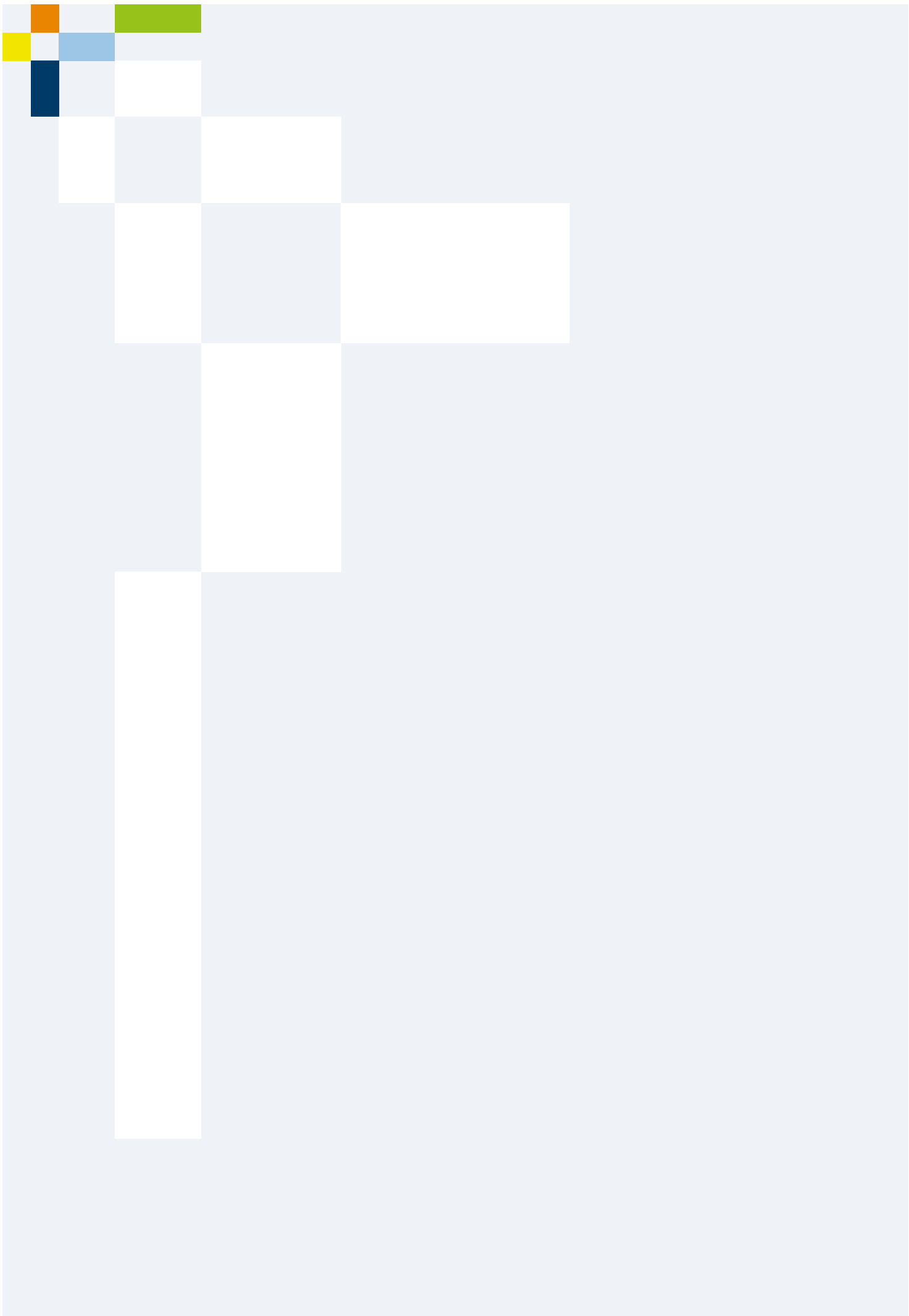




Gender Equality Report and Action Plan for the Academy

acatech (Ed.)



