International Day of Women & Girls in Science 2026

Women and Girls in Science

An ADVANCE-TB survey

Acknowledgements:

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We thank all ADVANCE-TB members who participated in this survey and gave their honest opinion.

Cover picture: Female chemists in the laboratory of the glucose factory of Nicholls, Nagel & Co. Ltd., Trafford Park, Manchester, September 1918; photograph by George P. Lewis.

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ADVANCE-TB survey on Women and Girls in Science

Insights from members for the International Day of Women and Girls in Science 2026

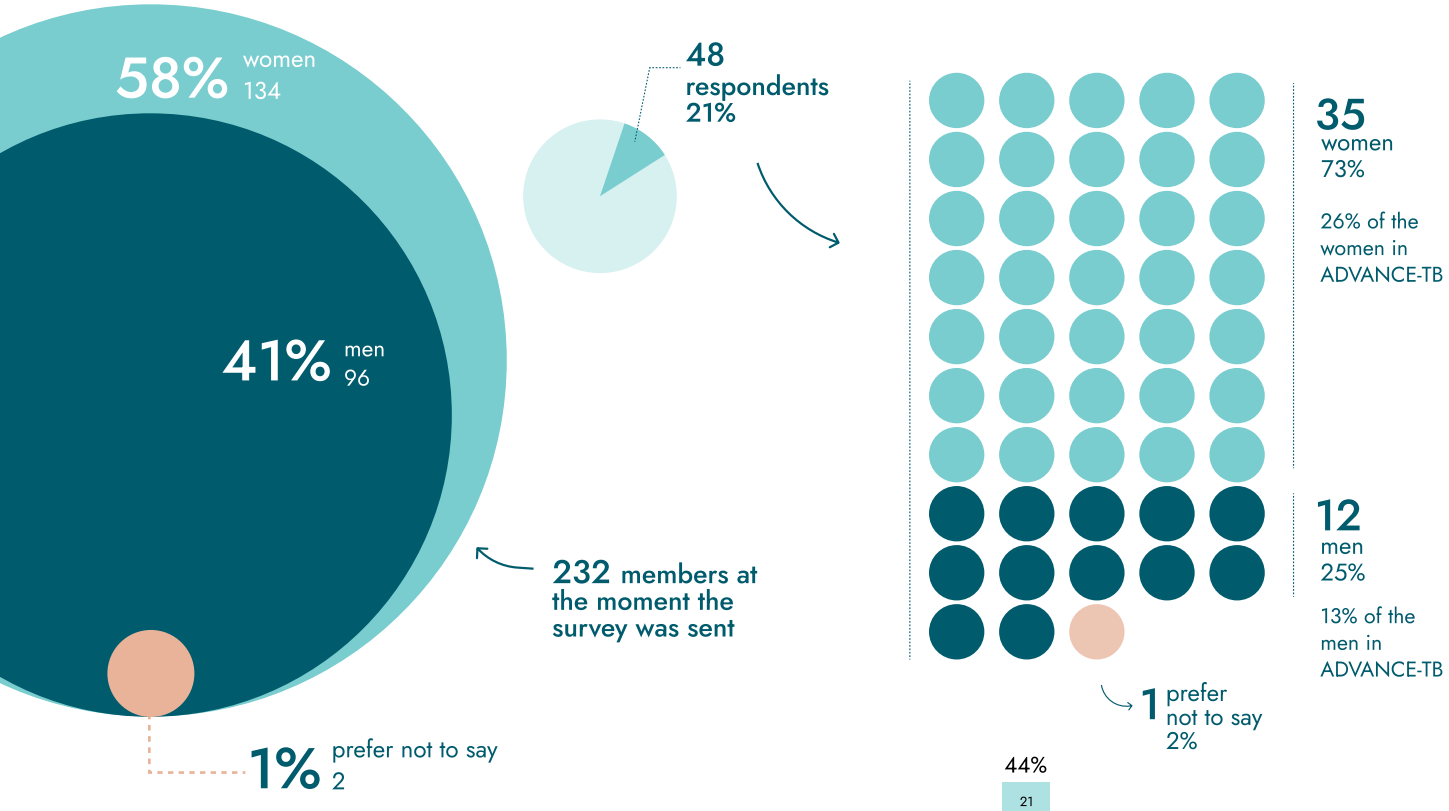
In alignment with the **International Day of Women and Girls in Science**, at ADVANCE-TB COST Action (CA21164) we have been committed to reflecting on gender equity within scientific careers and amplifying the voices of our community. At the end of 2024, we designed and circulated an anonymous survey among our members to better understand perceptions, experiences, and challenges related to gender equity in science.

