
| PhD  | lat: philosopha doctor, Doctor of Philosophy |
| PL   | Poland        |
| PT   | Portugal      |
| RO   | Romania       |
| SE   | Sweden        |
| SI   | Slovenia      |
| SK   | Slovakia      |
| T&R  | Teaching and research |
| UK   | United Kingdom |
“It is impossible to imagine the future of science and research without gender equality—because that would be the past.”

EVA BLIMLINGER, PRESIDENT OF UNIVERSITIES AUSTRIA