

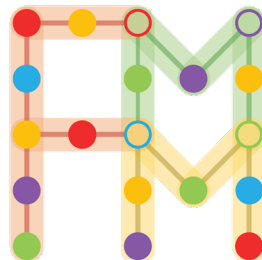


Shaping women's careers in male dominated workplaces: tried and tested solutions

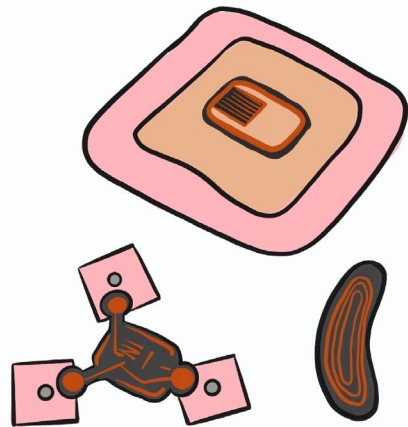
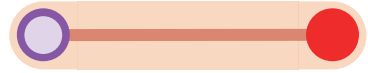
Professor Madhu Bhaskaran FTSE

Co-Leader, Functional Materials and Microsystems Research Group
RMIT University, Melbourne, Australia

Co-Chair, Women in STEMM Australia



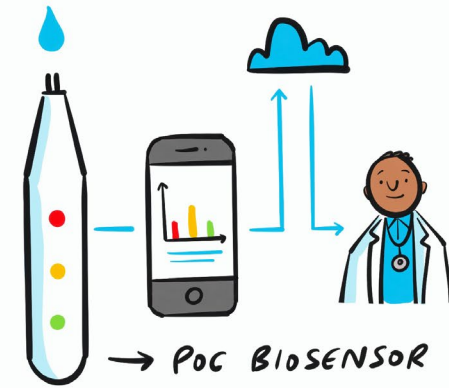
Translational Research - MedTech



WEARABLES

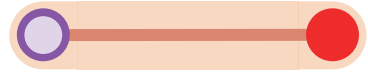


NEARABLES



POINT OF CARE
DIAGNOSTICS

My DEI focussed roles



- Established RMIT Women Researchers' Network – 2013
- Women in STEMM Australia
 - Board of Directors – 2014 onwards
- Co-Chair – 2021-current
- Women in STEM Decadal Plan
 - Expert Working Group – 2017-2019
- ARC Centre of Excellence for Transformative Meta-Optical Systems (TMOS)
 - Inclusion, Diversity, Equity, and Access (IDEA) Director – 2020-current
- STEM Sisters
 - Advisory Board – 2022-current
- Victoria's Gender Equality Strategy
 - Equal State Reference Group – 2024-current



RMIT Women Researcher Network

RMIT Women Researcher Network



Our journey and objectives

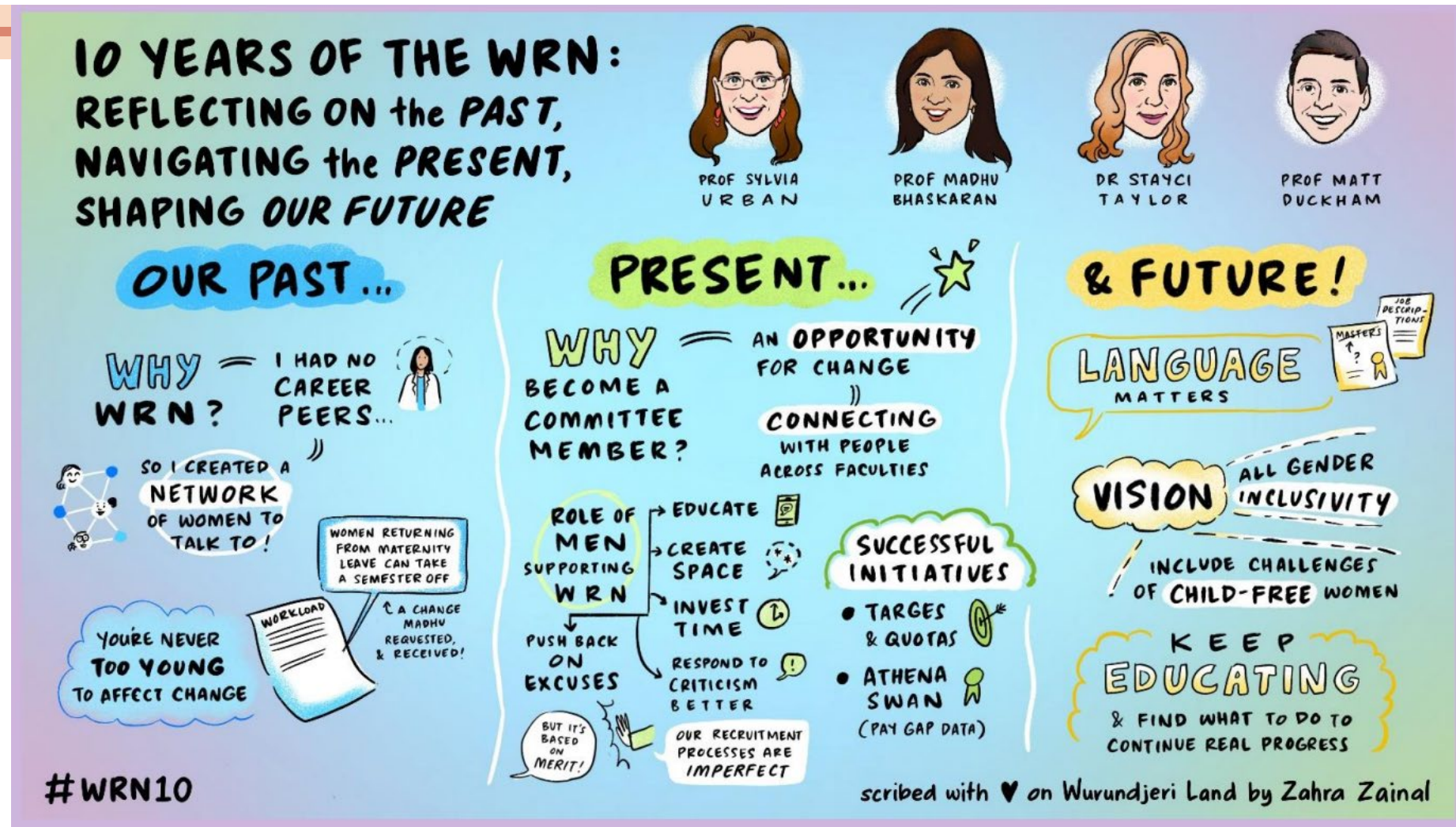
The Women Researcher Network (WRN) was initiated in 2013 by Professor Madhu Bhaskaran, Professor Nicky Eshtiaghi and Professor Suelynn Choy as a Science, Engineering and Health (SEH) initiative, endorsed by the then DVCR Professor Daine Alcorn. From 2014 the WRN steering committee was established.