The results of the initial survey, completed by 24 members, was published on February 11th 2025, during the International Day of Women and Girls in Science. However, given the limited number of responses and the relevance of the topic, we decided to reopen the survey until October 2025. This extended data collection allowed for a more robust and representative analysis of ADVANCE-TB members' perspectives, forming the basis of the present report for the International Day of Women and Girls in Science 2026.

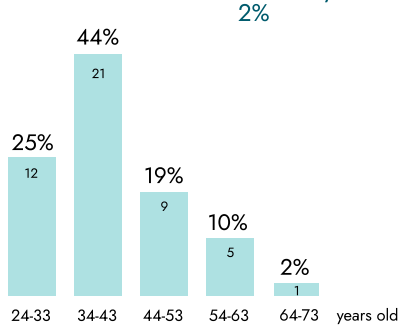
The survey explored awareness of gender disparities, perceived and experienced challenges, workplace culture, career progression, and attitudes toward initiatives aimed at promoting gender equity in science.

Survey participation and demographics

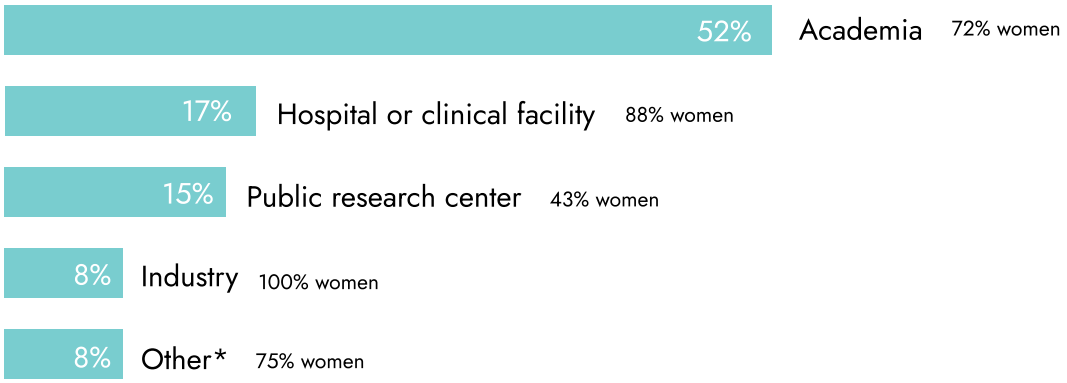
The survey was sent to a total of 232 ADVANCE-TB members and received **48 responses**, representing approximately 21% of the membership. The majority of respondents were women (73%, 35/48, which corresponded to 26% of women in ADVANCE-TB.



The **age distribution** showed a broad representation across career stages, with the majority being between 34 and 43 years, followed by 24 to 33 years, reflecting a predominantly early- to mid-career scientific community.

