



**Women in STEM
Ambassador**

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New national taskforce releases report to tackle gender disparity in engineering

A new independent national taskforce to tackle the significant deficit in the numbers of women studying engineering, the Engineering for Australia Taskforce, has launched a report today which identifies a need to change the perception of engineering in society and schools if gender diversity in engineering is to improve.

The Engineering for Australia Taskforce was created by the Deans of Engineering at Monash University, the Australian National University (ANU) and the University of New South Wales (UNSW Sydney) to address the gender disparity in applicants for university engineering programs by tackling the barriers to girls' participation in engineering.

The Taskforce's first action was to commission a report, titled 'Barriers to participation in engineering and the value of interventions to improve diversity', authored by Professor Deborah Corrigan and Dr Kathleen Aikens from Monash University.

The report explores the factors which affect girls' participation in STEM and engineering and looks at 115 international peer-reviewed research articles to identify key considerations when creating programs to attract girls to engineering.

The report recommends three actions to improve engagement with engineering:

- Create an inclusive vision for STEM and engineering to address persistent stereotypes, which invites and welcomes excluded groups to see engineering careers as real possibilities.
- Work with the education sector to create a STEM and engineering identity in schools, by making engineering activities prominent, positive and personally and socially relevant.
- Evaluate engineering intervention programs to map the landscape and build the evidence base of impact.

Professor Corrigan, Director of Monash University's [Education Futures](#), said: "The opportunities to impact the lives of so many through STEM is a real possibility that is not well understood."

"There is widespread, cross-national evidence that girls experience lower levels of confidence and higher levels of anxiety with respect to STEM subjects. We have to first focus on wider STEM interventions as a start, while raising the profile of engineering which is silent within the school curriculum."

The Taskforce agreed that more needs to be done to encourage young people, especially girls, to study STEM subjects in school, drawing upon best practice scenarios from across the world.

Professor Mark Hoffman, Dean of Engineering at UNSW, said: “Engineering needs the profession’s makeup to reflect the society it serves, and that means we need more women gaining confidence at school to join engineering programs at university.”

“Engineers make our world, and we should be making a world that we all want to live in. Highlighting and then removing the current barriers to participation in engineering and evaluating possible interventions to increase diversity, will be invaluable to that vision,” Professor Elanor Huntington, Dean of the College of Engineering and Computer Science at the Australian National University, said.

“The Engineering for Australia Taskforce believe greater equality and inclusion can begin to be achieved through the lens of this report. Along with my colleagues, I am delighted to support the release of this report.”

The Taskforce includes representatives from Monash University, UNSW Sydney, ANU, the University of Technology Sydney, RMIT, the University of Adelaide, the Australian Academy of Technology and Engineering, Engineers Australia, the Department of Treasury and Finance Victoria, the Australasian Institute of Mining and Metallurgy, Cicada Innovations and Gender Matters, with support from the Australian Government’s Women in STEM Ambassador.

The Australian Government’s Women in STEM Ambassador, Professor Lisa Harvey-Smith, said: “engineering skills underpin the functioning of our societies and economies, and are critical in building a sustainable future. However, fewer than 10 per cent of engineers in Australia are women.

“Not only does that mean that women are missing out on designing the future, but it also means that engineering challenges are being tackled from a narrow set of perspectives. By diversifying our engineering workforce, we will strengthen Australia’s economy and strengthen our ability to face the global challenges presented by a changing climate, food and water scarcity and globalisation.”

Professor Elizabeth Croft, Dean of Monash University’s Faculty of Engineering, says engineering is a “high impact, future-proofed career that provides rewarding opportunities to serve society and design ecologically sustainable solutions our planet needs now. We must ensure that the other 50 per cent of Australia’s bright young people, our women, are afforded every opportunity to participate.”

The research was conducted by Monash Education Futures and funded by the Australian Government’s Women in STEM Ambassador and engineering faculties from the University of New South Wales, Monash University, the University of Technology Sydney and the Australian National University.

The full report can be accessed from the Monash Education Futures website:
<http://educationfutures.monash.edu/barriers-to-participation-in-engineering>.

Media contact: Lauren Sullivan, womeninstem@unsw.edu.au, +61 02 9385 5218

Researcher contact: Professor Deborah Corrigan, education.futures@monash.edu, +61 427 685 772