All members of the WRN steering committees over the years are acknowledged in advancing the Women Researchers' Network (WRN) which has grown from being a STEM based to a university wide initiative. The College of Design and Social Context and the College of Business joined the WRN committee in 2015 and 2016 respectively, with RMIT Vietnam represented in the steering committee from 2023. HDR and professional staff are also represented in the committee membership.

Particularly during 2020 and beyond, faced with the challenges presented by the COVID19 pandemic, the hard work of the WRN steering committees is recognised and acknowledged in being able to continue the work of founding and subsequent members across all years to continue to:

- advocate for change in gender equity policy, practice, and behaviour
- foster a flourishing and supportive environment for women researchers
- connect the University to a wider community of practice in gender equity.

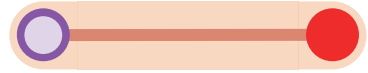
You are never too young or early career to effect change!



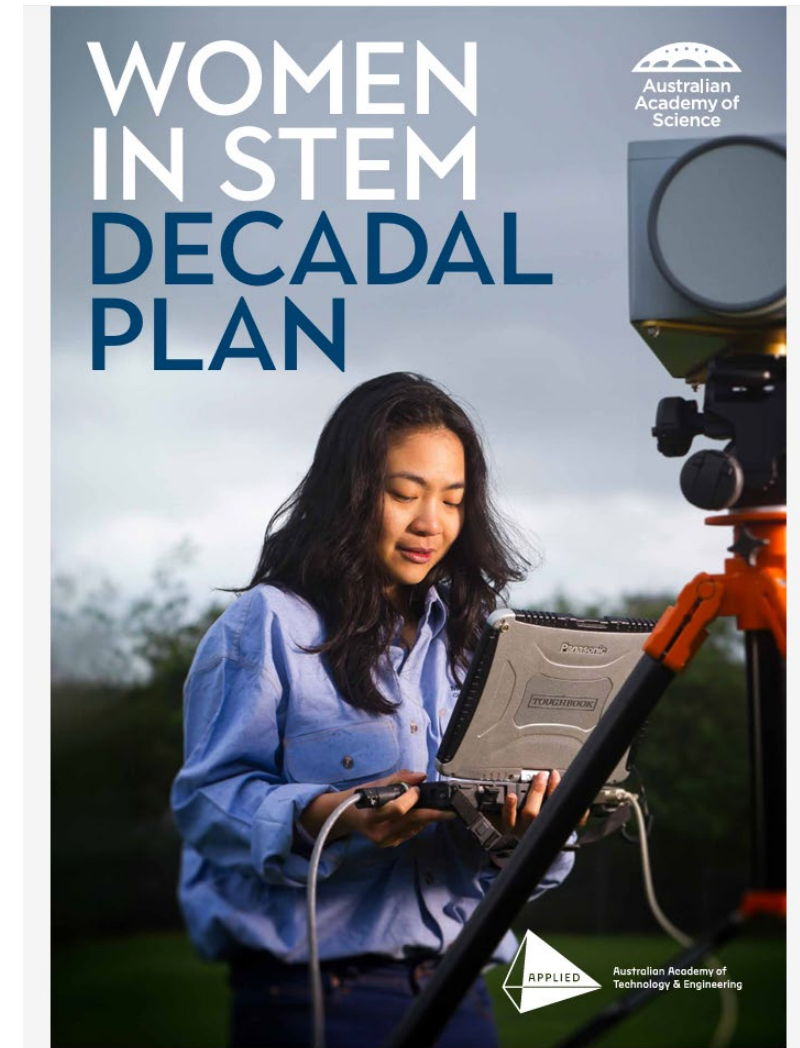


Women in STEM Decadal Plan

Women in STEM Decadal Plan



- Part of Expert Working Group
- Extensive community consultations
- Key Findings around difference between sectors – influence of SAGE for academia
- Multi-pronged approach needed
- Intersectionality also flagged