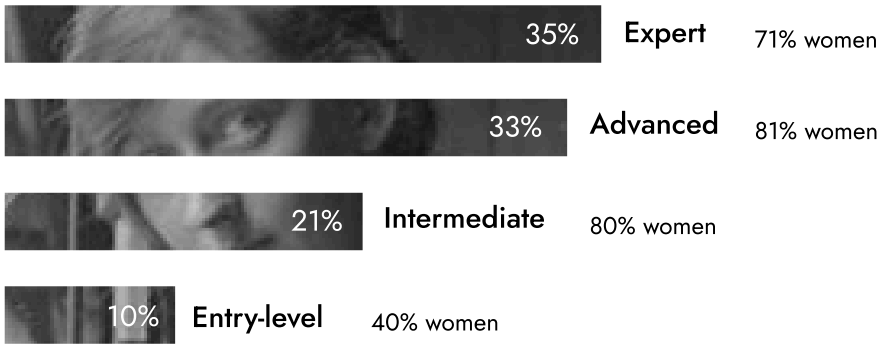


Workplace sectors were diverse, with most respondents working in Academia. Women constituted the majority of respondents across nearly all workplace types, particularly in hospitals, industry, and academia.



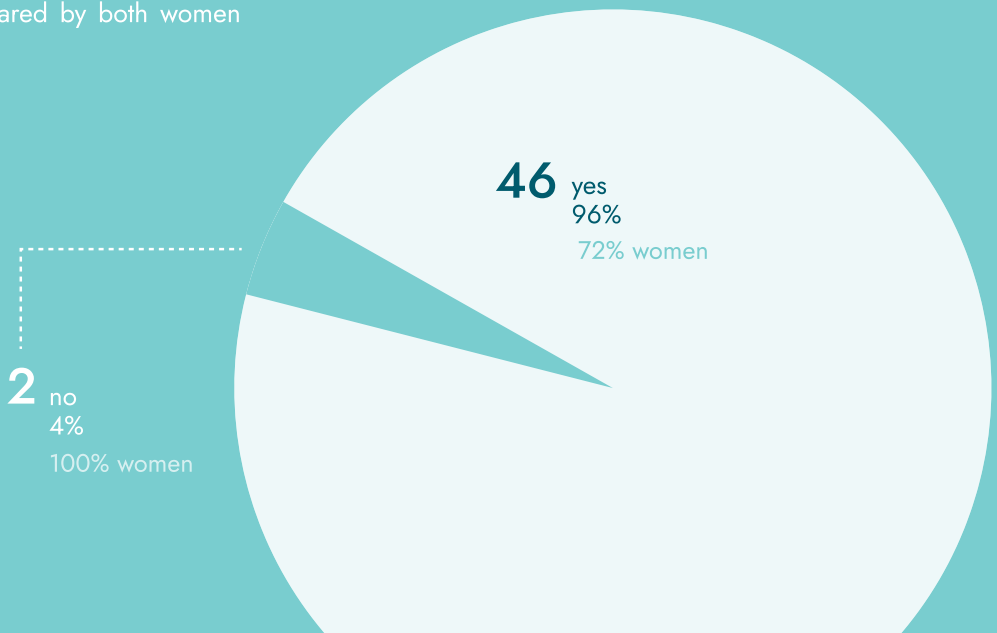
*Hospital & university, NGO, non-governmental organization, private research center (non-profit)

Experience levels ranged from entry-level to expert, with the largest proportions identifying as expert (35%) or advanced (33%), indicating that responses reflect both lived experience and long-term career observation.

