



**Professionals
Australia**

RESPONSE TO OPPORTUNITIES SET OUT IN THE STEM DECADAL PLAN

ABOUT PROFESSIONALS AUSTRALIA

Professionals Australia is an organisation registered under the Fair Work Act 2009 representing over 23,000 Professionals from across the STEM professions including engineers, scientists and information technology professionals. Professionals Australia is the only industrial association representing exclusively the industrial and professional interests of these groups.

Professionals Australia members are employed across all sectors of the Australian economy. This includes all tiers of government and in a diverse range of industries throughout the private and public sectors including health science, medical research, biomedical science, ecology, veterinary science, neuroscience, mental health, genetics and genomics, astronomy, biochemistry, mineral processing, environmental science, defence research, synchrotron science, environmental science, immunology and water science, automotive design, roads, rail, water, electricity, information technology, telecommunications, consulting services, surveying, construction, retail pharmacy, mining, oil and gas, collieries and manufacturing.

Professionals Australia has three key objectives in relation to our members working in STEM:

- to provide a strong voice for our members in the STEM professions. This involves considering the kind of support, policies and practices at the enterprise and structural levels that will be necessary to create a sustainable and diverse STEM workforce capable of realising optimal levels of innovation and productivity;
- to play a leading role in encouraging dialogue between industry, government, the higher education sector and the broader community. This means advocating for investment and structural reforms, building the platforms for cooperation and change and initiating and leading projects to foster collaboration; and
- to promote public understanding of the key role STEM professionals play in ensuring Australia's future. This involves influencing public policy and resource allocation decisions and promoting the value of STEM to decision-makers and the wider community. We seek to highlight the critical role STEM professionals play in enabling productivity and innovation, promoting economic prosperity, building critical infrastructure, protecting the environment, improving human welfare and quality of life, preventing, diagnosing and treating human disease and protecting national security. In doing so, we raise the status of the STEM professions and the professionals who work in them.

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FOREWORD

We are proud to present Professionals Australia's response to the Australian Academy of Science and the Australian Academy of Technology and Engineering's Women in STEM Decadal Plan.

Professionals Australia strongly supports a strategic approach in the form of a 10-year roadmap for sustained increases in women's participation and retention in STEM.

We see our gender diversity activities as closely aligned to the opportunities set out in the plan with a particular emphasis on measures at the enterprise and workforce levels.





LEADERSHIP AND COHESION

OPPORTUNITY

Stronger cohesion and leadership across the Australian STEM ecosystem will amplify and strengthen diversity outcomes.

RESPONSE

Professionals Australia’s gender diversity work in STEM is central to the organisation’s core purpose of positively impacting our members’ operating environment and helping deliver proper respect, recognition and reward to STEM professionals.

We aim to lead improvements in gender equity practices across our sphere of influence in the context of the need for a sustainable, diverse STEM workforce.

In our gender and diversity work, we:

- advocate for a national strategy that values STEM professionals’ work and defines their place in shaping the nation’s future;
- ensure diversity and inclusion are promulgated as part of Professionals Australia’s core values;
- assist our members to understand diversity issues and become advocates for change in the STEM professions;
- participate in the national discussion around STEM workforce development including increasing the participation of underrepresented groups including women to ensure future capability;

- talk about gender diversity as more than just a supply/ pipeline issue and that numerical equality on its own is not a solution to gender inequality with the factors that contribute to women’s attrition from the STEM workforce just as critical;
- communicate the critical contribution of a sustainable and diverse STEM workforce to an innovative, engineering, technology and science-driven economy on behalf of our members;
- help shift the belief that gender diversity in the STEM professions is a marginal issue to ensure it is understood as a mainstream economic and workforce development concern and a key economic reform priority for the coming decade;
- highlight the obstacles to merit-based progression and advancement for professional women working in STEM fields/professions and potential solutions to help address women’s long-term and structural disadvantage; and
- create greater awareness of the issues and provide an evidence base for change via our research and surveys work.

Our gender diversity work is integrated within the organisation’s profession-based programs and we are accountable for outcomes with activities reported on at each of our biannual National Assembly meetings by an elected Gender and Diversity Representative.