SIX OPPORTUNITIES

1 Leadership and cohesion

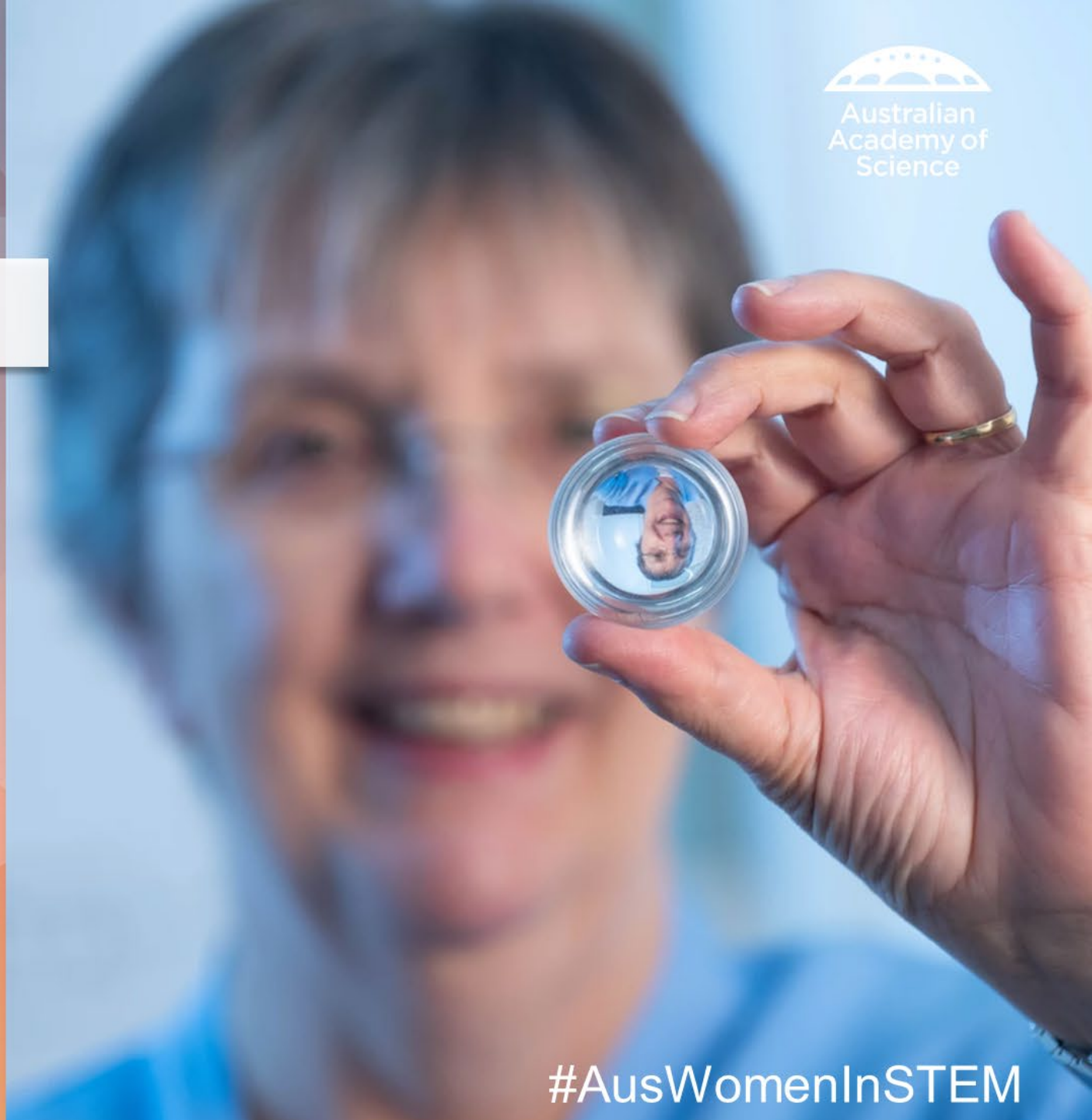
2 Evaluation

3 Workplace culture

4 Visibility

5 Education

6 Industry action

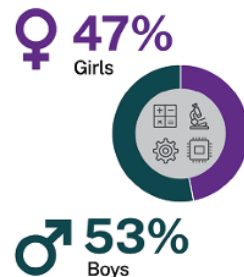


STEM Equity Monitor

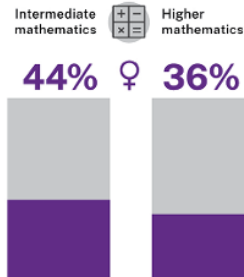
2025 Gender equity in STEM insights

2023 enrolments in Year 12 subjects

Proportion of enrolments in STEM subjects, by gender



Proportion of enrolments in mathematics subjects from girls



STEM women at university

2023 undergraduate enrolments and completions



2023 undergraduate earnings

Women earned less than men for 3 of the 4 STEM fields following undergraduate study



2023 postgraduate earnings

Women earned less than men for 3 of the 4 STEM fields



2023 women researchers



2023 women at level E in STEM fields



Schooling

Undergraduate/vocational education and training

Post education

Entry level career

Academia

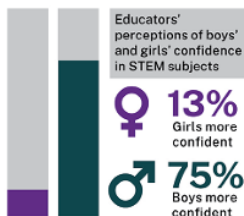
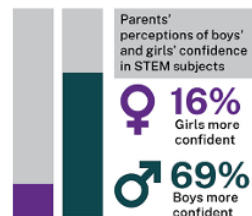
Professor

STEM workforce

Leadership

2024–25 results – Parents, teachers & career advisers

Importance of STEM skills for getting a good job



STEM women in VET

2023 VET STEM enrolments and completions



2024 VET STEM graduate earnings

Women earned less than men after graduating from all 4 STEM fields



2024 Women in leadership positions

Representation of women at senior management level in STEM-qualified industries

27%↑

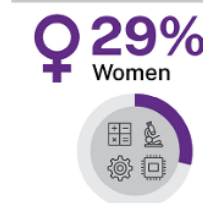
Representation of women at CEO level in STEM-qualified industries

12%↑

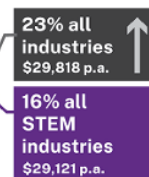


STEM-qualified industries

2024 STEM-qualified industry employees



2024 gender pay gap



2024 STEM-qualified occupations

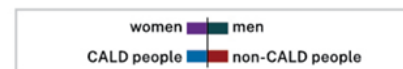


↑ Arrows next to percentages indicate a change since last report. This may not be a statistically significant change and should be treated with caution.

STEM Equity Monitor

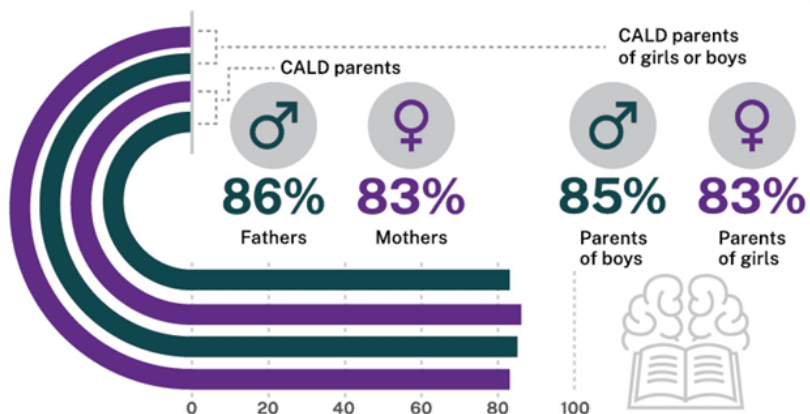
2025 Diversity in STEM insights – CALD people

People who are culturally and linguistically diverse



Schooling

2024–25 parents, teachers and career advisers survey – proportion of people who agreed STEM skills were important for future careers

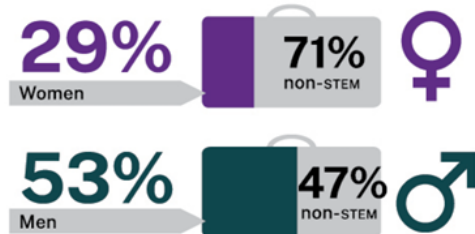


Graduate outcomes

Median STEM graduate income in the year after graduation



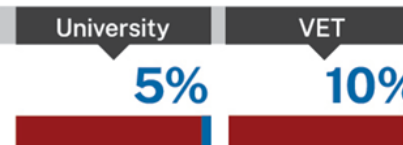
Proportion of 2011 university STEM graduates working in STEM occupations 10 years after graduation (2020–21)



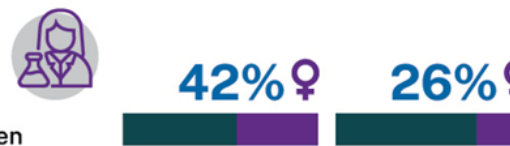
Higher education

STEM enrolments, 2023

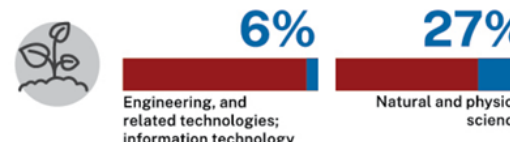
Proportion of total STEM enrolments from CALD people