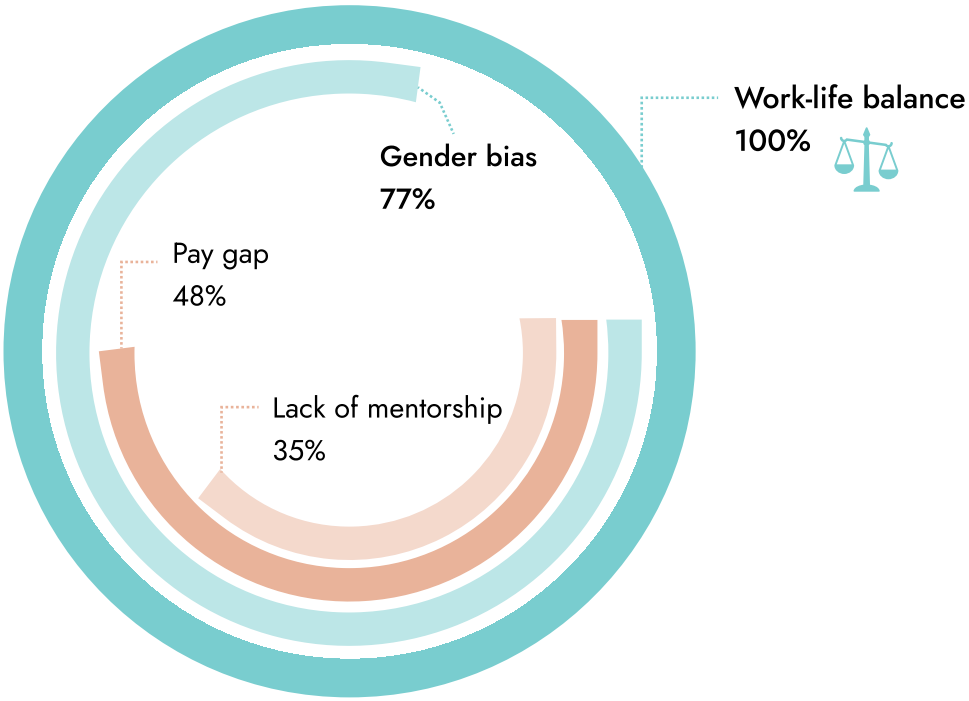


Perceptions of challenges faced by women in science

An overwhelming 96% of respondents agreed that **women face challenges in pursuing scientific careers**. This perception was shared by both women and men.



When asked to identify specific **challenges**, respondents highlighted work-life balance and gender bias as the main challenges they thought women in science face.

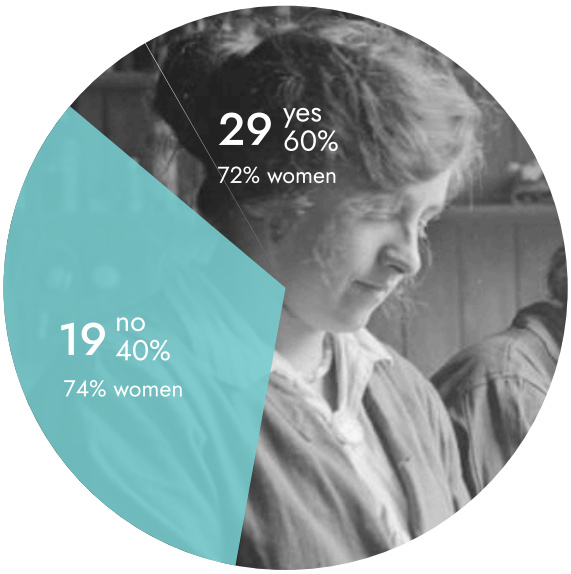


Additional challenges raised through open responses included lack of acknowledgement, glass ceiling effects, limited leadership opportunities, and the career impact of pregnancy and maternity leave.

These findings indicate that, while structural barriers such as pay and representation persist, cultural and organisational challenges, particularly around balancing professional and personal responsibilities, remain central concerns.

Experiences of gender bias

A significant proportion of respondents (60%) reported having personally witnessed instances of gender bias in scientific fields. Notably, both women and men reported observing such bias, suggesting that **gender inequity is not only experienced but also recognised across genders**.