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1 Objectives

In its “**Principles for Gender Equality at acatech**”, the Academy established the general goal of equal treatment of women and men. Since 2018, it has published separate Gender Equality Action Plans for the acatech Office and the Academy every two years, reviewing progress towards the relevant targets, evaluating the measures that have been implemented and updating the plans as necessary. As well as complying with the relevant federal and regional gender equality legislation, this reflects acatech's conviction that it is necessary to consider as broad and balanced a range of perspectives as possible in order to promote technology in Germany in a manner that is in the public interest and in particular to strengthen public understanding of the importance of leading-edge technologies, as stipulated in acatech's **statutes**.

As the National Academy of Science and Engineering, acatech is strongly committed to ensuring that technology is both inclusive and shaped by appropriate values. Accordingly, acatech believes that it is imperative for technology development to be informed by European values right from the outset, in keeping with a “values by design” approach.¹ This approach naturally includes gender equality, an issue on which acatech is guided by the **EU Gender Equality Strategy 2020–2025**.² The EU strategy pursues a dual approach of gender mainstreaming combined with targeted actions and intersectionality.

In 2022, the EU also published a paper³ in the context of the European Green Deal that underlines the social dimension of sustainability measures. This illustrates the fact that social inequality cannot be tackled separately from sustainability and other strategic issues – all of these matters must be addressed together in an integrated manner:

“There are strong inter-relationships between equal opportunities and climate change, and hence strong links between equal opportunity strategies and green-deal type strategies are to be expected.”

It is thus evident that, rather than being treated as a peripheral issue, the gender and diversity dimensions should form an integral

part of the methods, work programme and objectives of research projects and policy advice.⁴

In its guidelines, the Academy commits to providing policy advice that reflects the scientific state of the art. This includes following the German Research Foundation (DFG) guidelines for safeguarding good research practice, which explicitly state that **gender and diversity** should be taken into account in research practice. **In 2022, the DFG published new gender equality and diversity standards**⁵ aimed at promoting both gender equality and **diversity in research**:

“But outstanding research is characterised by the structural integration of diversity both in the development of research ideas and in the composition of working groups. [...] The aim is to create an ‘integrated gender equality and diversity strategy’.”

According to this approach, gender equality and diversity should be addressed together. This will also support efforts to tackle intersectionality, i.e. overlapping aspects of inequality. Gender equality in research remains an important priority for equal opportunities policy. As far as acatech is concerned, this means that the topics chosen for the Academy's projects and the processes used while working on them will continue to take the gender dimension into account. In addition, the acatech Office will create a new diversity officer role to make sure that other dimensions of diversity are reflected more strongly going forward.

The principles outlined above translate into **two concrete objectives** for acatech. Firstly, the proportion of women on all the Academy's bodies and in particular in leadership roles should be increased to an initial target of thirty percent. And secondly, the gender perspective should be incorporated even more systematically into the advice that acatech provides to policymakers and the public.

Accordingly, the measures set out in this document are geared towards ending existing inequalities as soon as possible and continuing to leverage the potential of mixed-gender bodies to ensure the ongoing excellence of the Academy's work and policy advice.

1 | See Kagermann, H./Wilhelm, U.: *European Public Sphere. Gestaltung der digitalen Souveränität Europas* (acatech IMPULS), Munich 2020.

2 | See Europäische Kommission: *Strategie für die Gleichstellung der Geschlechter 2020–2025*, Brussels 2020.

3 | See European Committee of the Regions/Martinos, H./Tödting-Schönhofer, H./Jeffrey, P.: *Equal Opportunities and Responsibilities in the Implementation of the European Green Deal*, Brussels 2022.

4 | See Deutsche Forschungsgemeinschaft: *Guidelines for Safeguarding Good Research Practice. Code of Conduct*, 2022.

5 | See Deutsche Forschungsgemeinschaft: *Die Forschungsorientierten. Gleichstellungs- und Diversitätsstandards – Zusammenfassung und Empfehlungen 2022*, Bonn 2022.