Among CALD people, proportion of STEM enrolments from women

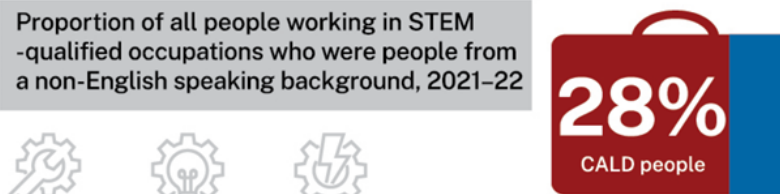


STEM fields with highest proportion of enrolments from CALD people

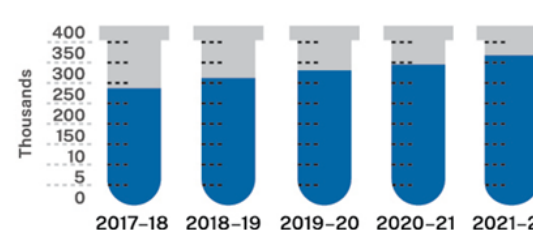


STEM workforce

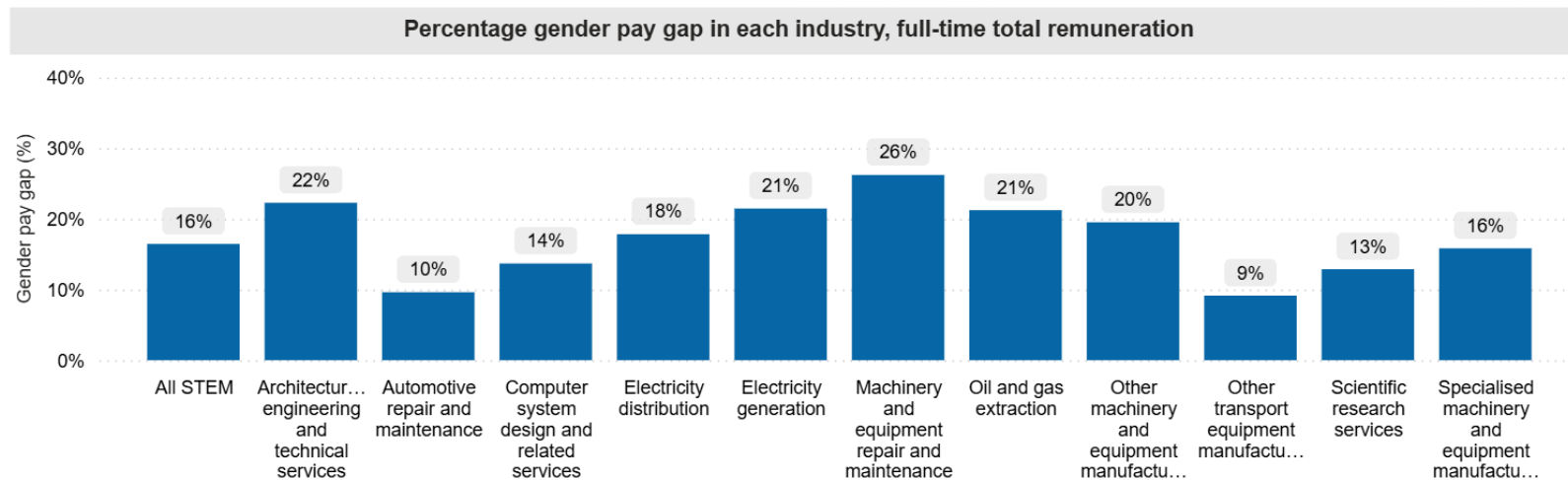
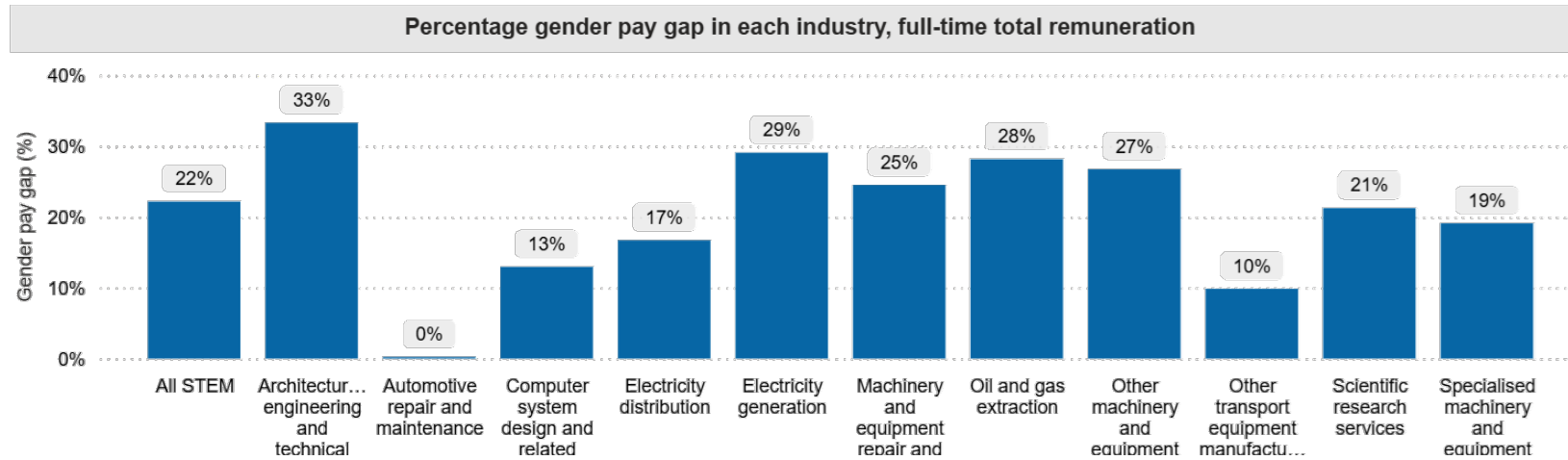
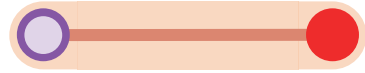
Proportion of all people working in STEM-qualified occupations who were people from a non-English speaking background, 2021–22



Number of people from a non-English speaking background in STEM occupations, 2017–18 to 2021–22



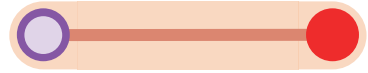
STEM Equity Monitor – Paygap - 2016 and 2024





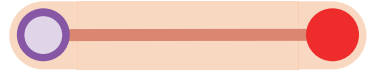
ARC Centre of Excellence TMOS

About TMOS



- Australian Research Council Centre of Excellence – funded from 2020-2027
- Focus on creating next generation miniaturised optical devices
- 5 node universities, 15 chief investigators
 - Today hosts around 120 members – including postdoctoral researchers, PhD candidates, associate investigators, partner investigators professional staff,
- 7 years - Broader focus beyond research outcomes
 - Micro-environment for new initiatives

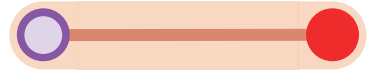
IDEA Focus



- IDEA – Inclusion, Diversity, Equity, and Access
- 0.6 FTE Professional Staff with IDEA focus
- Clear KPIs on % of women as well as IDEA focussed
- Physics + Engineering Centre
 - Need for targeted and continuous efforts
 - But realistic goals...