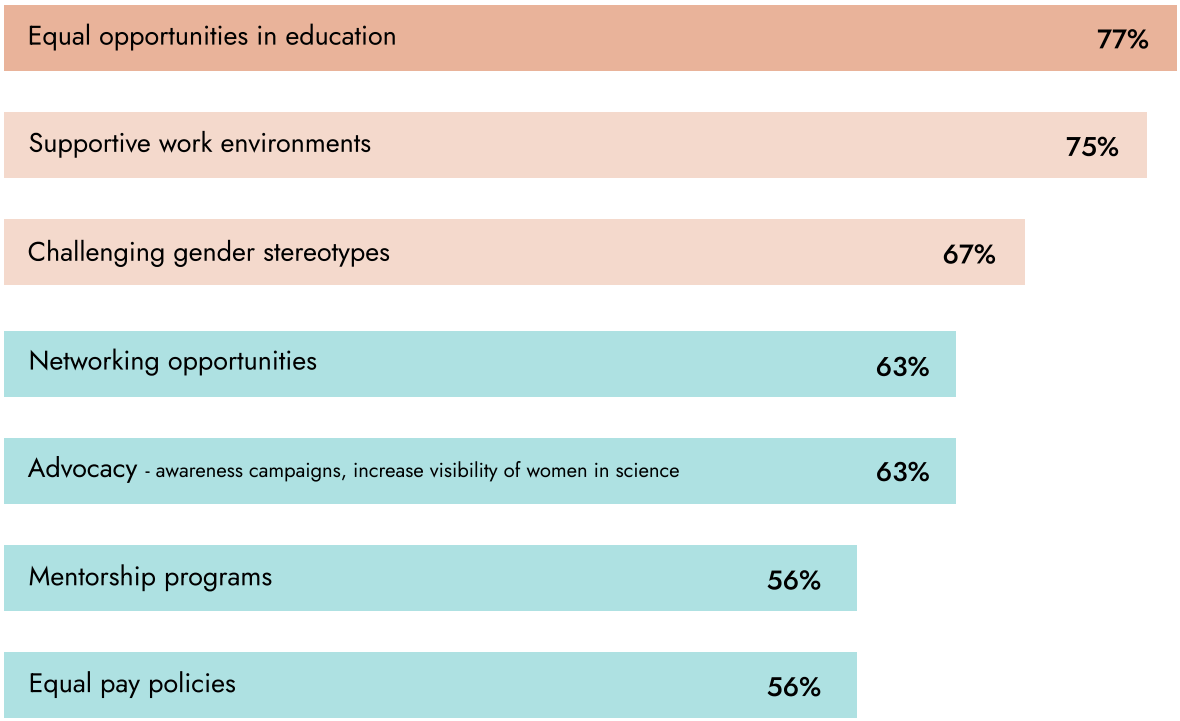


Qualitative responses provided powerful insight into how bias manifests, particularly through:

- Underrepresentation of women in senior and leadership positions
- Unequal recognition of contributions
- Informal practices that undermine formal gender equity policies
- Persistent cultural norms that disadvantage women, especially caregivers

At the same time, a minority of respondents reported not perceiving significant imbalance, highlighting the heterogeneity of experiences across institutions, countries, and disciplines.

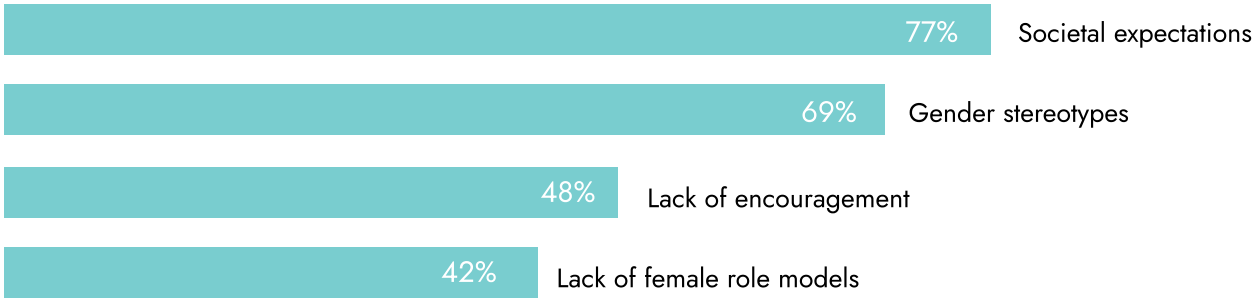
When asked, what could **help bridging the gender gap in science fields**, the majority considered equal opportunities in education and supportive environments key.



Underrepresentation of women in STEM

Respondents identified engineering as the STEM field with the highest underrepresentation of women, followed by mathematics and technology. Science-related fields were perceived as comparatively more balanced.