To help identify and prioritise targeted measures for increasing the percentage of women, Chapter 2 provides an overview of the latest figures on the percentage of women at acatech and the changes that have been achieved to date. Chapter 3 offers a

critical evaluation of these changes. Finally, Chapter 4 discusses a series of concrete measures for implementing equal opportunities at acatech.

2 Review of the current situation

2.1 acatech's structure and working methods

acatech sees itself as a flexible working academy comprising a network of members from the scientific and business communities. It is composed of various bodies, each with its own structure: the committees, the Executive Board, the Board of Trustees, the General Assembly, the Senate and the acatech Office. The mission of the Academy as a whole is to add value for citizens by providing policymakers and society with independent advice that is in the public interest, promoting cooperation between science and industry, representing the technological sciences at home and abroad and fostering young talents in the STEM subjects. A broad spectrum of different perspectives is key to the provision of balanced advice, and acatech has followed this principle in

the composition of its project groups and networks ever since it was founded.

The first pillar of the Academy comprises the scientific Members, who are invited to join acatech because of their outstanding scientific achievements and high professional reputation. They are drawn from the fields of engineering, the natural sciences and medicine, as well as related fields in the humanities and social sciences. New Members are invited to join acatech with the specific aim of bringing fresh ideas and perspectives to the Academy. The second pillar of the Academy is the Senate, whose members are leading figures from technology companies and organisations, as well as the major science organisations. acatech's Members and Senate work on an unpaid basis in thematic networks and project groups. Meanwhile, different stakeholders from civil society are represented on the Academy's management and supervisory bodies (the Executive Board and Board of Trustees). The acatech Office supports the voluntary work undertaken by the Members, assisting with the development, execution and management of the Academy's projects.

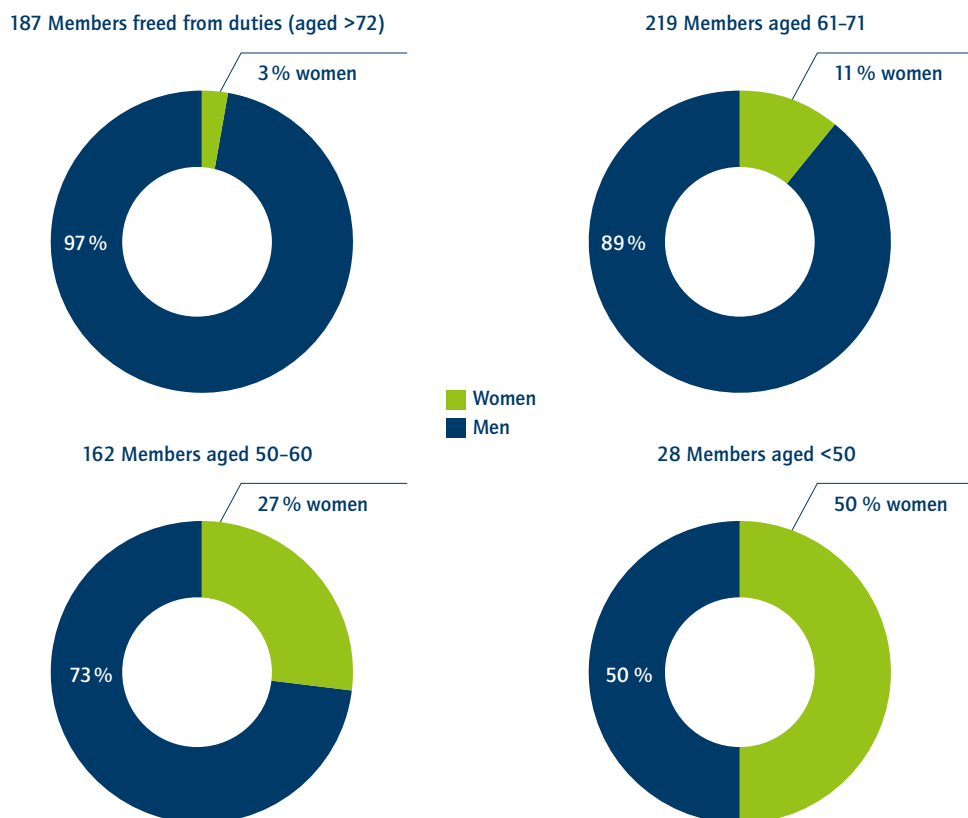


Figure 1: Breakdown of Members in 2022 (as of September 2022)