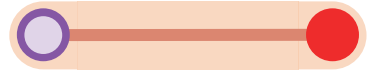


Women-only Recruitment Rounds



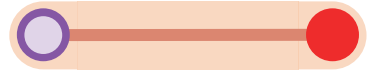
- First round of postdoc recruitment
- 13/15 advertised as women-only positions across 4 nodes
- 311 applicants – 5 recruited
 - +2 direct appointments which took us to 37.5% women (national average of 17%)
- Challenges
 - Node to node and state to state variations
 - Pandemic and border closures
 - Some pushback

Women-only Recruitment Rounds



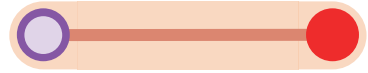
- Recruitment Framework
- Bias training for all Chief investigators
- Balanced panels, cross node representation to counter check bias
- Wide advertising with videos discussing research environment to prospective applicants
- No gendered language
- Longlist based on skills – not track record
- Records maintained at each recruitment stage

Achievement relative to Opportunity (ArtO) - RMIT



- Incorporated in RMIT promotion usually
- Piloted for recruitment in 2020 for ARC CoE TMOS
- Explicit opportunity to explain about professional and personal circumstances which affect your career
- RMIT Recruitment round for 2 postdoc positions – women only
 - 147 applications – 25 male!
 - 40 activated ArtO
 - Career interruptions/migration/industry employment
 - Cultural stigma/psychological safety
- SAGE Cygnet Award

Career Reconnect Fellowships



- Career breaks impact
- Sector change, parental leave, migration
- Short-term, part-time option to re-enter workforce and boost CV
- Awarded to 3 women within my research group
- *Outcomes*

TMOS IDEA Principles



- Women First Recruitment
- Recruitment Documents
 - Also in the form of a flowchart – neurodiversity
- Transparency in process, offer longer contracts
- Decadal Plan Champion
- Culture Surveys, Exit interviews
- Education and training – Symmetra, Talent LMS



ARC CoE TMOS – Information Sharing



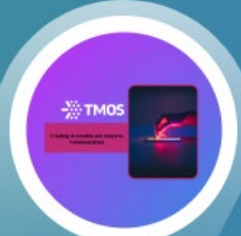
Acknowledgement of Country

This document provides an overview on how to personalise an Acknowledgement of Country.

The graphic shows a circular inset with a purple background and a white border. Inside the circle is a small image of a map of Australia with the TMOS logo and the text "Acknowledgement of Country".

Carer Scholarship Policy

This policy outlines our carer scholarship initiative which provides all members the option to apply for financial assistance to cover the costs of care when participating in professional development activities

The graphic shows a circular inset with a purple background and a white border. Inside the circle is a small image of a person's profile with the TMOS logo and the text "Carer Scholarship Policy".

Accessible and Inclusive Communication

This checklist is for our Centre members to use as a guide when they're creating and delivering presentations as well as writing emails.

The graphic shows a circular inset with a purple background and a white border. Inside the circle is a small image of a smartphone screen with the TMOS logo and the text "Accessible and Inclusive Communication".

Participation and Inclusion Policy

This policy provides expectations and guidance to our members on the advised minimum standards to ensure we're maintaining an environment that is inclusive and allows everyone to participate.

The graphic shows a circular inset with a purple background and a white border. Inside the circle is a small image of a person wearing a headlamp with the TMOS logo and the text "Participation and Inclusion Policy".

Safe and Inclusive Events

This checklist is for our Centre members to use as a guide on what to think about to ensure the event or conference they're creating considers the diversity of the potential attendees.

The graphic shows a circular inset with a purple background and a white border. Inside the circle is a small image of a person sitting at a desk with the TMOS logo and the text "Safe and Inclusive Events".

Women in STEMM Australia

Email – contact@womeninstemm.au

Web – womeninstemm.au



Purpose and Brief History



Our Purpose

To connect, empower and advocate for STEMM (science, technology, engineering, mathematics, medicine) women and girls to have equality in the Australian workplace.

About Us

We are an organisation whose primary engagement platform is through social media – this includes LinkedIn and Twitter with a diverse and inclusive network of over 40,000 STEMM professionals in academia, industry, education, business and government.

This includes all women in STEMM (and those who enable STEMM) regardless of their discipline and profession. We raise the profile of women in STEMM, provide role models by increasing the visibility of women in STEMM, expand their professional network, and advocate on their behalf at various levels.

Brief History

Founded in 2014, Women in STEMM Australia is a non-profit organisation that has grown into a nationally recognised association for women in science, technology, engineering, mathematics and medicine (STEMM).

A Decade of Advocacy



Menopause/Perimenopause

Women in STEMM survey

Submission to the Government Inquiry into perimenopause and menopause and its impact on workforce participation

It is estimated that

By 2030
25% of the female population will be menopausal

Awareness

81% reported low to no awareness/discussion of symptoms and how to get through it in their workplace



Recommendations

- Empathy
- Open discussions
- Flexible work arrangements
- Workplace education & policies
- More training for doctors
- Mental health checks/support
- Stronger government policies

Symptoms



Symptoms include:

Trouble sleeping Brain fog Fatigue Hot flushes
Loss of confidence Anxiety
Mood swings Night sweats Stress Depression Weight gain
Severe pain & cramping Unreliable memory Hair loss
Irregular & heavy periods Bladder control issues
Aches & pains Unexpected heavy bleeding
Cognitive challenges Migraines Overwhelming feelings
Physical discomfort Triggered neurological symptoms Aging appearance

Online survey responses

182 across **96**
respondents organisations

Respondent age

78% **20%**
≥45yrs 25-44yrs

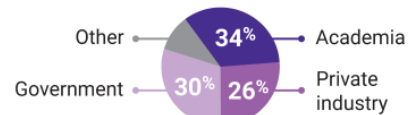
Respondents by state/territory



Respondents by area

71% **25%** **3%**
Metro Regional Rural/remote

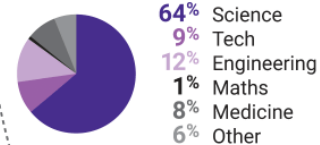
Respondents by sector



Respondent qualifications

94% Bachelor degree or higher
 64% MBA and/or PhD

Respondent specialties



Many of our respondents are in senior roles such as:

Director, Managing Director, Professor, Senior Scientist, Principal, Senior Manager Technology, Superintendent, Pro-Vice Chancellor, General Manager, Head of Sales, Senior data analyst, ARC Laureate Fellow, Head of Department, Chief Operating Officer, Surgical Registrar, Group Leader, Programming Manager, Project Director, and Transformation Head.