When asked about the **reasons for underrepresentation**, the most frequently cited factors were societal expectations, gender stereotypes, lack of encouragement and lack of female role models. Only a very small number of respondents attributed underrepresentation to lack of interest, underscoring the importance of social and structural factors rather than individual choice alone.



Workplace culture and institutional commitment

Overall, respondents expressed **moderate to high confidence in their institutions' commitment to gender equality and equity**. Most agreed that their workplaces promote gender equity and are responsive to related concerns, although a non-negligible proportion expressed neutrality or disagreement, particularly regarding clarity on where to report concerns.

Responses also revealed mixed perceptions of representation: some workplaces were perceived as having more women overall but fewer women in senior roles, others reported equal representation, while a small number indicated male dominance.

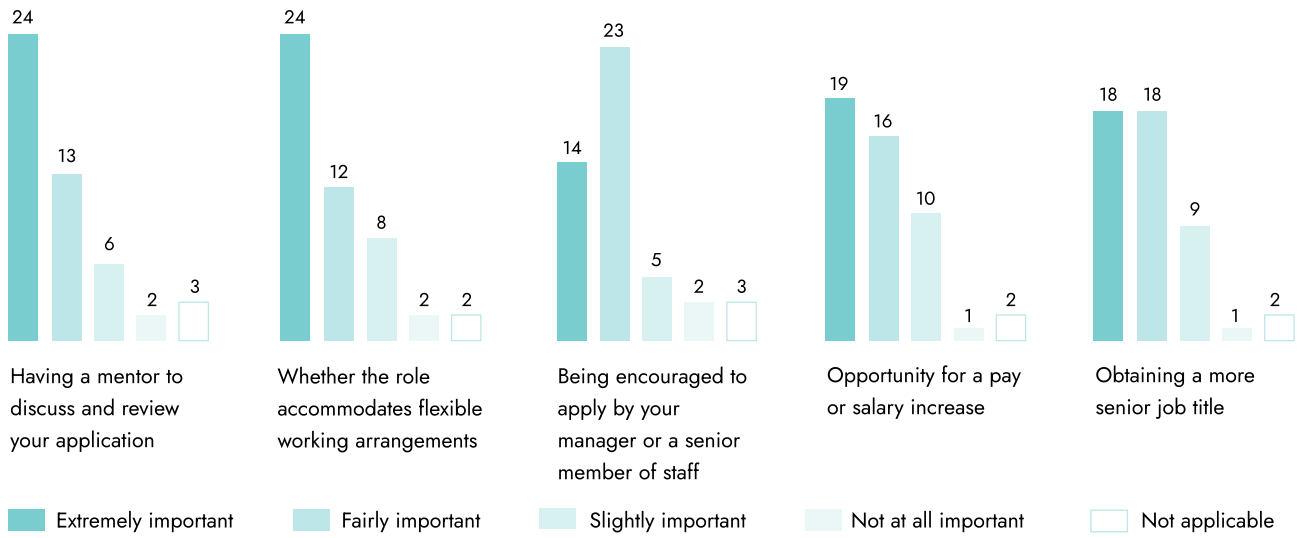
These findings suggest that numerical representation does not always translate into equitable power, recognition, or influence.

Career progression, mentorship, and support

Career advancement emerged as a **critical area of concern**. When considering applying for a promotion, respondents identified the following as especially important:

- Having a mentor to review and discuss application.
- Availability of flexible working arrangements
- Encouragement from managers or senior staff
- Opportunities for salary progression

The strong emphasis on mentorship and flexibility highlights the importance of supportive structures in retaining and advancing women in science.