2.2 Women in the Academy

acatech is committed to bringing the percentage of women among the Academy's members into line with the proportion of female professors in the STEM subjects and other innovation-oriented research fields. Since acatech wishes to act as a role model on this issue within the technological science community, it is particularly committed to increasing the number of women in prominent positions and ensuring their visibility.

As of September 2022, 14.5 percent of all acatech's Members were women. This constitutes a slight increase of one percent compared to the previous report. However, major differences continue to exist across the different age groups (Figure 1). While the proportion of women in the over-72 age group was three percent in 2022, the highest proportion of women (50 percent) continues to be found among the under-50s. A comparison with the previous report reveals that the size of the youngest age group, which is the smallest group of Members overall, has increased slightly since 2019. The overall proportion of women among the Academy's ordinary Members who are not freed from duties stood at 21.1 percent in September 2022, a 1.8 percent increase compared to 2019.

acatech's Members carry out the Academy's work on an unpaid basis in thematic networks and working groups. Only one of these 13 groups is chaired by a woman, equivalent to just 7.7 percent. There is still significant variation in the percentages of women in the different working groups.

The target of at least 30 percent women in all acatech's bodies and working groups was met in just 23 percent of the working groups and thematic networks (3/13): WG Education (50 percent), WG Basic Questions in Science and Engineering (30 percent) and TN Healthcare Technologies (30 percent) (see Figure 2).

This is roughly in line with the proportion of female mathematics and natural science professors at German universities (21.5 percent) (Source: Federal Statistical Office).

The thematic networks and working groups establish project groups in which the Academy's Members collaborate on an unpaid basis with external experts from science and industry. Given that just 21.1 percent of acatech's Members who are not freed

from duties are women, it is evident that the female scientists elected to the Academy show a disproportionately high level of active engagement in the working groups and as experts. On the other hand, hardly any of the working groups or thematic networks are chaired by women. Increasing the visibility of those women who are already involved by giving them more leadership roles could help to encourage more women to volunteer their services.

Thematic networks and working groups	% women (2022)	% women (2019)
TN Mobility, Logistics and Aerospace Engineering	10,6 %	13,9 %
TN Healthcare Technologies	29,7 %	32,1 %
TN Biotechnology and Bioeconomy	21,3 %	14,0 %
TN Energy and Resources	11,3 %	8,2 %
TN Information and Communication Technology	16,3 %	17,7 %
TN Nanotechnology	8,1 %	11,8 %
TN Materials Science and Engineering	13,0 %	10,4 %
TN Product Development and Production	13,3 %	10,5 %
TN Safety and Security	18,2 %	21,1 %
WG Education	50,0 %	50,0 %
WG Basic Questions in Science and Engineering	30,0 %	18,8 %
WG Economics and Innovation Research	17,6 %	18,8 %
WG Technology and Society	20,0 %	20,0 %

Figure 2: Percentage of women in thematic networks and working groups (as of October 2022)

2.3 Women in the Executive Board

The Executive Board is responsible for the Academy's scientific leadership. Its members are elected by the General Assembly and the Senate. acatech's Managing Director also serves as a non-voting ex officio member of the Executive Board. A maximum of twelve members are elected from the General Assembly and up to six are elected from the Senate. Five of the Executive Board's 19 members in 2022 were women (26.3 percent). Further work is therefore needed to increase the representation of women on the Executive Board in order to meet the thirty percent target.