STEMM on Boards

STEMM on Boards

Analysis of STEMM-qualified board members in ASX 100 companies*



749 Board Members on the ASX 100

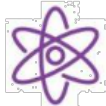


37% women (275 total)
63% men (474 total)

Board Directors have degrees in these STEMM areas:

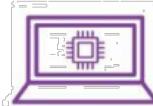
Chemistry | Medicine | Geology | Telecommunications | Mathematics
Applied statistics | Solid state physics | Life sciences | Physiology | Nuclear physics
Petroleum geophysics | Extractive metallurgy | Zoology | Psychology
Aviation | Nursing | Actuarial | Biochemistry | Computer science | Pharmacology
Engineering: chemical / mining / ocean / mechanical / civil / materials
electromechanical / computer / environmental / electrical and electronic

Number of STEMM Directors on Boards



Science

39 women
58 men



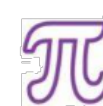
Technology

7 women
14 men



Engineering

29 women
88 men



Mathematics

7 women
6 men



Medicine

6 women
7 men

ASX 100 Directors (749)



32% STEMM qualified
10% Women in STEMM

Chairs of the Board



21% STEMM qualified
0% Women in STEMM

Managing Directors / CEOs



33% STEMM qualified
3% Women in STEMM

% STEMM Directors on Boards by ASX Industry Sector

The percentage of STEMM Directors on Boards varies by industry sector from a minimum of 0% to a maximum of 86%.

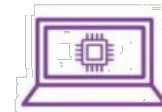


STEMM + Business Qualifications

17% of Directors
11% of Chairs
17% of MDs/CEOs



IT qualified Directors



3% ASX 100 Directors
1% Board Chairs
1% MDs/CEOs

Doctorate qualifications



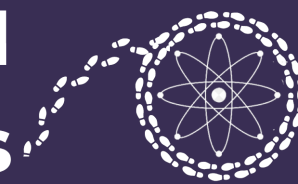
5% of Board Directors have a PhD
(39 total)

© 2025 Women in STEMM Australia
womeninstemm.au
*Source: marketindex.com.au/asx100 (excl-S&P) on:
7 August 2025, and ASX 100 company websites.



STEMM Strolls

STEMM
Strolls



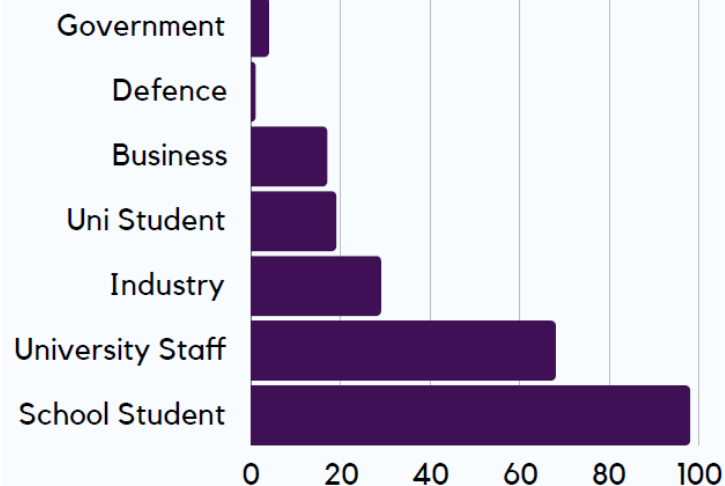
Aiming to bring STEMM students and professionals together in regional areas. Local get togethers to find new networks, find mentors, and support groups especially in regional areas where it is hard to do so.

Wollongong, Ballarat, Townsville, Bendigo & Sunshine Coast

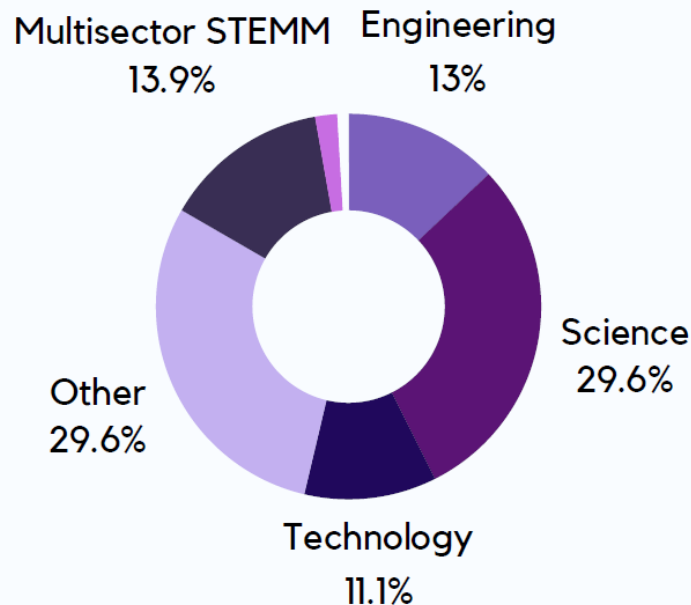
Registered: 240

Attendees: 286 (119% attendance)

