

Chapter 1

The Smart Women – Smart State Strategy: A Policy on Women’s Participation in Science, Engineering and Technology in Queensland, Australia

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ABSTRACT

Despite growing demand for skilled workers, women remain under-represented in science, engineering and technology industries. Limited opportunities for women not only impacts upon individual women’s access to the workforce and economic security, but also means that the State does not have the appropriate skills for future growth. In Australia, the Queensland State Government developed and implemented a strategy to promote science, engineering and technology to women and girls, and to retain women in these fields of education and work. The strategy involved a range of methods, including policy and program delivery, to engage women and girls at different points of their lives. This chapter gives an overview of the Smart Women – Smart State Strategy and the initiatives delivered as part of the strategy, and finishes by highlighting the need for ongoing strategies to effect social and attitudinal change. This overview highlights the importance of policy development and delivery that is gender sensitive, as well as the broader social and economic benefits of women’s equitable participation in science, engineering and technology.

INTRODUCTION

The Queensland Government’s *Smart Women – Smart State Strategy* (the Strategy) was an innovative response to address the under-representation of women in science, engineering, and technology in Queensland, a state of Australia. From 2005 –

2009, the Office for Women (OFW) coordinated the delivery of the Strategy which encompassed the integration of policy analysis and development with program delivery. The Strategy utilised strategic leverage points with industry and Government to promote science, engineering and technology (SET) education and careers to women, profile women achieving in SET, and to influence employers in SET industries to consider strategies to attract and

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retain women. OFW are recognised as leading policy development and implementation to support the participation of women in SET in Australia.

Research on women's participation in SET, and OFW's expertise in social policy and gender analysis, demonstrated the need to understand the issue of women and girls' under-representation in SET as embedded in gendered structures of education, training and workforce participation. Developing and implementing initiatives to address the participation of women and girls in SET was therefore not just focussed on promoting opportunities in areas in which women are under-represented, but also needed to be sensitive to the social dimensions of study and work in some male-dominated areas of SET. The Strategy needed to recognise the gendered dimensions of women and girls' participation in SET, which are economic and social in cause and effect. The Strategy therefore recognised some of the possible economic benefits to women and girls (for example, employment in well-paid areas of skills shortage) as well as some of the challenges for women studying and working in SET industries (for example, women employed on research grants can lack access to maternity leave provisions). The Strategy identified the need to promote social and structural change in education, in the workforce, in leadership, and in perceptions of appropriate work and study for women and girls.

While the extent of systemic change sought by the Strategy was ambitious, during the five years of its implementation (2004 – 2009) a number of successful outcomes that assisted, and will continue to support, women and girls' participation in SET were achieved. These included: profiling women's achievements in SET at OFW's *Smart Women – Smart State Awards*; supporting retention of first year female engineering students at *Women Engineering Queensland* workshops; developing information resources to assist women in SET, and employers; and raising awareness of the barriers to women's participation in SET education and employment within industry, academia and

across government. The Strategy extended the Queensland Government's *Smart State Strategy* by applying gender-sensitive policy analysis to ensure that women had the opportunity to contribute to, and benefit from, Queensland's strategic policy direction to address long-term skills needs and promote economic development.

BACKGROUND

The *Smart State Strategy (2005 – 2015)*, launched by the then Premier, the Honourable Peter Beattie, promoted the development of a knowledge economy for Queensland, a State that has historically been focussed on primary industries and resources. The *Smart State Strategy* envisioned a State in which economic growth and prosperity are driven by knowledge, creativity and innovation, particularly in biotechnology, information technology, nano-technology and communication technology. The Strategy recognised that in order to meet the Smart State objectives there was a need to expand the SET workforce. Because of the under-representation of women in SET, increasing the participation of women and girls in SET education and employment was one important way to boost the State's SET workforce while also providing new opportunities for women to benefit from entering into SET study and employment.

Prior to the launch of the *Smart State Strategy*, Dr Lesley Clark, former Member of Parliament for Barron River, and Parliamentary Secretary to the Premier, developed the *SET for Success in the Smart State* report, which documented the barriers to, and under-representation of, women in SET as an issue to be addressed under the *Smart State Strategy*. A number of Dr Clark's recommendations were implemented. Specifically an awards program to recognise and promote the achievements of women in SET commenced in 2004 (the *Smart Women – Smart State Awards*), and a taskforce was established in 2005 (the *Smart Women – Smart State Taskforce*).

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