3 Evaluation of progress towards acatech's gender equality targets

The Academy's efforts to increase the percentage of women were recognised when it was awarded the Total E-Quality Award in 2019. acatech also hosted the official awards ceremony, further increasing the visibility of its achievements in this area. The Academy will be striving to obtain the award again in 2023.

It is pleasing to report that the Academy has made gradual progress in almost all of the evaluated areas. This reflects the high level of commitment to achieving the relevant targets among the Members.

3.1 Evaluation of internal engagement

3.1.1 Thirty percent target for Academy candidate lists

144 new Members joined the Academy in 2021/2022, including 13 women (29.5 percent).

The figures relating to the age structure of the Academy's Members show that in the 40-50 age group, the proportion of female Members (50 percent) and female candidates (2021: 18.7 percent, 2022: 43.75 percent for ordinary Members) is much higher than the proportion of female mathematics and natural science professors in Germany (21.5 percent in 2021⁶). This indicates that the target is proving effective. However, the thirty percent target has yet to be met in every age group. In the 50-60 age group, which accounts for the highest number of candidates, 27.7 percent of candidates are currently women.

Despite the progress in increasing the representation of women in the Academy, acatech is therefore of the opinion that further action is required. Going forward, the aim is for at least thirty percent of the members of all acatech's bodies to be women. Accordingly, as well as setting a target for new Members, additional measures are being introduced regarding the composition

of new thematic networks, working groups and project groups (see Chapter 4).

3.1.2 More women in project leadership roles

The Academy has achieved the concrete objective of increasing the percentage of women in project leadership roles (2022: 12.2 percent; 2019: 8.4 percent). Of its 41 project groups, three are chaired by women and a further two have female co-chairs. Despite this 50 percent increase, further efforts will be required to achieve the longer-term aim of thirty percent women in project leadership roles. To this end, acatech will continue to highlight the thirty percent target in its guidelines for the establishment of project groups and communicate it to the individuals involved.

3.1.3 More women from industry in the Senate

In 2022, the percentage of women nominated by Senate companies to join the Academy rose slightly to 11.5 percent. It remains difficult to recruit more prominent female figures from industry to the Senate, not least due to the fact that the number of women in corporate leadership roles remains very low. The aim going forward is for the percentage of women in the Senate to increase in line with the proportion of women in leadership roles in industry.

3.2 Evaluation of public engagement

3.2.1 "Women on the stage" at acatech am Dienstag

The last report set a thirty percent target for female speakers and moderators at the public *acatech am Dienstag* (aaD – acatech on Tuesday) events. On average, 30.5 percent of panellists (including moderators but excluding people giving welcoming remarks) in 2021 and 2022 were female. We are delighted that the thirty percent target was achieved and hope to raise this figure to fifty percent over the next few years.

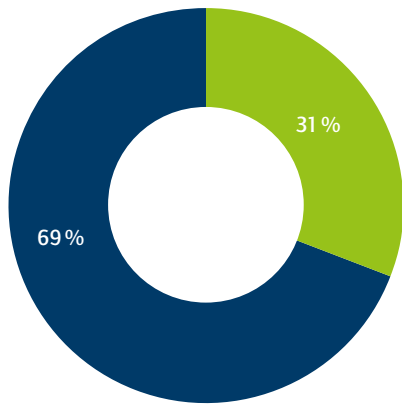
3.2.2 Incorporating the gender and diversity dimensions in our publications: the acatech HORIZONS series

The acatech HORIZONS series is an example of a publication that places particular emphasis on the gender and diversity dimensions. These publications are aimed at the general public. Using simple language and graphics, this publication format seeks to

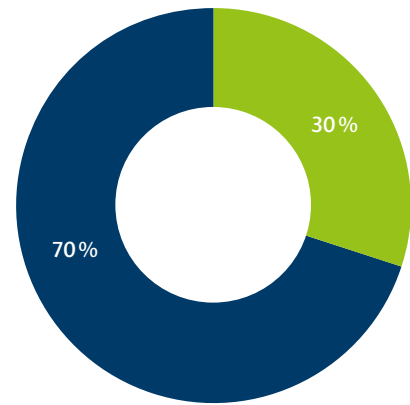
6 | <https://de.statista.com/statistik/daten/studie/197908/umfrage/frauenanteil-in-der-professoren-schaft-nach-facherguppen/> – percentage of female professors in Germany in 2021 by subject group (as of 11.11.2022).