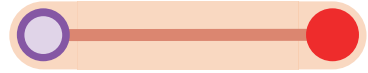
Employment Area



STEMM Sector Focus

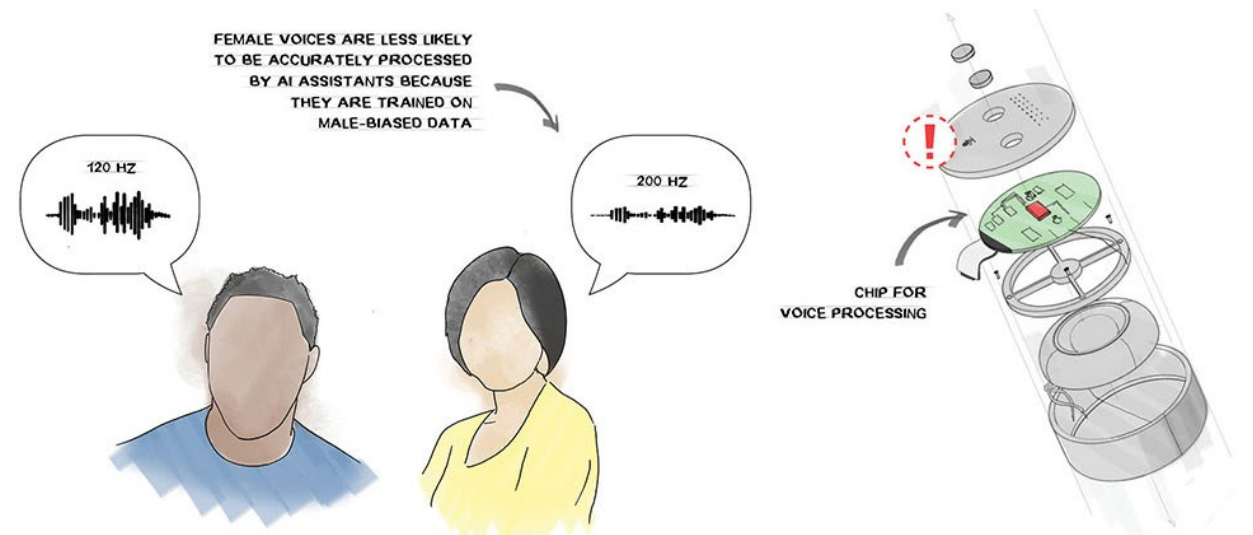
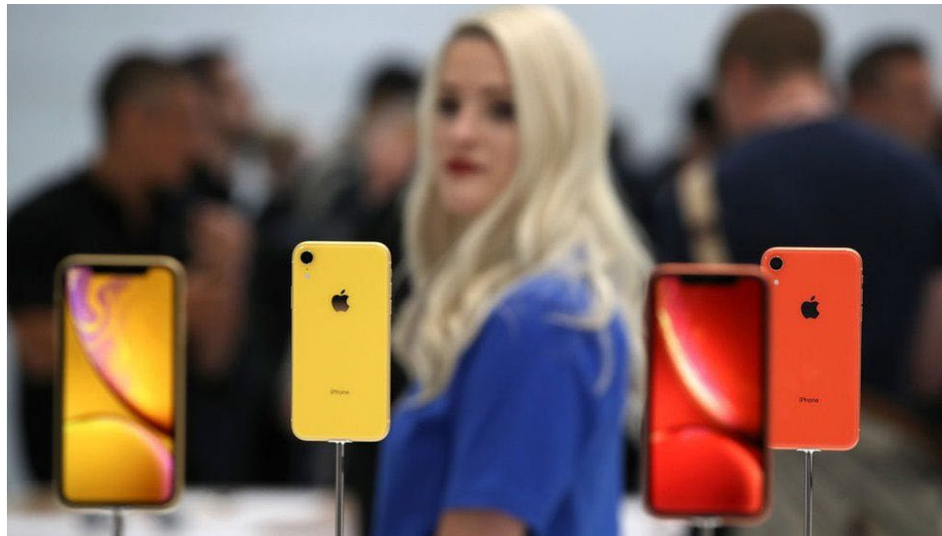
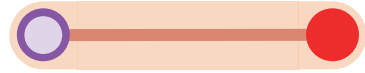


Influences on Technology



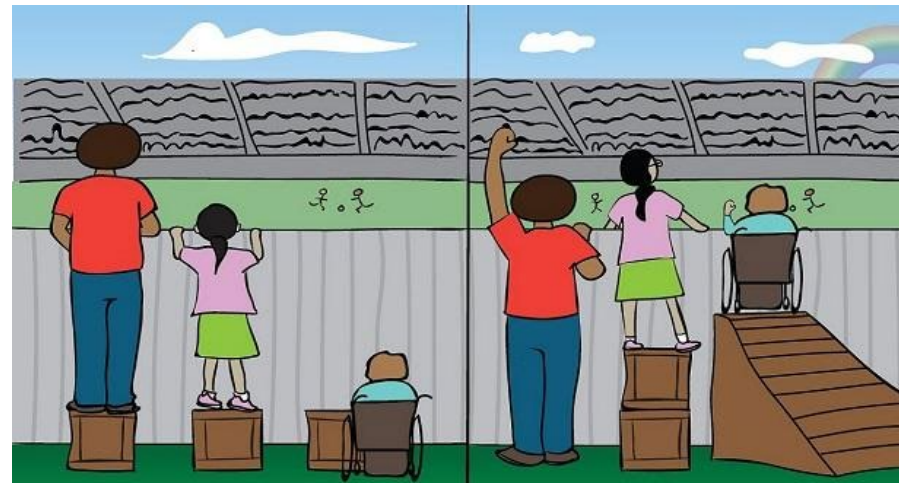
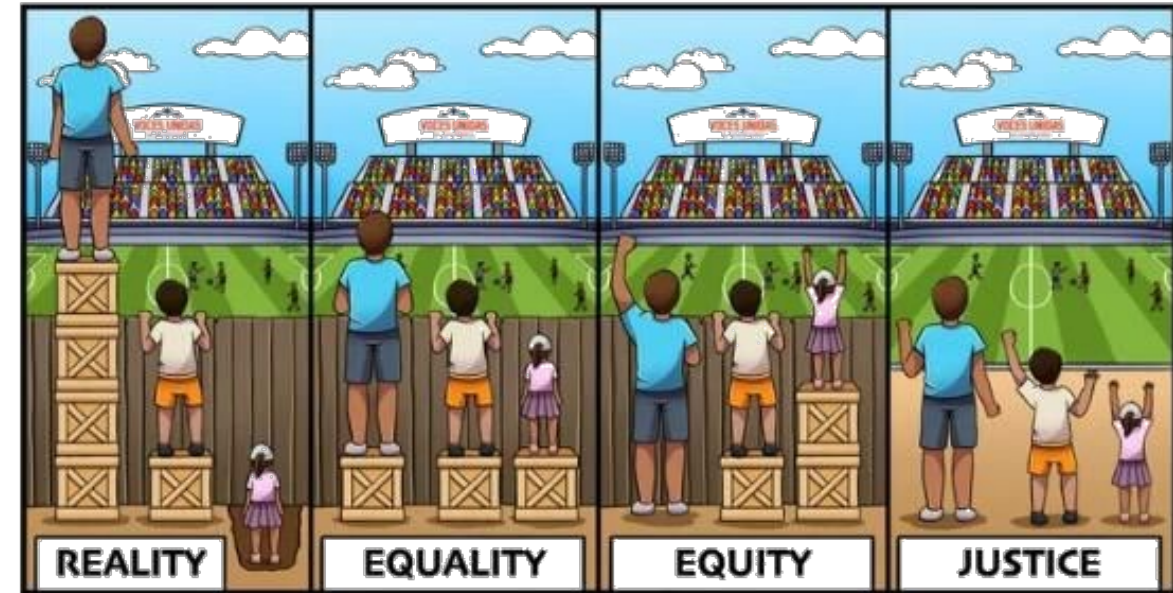
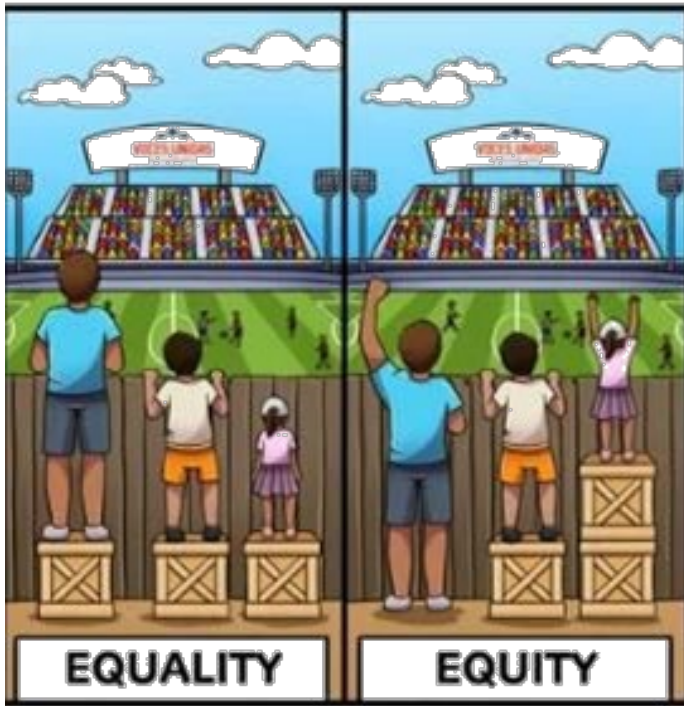
<https://www.tlnt.com/4-strategies-for-increasing-diversity-in-tech-and-everywhere-else-too/>

