

Progressing **STEM Skills** in Australia

STEM skills are increasingly important for the competitiveness of the Australian economy. Australia is underperforming internationally compared to STEM strong countries and must implement strategies to address this.



The Importance of STEM skills

STEM disciplines are important for the future economic and social well-being of Australia



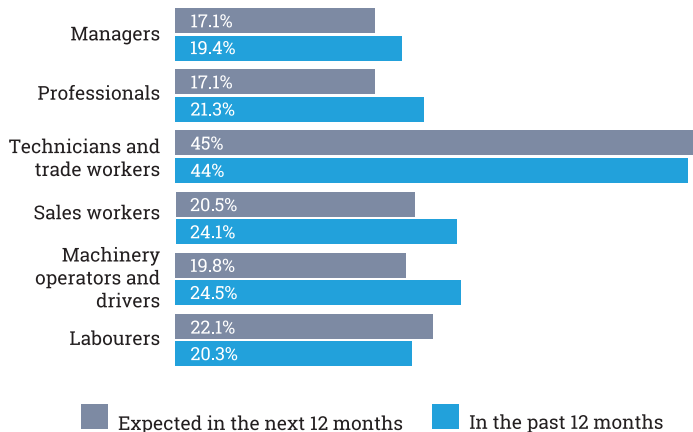
75% of the fastest growing occupations require STEM skills and knowledge



STEM qualified jobs grew by **14%** between 2006 and 2011

What the employers are saying

Difficulties recruiting staff with STEM skills



The current situation

In the workplace

70%

of employers consider STEM staff as among their most innovative

82%

agree STEM skills are valuable to the workforce

45%

of employers expect requirements for STEM-qualified employees will increase over the next 5-10 years

International comparisons



STEM strong countries share common features such as:

- **Innovative programs** to lift STEM participation
- **Strategic national STEM policy** frameworks with centrally driven and funded programs

In the schools



- There is a **decreasing number of students** participating in advanced mathematics
- Participation rates in **physics, chemistry and biology** have all declined.

In the tertiary education sector



over the past 10 years, STEM course completions decreased from **22% to 16%**

WHAT NEEDS TO BE DONE

National Strategy

Develop a national STEM skills strategy to lift the level of STEM qualified employees in the workforce.

STEM in the schooling sector

Strategies are required to raise the participation of the school students in STEM related programs and activities

STEM in the Higher Education sector

Implement strategies to expand participation by undergraduates in STEM related disciplines.

STEM in the VET sector

Build numeracy skills to support STEM fields of study in the Vocational Education and Training sector.

Resourcing

Australian Government financial support for STEM related activity within a coordinated national approach.