MEMBER RESOURCES AND ADVOCACY

In support of these objectives, we have a comprehensive range of resources and publications available to members, employers and/or industry more broadly including the following:

REPORTS

- [Professionals Australia Women in the STEM Professions Survey Report](#)
- [Additional hours and unpaid overtime report](#)
- Gender bias in the STEM workforce series
 - ◇ Unconscious bias – what is it and why is it important in the STEM context?
 - ◇ Unconscious gender bias in the STEM workforce
 - ◇ Unconscious and systemic bias in IT

PROFESSION OR INDUSTRY SPECIFIC POSITION PAPERS

- [Professionals Australia Women in Engineering: Realising productivity and innovation through diversity report](#)
- [Tech's Woman Problem: more than just a pipeline issue](#)
- [The under-representation of women in defence: more than just a supply issue](#)

Assistance for employers seeking to address gender equity issues in their workplace

[Stemming the Tide: Addressing the attrition of women from the STEM workforce](#) – a practical guide

Assistance for members in addressing gender issues in the workplace that impact career advancement

- [Career resources for women series](#) (members only)
 - ◇ [Position paper on Career development, guidance and advancement for women](#)
 - ◇ Overcoming Imposter Syndrome
 - ◇ Guide to Maternity Leave and Returning to Work
 - ◇ Salary Negotiation Tips for Women
 - ◇ Discriminatory Interview Questions
 - ◇ Superannuation and Financial Literacy for Women
 - ◇ Navigating Career Obstacles/Leadership for women in STEM
 - ◇ Pregnancy discrimination – a form of systemic bias

ACTION

Professionals Australia will continue to provide a collective forum for scientists to express their views and concerns and ensure their voices are heard across a broad range of policy domains. We will continue building our resources to support this advocacy work, and to advocate for investment and structural reforms, help build the platforms for collaboration and change, lobby for the exercise of relevant policy adjustments and influence resource allocation decisions – in short, to provide the leadership needed to create real change.





EVALUATION

OPPORTUNITY

Establishing a national evaluation framework will guide decision-making and drive investment and effort into measures that work.

RESPONSE

Professionals Australia supports the development of a national evaluation framework to guide decision-making and drive investment and effort into measures that work.

Our view is that the current focus of many initiatives on numerical equality is significantly flawed – it will always only be part of the solution to increasing and sustaining women’s participation in STEM – the vital second part of the equation is addressing the issues that lead to women leaving the STEM workforce. We see the focus on issues in the workplace and addressing the reasons professional women leave the STEM workforce as a critical part of progress toward gender equity in STEM without which all the effort and investment in working towards numerical equality will be wasted.

A national evaluation framework is needed to provide evidence that, as well as increasing the number of women and girls undertaking STEM education, a focus on serious investment in retention efforts at the enterprise/workplace level is needed. Because of the high attrition rate for women working in STEM, increasing the supply of STEM-qualified women is not enough to solve this problem.

A national framework can play a role in showing which attraction and retention measures are most effective across different points of the ‘leaky pipeline’.

ACTION

We will continue our strong focus on the retention of women in the STEM professions in our advocacy and research work in an effort to highlight the need for measures to address the factors that contribute to their attrition.



CULTURE – INCLUSIVE AND RESPECTFUL WORKPLACES

OPPORTUNITY

A significant cultural shift in workplaces is necessary to create gender equity for women in STEM. A culture that is inclusive and respectful, challenges traditional stereotypes, is free of discrimination and bias, enables flexibility and accommodates career interruptions and changes will maximise women's participation in the workforce.

RESPONSE

SEEING SOLUTIONS TO GENDER INEQUITY IN STEM IN SYSTEMIC AND STRUCTURAL TERMS

Professionals Australia holds the view that for the decadal plan to provide a strong framework for creating a diverse and sustainable workforce that contributes to productivity improvement and innovative capability, the responses to it must move beyond change at the cultural level to structural and systemic change.

In our view, systemic change at the enterprise level and structural change at the workforce level are critical to bringing about sustained increases in women's participation and retention in STEM and enabling cultural change.

Rather than a shift in workplace culture being sufficient, we see a need to address gender equity issues at the workplace level more fundamentally; we need to address the full range of factors that contribute to women leaving the workplace and/or the profession to properly address gender inequity in the workplace and in the STEM workforce.