Technology for Diverse Audiences



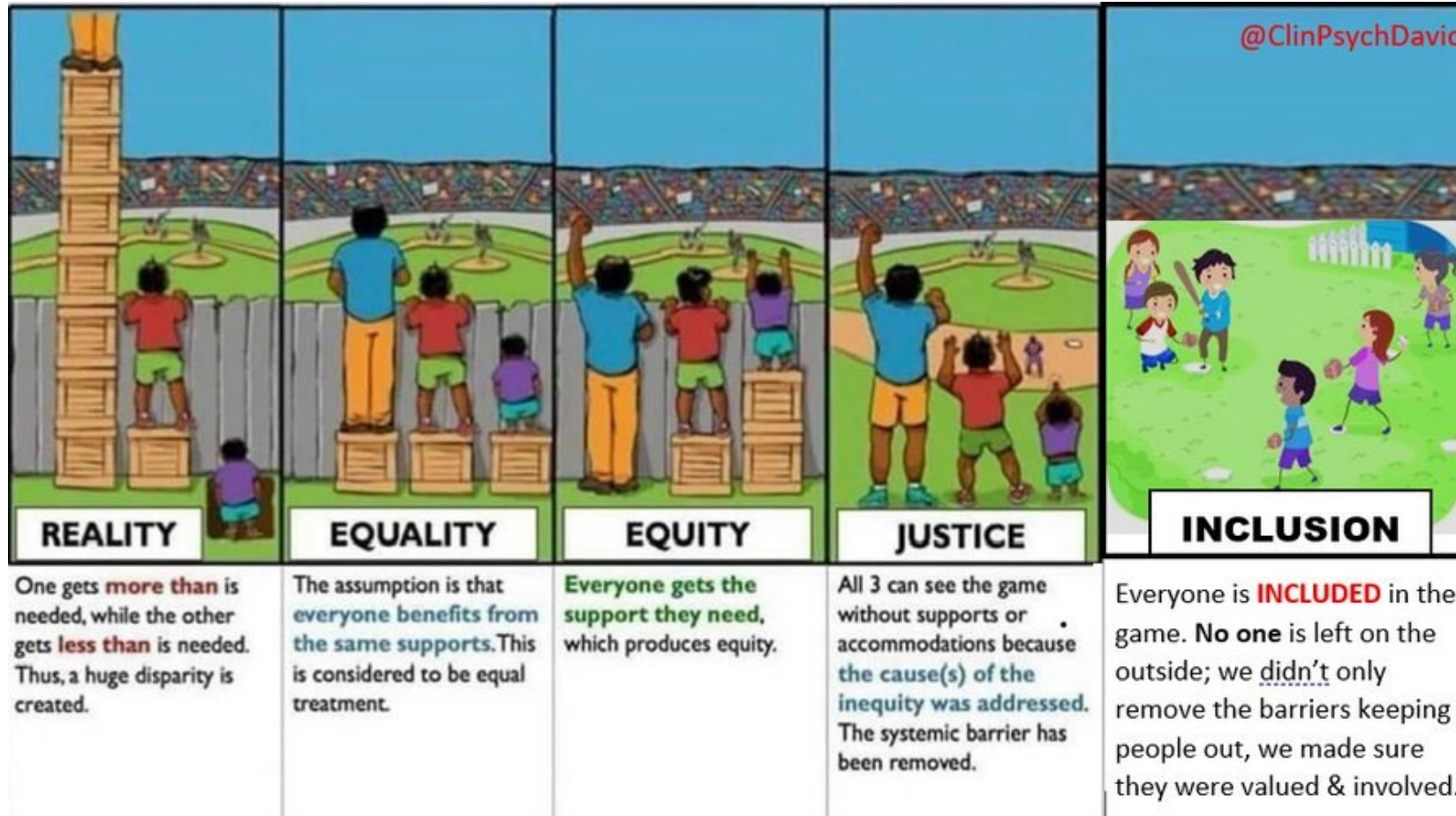
<https://www.bbc.com/news/world-us-canada-47725946>; <https://www.usatoday.com/story/money/2020/05/21/crayola-launches-different-skin-tone-crayons/5240502002/>; <https://www.jssk.co.uk/stabilo-sharpeners-2>; https://www.evoke.org/articles/july-2019/data-driven/deep_dives/the-dangers-of-gender-bias-in-design

Equality vs Equity vs Justice

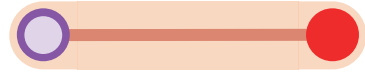


<https://theinclusionsolution.me/staywoke-live-inclusively-equity-vs-equality/>

And inclusion...



Connect With Me



- Professor Madhu Bhaskaran
 - madhu.bhaskaran@rmit.edu.au
 - T: [@madhu_bhaskaran](https://twitter.com/madhu_bhaskaran)

IF YOU DON'T
ASK THE
ANSWER IS
ALWAYS NO



<https://freedomrhetoric.wordpress.com/2016/10/15/intersectional-rosie-the-riveter/>