



NACEW

**WOMEN IN
INNOVATION
SUMMIT**

Enabling & Empowering
through the Tech Sector

**SUMMARY &
RECOMMENDATIONS**

EXECUTIVE SUMMARY

This report provides a summary of the NACEW Women in Innovation Summits and the resulting outcomes.

The purpose of the Summits (Auckland and Wellington, June 2014) was to bring together key stakeholders in the digital technology sector to identify barriers and opportunities and seek recommendations on how to increase women's participation across the sector.

Attendees represented education, technology practitioners and businesses, industry associations, and both central and local government. A total of 90 people attended the Summits.

The recommendations made clustered into the following six themes:

- Co-ordinated action and collaboration across the sector
- Increased visibility of women in technology as an appealing option for girls and women
- Key role of influencers – educate parents, careers advisors and teachers about the diversity of career opportunities using digital technology
- Improvements in the delivery of digital technology education across the system
- Employment practices that increase diversity in the workplace
- Encourage innovation in business and education

MBIE's Occupation Outlook 2014 identifies the top 4 high projected growth STEM occupations are:

1
Database & Systems Administrators

2
ICT Network and Support Professionals

3
ICT Managers

4
Business & Systems Analysts and Programmers

NACEW has considered all the recommendations attendees made and will be preparing advice for the Minister of Women's Affairs with recommendations for further action.

SUMMARY OF THE ISSUES

Digital technology provides a platform for innovation across all sectors and enables innovation. Innovation is one of six key ingredients Government identifies in the Business Growth Agenda that businesses need to succeed and grow. ¹

In recent years there has been revolutionary and rapid advancement in digital technology. Increased use across all sectors of the New Zealand economy is generating employment growth across a range of skill sets and currently, the labour market pipeline is struggling to meet the demand for suitably skilled and qualified employees.

In 2011 only
20%



of Bachelor of Science
in Information Technology
graduates were **women**

Few women are gaining qualifications in digital technology fields including computer science and software engineering, digital media design and business IT. Therefore women are underrepresented in the digital technology workforce. To meet the demand for skilled employees in this sector, the pipeline of female graduates into employment needs to be increased. In 2011, just 20 percent of students completing a Bachelor of Science in Information Technology were women.

¹ New Zealand Government (2012) Building Innovation: Progress Report.

THE PURPOSE

OF NACEW'S WOMEN IN INNOVATION SUMMITS

NACEW is an independent advisory body to the Minister of Women's Affairs on matters related to the employment of women. NACEW's aim in organising the Women in Innovation Summits was to bring together stakeholders across the technology sector to identify barriers and opportunities for increasing women's participation in the digital technology sector.

NACEW wanted to identify priority actions to recommend to the Minister and build momentum for change. This included identifying people and organisations to champion the issues. The Summits provided a catalyst to begin conversations in this area.

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SUMMIT ATTENDEES

NACEW greatly appreciated the enthusiasm and generous participation of attendees and speakers at both Summits.

NACEW invited a range of individuals and organisations working across different parts of the digital technology sector to the Summits. On the demand side we invited employers and practitioners from different sized technology businesses at different stages of maturity. We also invited industry associations representing different technology stakeholders. On the supply side, we invited institutions and businesses involved in providing technology education (primary, secondary, and tertiary education, and through the private sector). Secondary school students also attended both Summits.

We invited government officials involved in developing the policy environment and setting standards for digital technology education as well as local government officials responsible for economic growth through the technology sector.

At the Auckland Summit we hosted around 55 attendees and in Wellington we hosted around 35 attendees.