Panellists including Moderators 2021



Panellists including Moderators 2022



■ female
■ male

Figure 3: Percentage of female panellists at acatech am Dienstag (aaD) events

provide a concise overview of complex topics that the public is not yet familiar with.

The publications are targeted at interested groups, with formats specially tailored to the topic in question. In accordance with Guideline 9 of the DFG (Deutsche Forschungsgemeinschaft) Code, each topic is examined to determine whether it has a gender dimension and, if so, this is incorporated into the publication. A particular effort is made to appeal to women and girls, both in the editing of the publications and in the accompanying communication and events. The publications use gender-neutral language, while each edition also includes a "gender information box" that highlights the gender equality and diversity dimensions of the topic in question.

Five new HORIZONS publications have come out since 2019, on artificial intelligence in industry, quantum technologies, urban mining, transforming mobility and biotechnology.

The Academy will also endeavour to include the gender and diversity dimensions in a similar manner in other acatech formats and publications.

3.2.3 Involving more of acatech's female scientists in media relations

The principle of strengthening the profile of female scientists is firmly established in the Academy's media relations work. However, acatech's influence is limited, since it is up to the media to choose which, if any, of our suggested interviewees they speak to. As we continue to develop our communication strategy, a stronger focus on female Academy Members in the communication delivered via acatech's digital channels (social media, website) can help to increase their media visibility.

4 Measures

4.1 Measures to increase the percentage of women in the Academy

The following measures are designed to increase the percentage of women in the Academy, especially among the scientific Members and in the Senate. acatech is also committed to increasing the percentage of women leading projects and thematic networks, thereby strengthening the visibility of its female scientists.

4.1.1 Thirty percent target for Academy candidate lists

The previous report's target of at least thirty percent women among the candidates proposed for election as scientific Members was exceeded in 2022, when women accounted for 45 percent of the proposed candidates. This is thanks to the Executive Board's efforts in actively monitoring and ensuring implementation of the targets.

In order to further increase the percentage of female Members, the Academy is striving to identify outstanding female scientists early on in their careers, involve them in the Academy's network through participation in its thematic projects and initiatives, and elect them to the Academy as soon as possible. acatech will support the Members in this endeavour and ensure that they are regularly informed about the targets and proposed measures.

4.1.2 More women from industry in the Senate

The Executive Board remains strongly committed to increasing the number of women in the Senate. Transparent communication of acatech's gender equality goals to the Senate companies supports the Executive Board in this endeavour.

New networking events specifically aimed at female executives from Senate companies will seek to increase acatech's visibility in the Senate companies and highlight the importance of gender equality within the Academy. This should indirectly help to increase the percentage of women in the Senate network and eventually also in the Senate itself.

As part of the measures to support diversity, similar events should be explored e.g. with the Senate companies' LGBTQI networks.

4.1.3 More women in project leadership roles

The Executive Board is strongly committed to attracting more women and ensuring that more women occupy visible roles such as the chairs of thematic networks or project groups. The inclusion of this goal in the quality management handbook (as a guideline for the establishment of project groups and thematic networks) will ensure that everyone involved is regularly reminded of its importance. In addition, a special event will be held to inform all acatech Office staff about this measure so that it can be taken into account and actively implemented when establishing new project groups.

Through this measure, acatech is also providing targeted support to overcome biases among acatech's Members and project partners. acatech also continues to create dual leadership positions as a stepping stone towards bringing the percentage of women leading project groups and thematic networks into line with the overall percentage of women in the Academy.

