

## AUSTRALIA

### Record investment lifts university research rankings

In 2012, the Australian Research Council conducted the second evaluation of *Excellence in Research for Australia* (ERA). The report provides the outcomes of the ERA 2012 evaluations, which applies to research undertaken between 1 January 2005 and 31 December 2010.

The ERA 2012 Report shows that the number of disciplines that Australian universities perform at above world standard level has doubled. Ten Australian universities are performing above the world standard for research, including four performing at well above world standard as a result of the Australian Government's record investment in research.

"The ERA report shows Australia is on track to have 10 universities in the world's top 100 by 2025 - a target set out in the Australia in the Asian Century White Paper," said Science and Research Minister, Senator Chris Evans.

The report shows that 97 per cent of Government funding in competitive grants - more than \$3.75 billion over the reporting period - is invested in research at or above world standard. There has been a 24 per cent increase in the amount of research being undertaken, a 16 per cent increase in the number of patents being secured and a nine per cent increase in the number of researchers employed.

Senator Evans said the Gillard Government had deliberately invested heavily in fellowships to keep the world's best researchers in Australia.

"More of the world's best and brightest researchers are now calling Australia home and, as a result, a greater number of our universities are producing more world-class research," Senator Evans said. For more information on ERA and to view the report, visit [www.arc.gov.au/era/](http://www.arc.gov.au/era/)

## East Asia

East Asian countries continue to lead the world in mathematics achievement. Singapore, South Korea, and Hong Kong, followed by Taiwan and Japan, were the top-performing countries in the Trends in International Mathematics and Science Study (TIMSS) 2011 at the fourth-grade level. Similarly, at the eighth-grade level, South Korea, Singapore, and Taiwan outperformed all countries, followed by Hong Kong and Japan.

With respect to science achievement, South Korea and Singapore were the top-performing countries in TIMSS 2011 at the fourth-grade level, followed by Finland, Japan, the Russian Federation, and Taiwan. At the eighth-grade level, Singapore had the highest average achievement, followed by South Korea, Taiwan, and Japan.

In particular, Singapore's primary and secondary school students remain world beaters in mathematics and science according to TIMSS 2011. The test scores showed that not only did Singapore increase its share of top performers, but the weaker students also moved up, improving their scores. And the way Singapore students approached the questions in the most recent test indicates they are moving away from rote learning and applying higher-order thinking skills. The

results validate the approach adopted by Singapore's Ministry of Education more than a decade ago to trim syllabuses and allow more time for teachers to develop critical thinking skills in their students. According to TIMSS 2011, Singapore's 10-year-olds achieved the highest mean score of 606 in mathematics, beating South Korea and Hong Kong, and the second-highest score of 583 in science, behind South Korea. Singapore's secondary-school students who took the test were ranked No. 1 in science and No. 2 in mathematics. <http://www.timss.com/>

## **New Zealand**

### **Government Funding Mechanism**

The Ministry of Business, Innovation & Employment (MBIE)'s funding and support programs uses Contestable, On-demand, and Core funding processes. MBIE has two investment boards, Science Board and Innovation Board. They make independent investment decisions on funding proposals that are referred to them by the MBIE chief executive. To learn details, see:

<http://www.msi.govt.nz/about-us/how-we-invest/>