SYSTEMIC CHANGE AT THE WORKPLACE LEVEL

Change at the workplace level involves evaluating the complex range of systems and workplace practices that can lead to disadvantage for women.

In our view, ensuring workplace culture does not over-ride the impetus for systemic change at the workplace level necessarily involves embedding change into key performance indicators and management accountabilities. Without this, workplace practices and systems can enforce historic patterns of women's workforce participation and get in the way of making equitable, family-friendly and safe STEM workplaces a reality.



STRUCTURAL CHANGE - WORKFORCE DEVELOPMENT

We see a STEM workforce development plan to underpin the 10-year roadmap for increasing women's participation and retention in STEM as crucial.

What should STEM workforce development as a framework for change at the workplace level look like? How do you build depth, specialisation, mobility, community safety, engagement, agility, competent leadership, long-term capacity, capability and diversity into the STEM workforce?

In our advocacy work, we talk about the following areas as critical to STEM workforce development over the coming decade:

1. attract, develop and retain the next generation of STEM professionals;
2. recognise the value of STEM skills and qualifications beyond the STEM workforce;
3. rebuild STEM capability within government and government-funded agencies;
4. address insecure employment;
5. maintain STEM capability at leadership and management levels;
6. maintain high professional standards and regulation as required;
7. address deprofessionalisation;
8. align recognition and reward with workforce skills needs;
9. support the provision of career pathways through skill acquisition and mechanisms to ensure the workforce develops properly-trained specialised staff;
10. improve management capability and gender diversity in management and leadership roles;
11. address gendered occupational segregation;
12. address the factors that contribute to the attrition of under-represented groups including women;
13. address the gap between policy and practice in workplaces; and
14. utilise the industrial relations system to effect broader change.

ACTION

Professionals Australia will continue to advocate for change at the enterprise level and for a workforce development plan to address the issues that underpin gender inequity in STEM. In turn this will enable workplace cultures that are inclusive and respectful, challenge traditional stereotypes, are free of discrimination and bias enable flexibility and accommodate career interruptions.



VISIBILITY

OPPORTUNITY

Seeing women in diverse STEM careers, and equally represented in the media, in public events, and in other forums like boardrooms and classrooms will provide role models for girls and women and inspire a nation.

RESPONSE

The latest Professionals Australia Women in STEM Survey Report found that:

- 60.6 per cent said there were fewer female than male STEM professionals in senior management roles in their workplace.
- 56.0 per cent of respondents said that the lack of role models had significantly or moderately impeded their career advancement.
- 57.6 per cent said the lack of women in senior roles had negatively impacted their progress.
- 55.7 per cent said lack of access to senior roles for women had detrimentally impeded their career advancement.

The survey found the factors that a range of barriers and obstacles contributed to lack of career advancement for women in STEM including:

- bias in career building activities;
- the career penalty attached to working part-time;
- career interruption and lack of proper return to work measures;
- workplace culture and issues around 'rocking the boat';
- unconscious bias in decision-making and recruitment;
- high levels of sexual harassment; and
- gender stereotypes that undermine respect and recognition.

The issue of visibility is underpinned by the under-representation of women in senior, management and leadership roles.

We are committed to helping ensure that organisations across Australia can effectively attract, develop and retain a diversity of skilled professional scientists across all levels of seniority, removing the barriers and obstacles to women advancing into senior roles and increasing the number of female role models at senior levels so that we are fully leveraging our potential talent base.

ACTION

We will continue to advocate for measures to address all the factors contributing to the lack of female STEM professionals advancing to senior, management and leadership levels.



EDUCATION

OPPORTUNITY

Strengthening the education system to support teaching and learning on a national scale will enable and encourage all girls and women at all levels to study STEM courses and equip them with the skills and knowledge to participate in diverse STEM careers.

RESPONSE

MORE THAN JUST A PIPELINE ISSUE – LOOKING BEYOND SUPPLY

While ensuring increased STEM enrolments and a strong supply of work-ready STEM graduates from universities is critical, we see the issue of removing the obstacles, barriers and biases which create disadvantage and operate as disincentives for women to remain in the STEM workforce as equally important.