4.2 More visibility for female experts

One of acatech's goals is to inform the public about new technologies from an early stage and discuss the fundamental issues regarding their introduction. The Academy understands that when new technologies are addressed in policy advice documents, at events and in the media, female contributors, speakers and discussion participants are particularly important role models. The recent progress in increasing their representation should be continued.

In order to further raise the public profile of female experts, acatech will make a targeted effort to include more women on lists of proposed contributors, for example speakers for different event formats such as round tables, panel discussions, etc. The Academy must continue to work towards the target of thirty percent women.

The Academy will also redouble its efforts to put forward more female experts for media interviews and raise awareness of their expertise by strengthening their presence on acatech's digital channels. Since the last report, there has been a particular effort to implement this policy on acatech's social media channels, and this should remain a priority going forward.



4.3 Incorporating the gender dimension into policy advice

acatech is committed to reflecting the different realities encountered by women and men in some aspects of their everyday lives in its choice of policy advice topics, the development of policy advice content and the presentation of the results.

In accordance with Guideline 9 of the DFG (Deutsche Forschungsgemeinschaft) Guidelines for Safeguarding Good Research Practice, in future the Academy will routinely take the gender dimension into account in its project and working groups, evaluate the relevant topics, content and outputs from a gender perspective and, where relevant, include the gender dimension in its publications.

At the 19th **Gender Summit** in Seoul, which was held virtually due to the SARS-CoV-2 pandemic, the Academy's representative Prof. Martina Schraudner strongly advocated the inclusion of the gender dimension in policy advice. The 21st Gender Summit "Gender Equality, Diversity, Inclusion post-Corona: Quo vadis?" was originally due to be held in Munich in 2021, but ended up being held virtually due to the pandemic. The summit was organised by the DFG and the Alexander von Humboldt Foundation. acatech was represented by Prof. Martina Schraudner and acatech President Prof. Jan Wörner, who gave the welcome address.

4.4 Consolidating the measures through communication

The rising percentage of women in the Academy and the progress achieved with regard to the public visibility of female experts bear witness to acatech's initial success in raising awareness among its Members. Nevertheless, the lessons learnt from the previous

Action Plans point to the need for continuous communication to remind people of the goals and measures. This is key to ensuring that both the short-term targets for the next evaluation and the longer-term goals can be achieved within an appropriate time-frame.

The first step involves publishing the goals in the Gender Equality Action Plan approved by the Executive Board and communicating them both internally and externally. The bodies and functions that are key to meeting the targets will receive ongoing support in their efforts and will be kept informed of the progress achieved

4.5 Overview of the Academy's gender equality measures from 2023

The table below provides an overview of the different categories of gender equality actions.

Internal measures	External measures
Increase percentage of women among Academy's Members	More visibility for female experts
Increase percentage of women leading projects and thematic networks	Incorporate gender dimension into advice for policymakers and the public
Raise awareness of need to take gender dimension into account	Recognise importance of diversity and a broad range of perspectives
Regular communication of goals	Kommunikation der Ziele
Organise events specifically targeted at female employees in Senate companies in order to increase the percentage of women in the Senate network and in the Senate itself.	

Table 1: Overview of the Academy's gender equality measures from 2023

The report and action plan on gender equality in the Academy were approved by the acatech Executive Board on 24 November 2022.



About acatech – National Academy of Science and Engineering

acatech advises policymakers and the general public, supports policy measures to drive innovation, and represents the interests of the technological sciences internationally. In accordance with its mandate from Germany's federal government and states, the Academy provides independent, science-based advice that is in the public interest. acatech explains the opportunities and risks of technological developments and helps to ensure that ideas become innovations – innovations that lead to greater prosperity, welfare, and quality of life. acatech brings science and industry together. The Academy's Members are prominent scientists from the fields of engineering, the natural sciences and medicine, as well as the humanities and social sciences. The Senate is made up of leading figures from major science organisations and from technology companies and associations. In addition to its headquarters at the acatech FORUM in Munich, the Academy also has offices in Berlin and Brussels.

For more information, please see www.acatech.de.



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