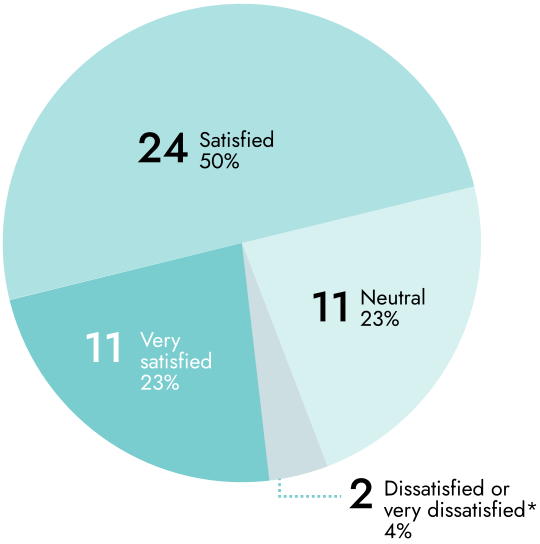
Care responsibilities and employment conditions

The survey revealed that many respondents, particularly women, balance scientific careers with **caregiving responsibilities**: over half reported being parents or legal guardians of children. Despite these responsibilities, most respondents had not taken parental leave in the past five years, suggesting potential barriers (cultural or structural) to taking leave, particularly in scientific careers.

Regarding their **employment conditions**, the vast majority were on full-time contracts, and a substantial proportion were on fixed-term or temporary contracts.

Attitudes toward gender equity initiatives

Support for action was strong and consistent: 92% believed institutions should actively promote science subjects to young girls and 90% agreed that gender diversity improves scientific research. When asked if they felt that gender equity had improved in the scientific community over the past decade, 75% of respondents agreed.



*None of the members who were dissatisfied proposed any suggestions to improve women's equity within ADVANCE-TB.

Most respondents were satisfied with ADVANCE-TB's efforts to promote women's equity. Suggestions for improvement focused on increasing engagement, maintaining women's leadership roles, organising discussions or round tables, and continuing visibility and advocacy activities.

The **likelihood of supporting initiatives** addressing gender challenges in science was very high, with an average score of 4.4 out of 5.

Member statements

This is what our members answered when asked if they would like to share with us their experiences or perceptions of gender bias (or lack thereof):

- "My perception is that, even though the university pushes for gender equity nowadays, there are more men represented in senior academic positions in the university. I believe that to be a consequence of a strong gender bias in previous generations."

- "Because of the unbalance existing across all levels towards men, currently, women are in better position to get a leadership role than men (at least at my institution). Having said this, women may be in the consideration pool, but they will only obtain the leadership role if they deserved, which is very subjective when the committee making the decision is 75% or more men."

- "Despite I work in an institution where women outnumber men, males are overrepresented in hierarchical positions. Male often explicitly or indirectly favour the careers of other men, over women. Gender equity policies and committees exist but it is difficult to change everyday practices. This kind of men are aware of these policies and adhere to them in the surface but discriminatory attitudes persist."

- "I didn't notice any significant imbalance between the two genders at my workplace or in my country."

- "I think it's just life preference that there are (generally) less women in STEM, just like there are less men working as school teachers."

- "Although in my current position I haven't perceived any issues in this matter, during my career as a researcher, I have perceived many biases that jeopardize women and their work. To state a few: women often receive less public/open acknowledgement and are often batched together as a group when presenting ideas or concerns rather than to personally and individually be credited for it/them; in case of men they are more often acknowledged publicly, openly and individually. Also, when in a discussions, I have found that concerns presented by women tend to have less weight or importance. Additionally, when being care givers and future parents, the weight is more often than not put automatically over the women's shoulders and unfortunately this has lead me to witness uncomfortable, unfair and disrespectful comments towards other female colleagues, many behind their backs and disguised as jokes. This is thankfully improving but many patterns are still there."

Conclusions

The survey results show that **ADVANCE-TB members recognise gender inequity in science as a persistent and multifaceted issue.** While progress is perceived - particularly over the past decade - significant challenges remain, especially around work-life balance, leadership representation, mentorship, and cultural norms within institutions.

The **strong willingness of members to support equity-focused initiatives** represents a valuable opportunity for ADVANCE-TB and other research projects and networks to further strengthen their role as advocates for gender equity in science.