The focus of Professionals Australia’s work in relation to increasing women’s participation in the STEM professions is on addressing issues that impact the retention of women professionals in STEM at the level of the workplace and the workforce more broadly.

The investment of resources in initiatives to foster the participation of girls and women in STEM courses and education is inevitably compromised when those same STEM professionals leave the workforce later in their careers due to a failure to address systemic barriers and obstacles to gender equity in the workplace - a focus on the so-called leaky pipeline at the enterprise level is a must to support gender-based STEM education initiatives.

If we only consider supply without looking at the reasons for attrition of women from the STEM workforce, any chance of closing the gender pay gap, providing genuine equal opportunity in the workplace and addressing women’s differential retirement savings will be lost and we’ll be looking back in another ten years still asking why nothing has changed.

ACTION

We will continue to advocate for measures to increase women’s participation and retention in the STEM professions at the workplace and workforce levels to support gender-based STEM education initiatives.



INDUSTRY ACTION

OPPORTUNITY

Establishing a national framework that guides and provides tools to address gender equity amongst SMEs will impact the vast majority of businesses not reached by existing programs.

RESPONSE

As a union and professional association, we are part of an industrial relations framework that balances the rights and obligations of workers and industry.

Pursuit of gender equity in industry including the introduction of flexible work practices, ensuring equal pay, providing equal access to professional development and other career advancement opportunities, accommodation of career breaks and addressing bias in decision-making and recruitment need to be approached with an understanding that there is no one size fits all solution, that change management must be planned and tailored to the organisation and that potential resource constraints mean greater levels of support may be needed in small to medium enterprises.

Professionals Australia provides support to employees in the form of:

- Advice, information and representation on employees' rights to access conditions set out in the National Employment Standards including parental leave, the right to request part-time work, domestic violence leave, etc.;
- advice on career breaks and return to work practices to help accommodate career interruptions;
- advice and information on family responsibilities discrimination;
- advice and information on sexual harassment in the workplace;

and more broadly by

- utilising the enterprise bargaining process to effect change in relation to gender diversity, for example, by bargaining for the inclusion of additional paid parental leave and paid domestic violence leave in enterprise agreements;
- conducting work value cases in female-dominated industries such as the one recently run on behalf of our pharmacy members seeking significant increases in award rates of pay and the introduction of a new allowance for pharmacists with the Accredited Pharmacist qualification; and
- running campaigns on issues such as long working hours that include consideration of the issue through a gender lens such as the impact of a long working hours culture on women professionals

and to employers in the form of

- practical advice to employers on ways to address structural gender inequity, for example our [Stemming the Tide](#) publication which offers an overview of ways to address the attrition of women in STEM at the enterprise level

and at the industry level by

- ensuring our advocacy and industry -based campaigning in STEM-related areas include gender diversity as a central pillar of workforce development; and
- collaborating with industry bodies such as Projects Victoria to develop and promulgate Best Practice Equity Guides for industry

and at the legislative level by way of the federal industrial relations system which has historically provided a fair and effective mechanism for progressing gender equity at the enterprise level that balances the needs of workers and industry.

Enterprise bargaining and the National Employment Standards have provided access to core working conditions such as flexible work arrangements, carer's leave, paid parental leave, access to employer-provided child care and a range of other conditions that support progress towards equal opportunity and balancing work and life responsibilities.

Test cases run by the Australian Council of Trade Union (ACTU) on behalf of affiliate unions have resulted in significant progress for female workers in the Australian workforce including STEM professionals.

Over the next decade the industrial relations and enterprise bargaining system could potentially be used to provide a forum to:

- review the historical under-valuation of work in a range of female-dominated industries;
- support mechanisms that allow for more equitable sharing of caregiving responsibilities;
- support measures to enhance women's access to superannuation provisions to improve retirement savings over the longer term;
- enhance paid parental leave provisions ensuring men can take time off work to care for a newborn child as well as women;
- provide a right to family-friendly working hours; and
- provide for paid domestic violence leave.

ACTION

We will continue to safeguard the rights of STEM professionals in the workplace and advance their interests by utilising the nation's industrial relations framework to address barriers to their full and equal participation in the workforce.





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