Six speakers presented across the Summits including:

- Frances Valintine, The Mind Lab by Unitec
- Helen Robinson, Independent Director
- Prof. Shaun Hendy, University of Auckland
- Melissa Clark-Reynolds, Looxie
- Rod Drury, Xero
- Victoria Crone, Xero

Innovation is

1 of the **6** key ingredients
for businesses to thrive,

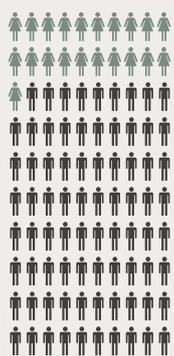
as identified by the Government
in its Business Growth Agenda

THE CHALLENGE

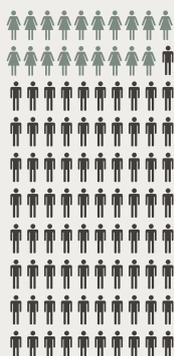
PRESENTED TO SUMMIT ATTENDEES

At the Summits, attendees were asked to identify the barriers and opportunities for girls and women participating in the technology sector. Attendees were asked what they would recommend “if they could change one thing” to improve women’s participation in the technology sector.

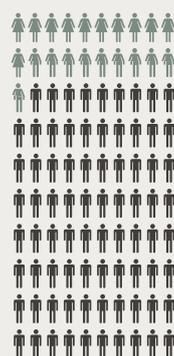
From 2013 Census of Population and Dwellings:



38,568
Computing Professionals
only **25%**
9,732
women



6,132
IT Managers
only **22%**
1,362
women



6,291
Computer Equipment Controllers
only **25%**
1,584
women

KEY MESSAGES

SOME KEY MESSAGES FROM THE SUMMITS INCLUDED:

- There is strong labour market demand for more skilled technology professionals.
- Many employers recognise the need to increase the number of women who graduate with Information Technology qualifications to help meet the demand for skilled technology professionals.
- Due to the shortage of graduates there is an increased opportunity for New Zealand women to gain good employment in the sector.
- We need to raise the visibility of digital technology as an appealing career option for girls. Many people lack of awareness of the fantastic opportunities that a career in the technology sector has to offer. More female role models need to be widely profiled if this is to change.
- The gender balance of companies should reflect their customer base. Acknowledging that women make 80% of all household technology purchases, companies would be better positioned to meet their customer's needs by employing more women to be involved in the design and development process. The low numbers of female graduates limits the pipeline of women available for roles in the sector.
- Confidence remains a barrier for many women in terms of choosing, advancing and talking about their careers in all sectors. We need to find ways to assist women to develop strategies to change this reality.
- Encourage girl's interests in a range of subjects, including technology from a young age. Parents are key influencers and can encourage young people to embrace the opportunities technology presents even if technology is unfamiliar to them. Girls career choices are formed at around 12 years of age (New Zealand school years 7 and 8).
- The style of delivery of education in New Zealand is not necessarily keeping pace with the rapid advancements in the technology sector. Technology presents an opportunity to seamlessly integrate learning across subjects that would make it more relevant to the workplace. Improvements could be made around the integration of technology in schools and teacher training and professional development.
- Several speakers noted that New Zealand has no overarching technology plan to address many of the issues facing the digital technology sector, including the skill shortage in the sector.
- Advancements in technology and the rapid pace of change has led to a societal and generational divide between people who have embraced technology and those who are lagging behind.

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A more detailed account of the participant's comments is attached in Appendix One.

SUMMARY OF OUTCOMES

Overall, the Summits highlighted that a dynamic technology industry is developing at a rapid pace in New Zealand. This is a young and emerging profession, with a professional identity that is under development.

Employers in the technology industry said they struggle to find suitable candidates for positions. Technology employers wanting to employ women have limited choices.

Attendees identified a general public misconception that the digital technology sector is dominated by “geeks and freaks” and is therefore not necessarily aspirational to women and girls. Participants noted that many parents, especially mothers, can be fearful of technology and have a distorted and negative image of the industry. This can discourage girls from considering digital technology as a career choice from a young age. There is also a general lack of awareness about the employment opportunities available in the technology sector, especially for girls.

Many Summit attendees were of the view that the **Education Sector** has been slow to **respond** to industry needs

NEXT STEPS

One of the objectives NACEW aimed to achieve by holding the Summits was to build a community of interest and momentum for change. Many connections were made at the Summits and many attendees and speakers indicated they are keen to continue to work together with NACEW and each other to achieve the aim of increasing women's participation in digital technology.

NACEW had considered all the recommendations attendees made and will be preparing advice for the Minister of Women's Affairs with recommendations for further action.

To keep updated on work in this area
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