

Australia Must Realize Science Potential, Says Academy President

Monday, May 07, 2012

<http://www.asianscientist.com/features/science-at-the-shine-dome-suzanne-cory-2012/>

AsianScientist (May 7, 2012) - Speaking at the Science at the Shine Dome 2012 on Thursday last week, Australian Academy of Science President, Professor Suzanne Cory, expressed confidence that Australia's scientific potential has never been greater, but urged for greater overall science and technology investment.

The annual three-day event included a general meeting, induction of new fellows, presentation of awards, and a scientific symposium with the theme: *100 years of Antarctic Science*.

“Australia has a rich heritage of scientific endeavor. We have given the world WiFi; the bionic ear; the influenza drug Relenza; Gardasil to prevent cervical cancer; and polymer chemistry that has transformed the plastics industry - to name but a few great Australian successes,” said Cory.

“And last year [Professor Brian Schmidt](#) received the Nobel Prize for Physics for his world view-changing work on the expansion of the universe. His win was an inspiration to us all,” she added.

But there remain threats to Australia's potential to discover and innovate, said Cory. In particular, she urged for more effort to be taken in three areas: the level of Australian investment in R&D; engagement with the global science effort; and the science literacy of its workforce and community.

Investment and engagement is necessary

Australia spends around 2.2 percent of its gross domestic product – or around AU\$900 per person per year – on research and development, said Cory.

This amount is insufficient, said Cory, when contrasted against Israel's 4.6 percent, and Finland and Sweden's 3.6 percent. South Korea is even aiming for five percent, she said.

“This is why the Australian Academy of Science has called for the creation of a Sovereign Fund for Science. We want Australia to set itself the goal of increasing its investment in R&D to at least three percent of GDP by 2020, to secure the future prosperity of the nation,” she said.

Citing personal observation, Cory said that Australia's major partner economies in Asia are in the middle of a science and innovation boom. Asia certainly understands the importance of investment in R&D for economic competitiveness in the 21st century, she said.

"China's investment in R&D accounted for 13 percent of the OECD total in 2008, up from five percent in 2001. This rapid growth shows no signs of slowing. I have seen it with my own eyes! Furthermore, India, South Korea, Singapore, Malaysia, and Indonesia all show strong R&D growth," she said.

Australia must engage international partners in science, said Cory. Accordingly, late last year the Academy launched a position paper *Australian science in a changing world: Innovation requires global engagement*, that puts a strong economic case for investment in fostering Australia's international science relationships.

Another action taken by the Academy was its submission to the government's [White Paper on Australia in the Asian Century](#), which called for an AU\$250 million federal investment over ten years – or 0.25 percent of current total government spending - on science, research, and innovation.

Science literacy of the Australian workforce

Australia's future prosperity will depend upon a skilled workforce, innovation and entrepreneurship, high productivity, and the creation of a knowledge-intensive economy, said Cory.

However, she warned that Australia is in danger of progressively de-skilling its workforce. A recent report commissioned by the Industry Skills Councils found an alarming deficit in even the most basic language, literacy and numeracy skills in Australians.

On the number of students studying science subjects, Cory said that "Australia hasn't been doing terribly well" in recent times. Research by the Academy has found that [barely half all year 11 and 12 students in Australia study science subjects](#), a number which is in steady decline over the past two decades.

Quoting from Sir Paul Nurse, geneticist and President of the Royal Society, as well as Professor Ian Chubb, Chief Scientist of Australia, Cory discussed the need for new measures to strengthen Australia's position in science and technology.

One of these measures taken is the formation of two new Parliamentary Friendship groups - which are formal but non-political forums where members of parliament and senators convene on a bi-partisan basis - to ensure science is made a permanent priority of parliament.

The first group, called the Parliamentary Friends of Science group, will be launched later this month by Nobel Laureate Brian Schmidt and co-chaired by Labor MP Richard Marles and Liberal MP Karen Andrews.

The second group, called the Parliamentary Friends of Women in Science, Engineering and Maths, will be launched in June by Nobel Laureate Professor Elizabeth Blackburn and co-chaired by Labor MP Amanda Rishworth and Liberal MP Kelly O'Dwyer.

Both parliamentary groups aim to enhance the engagement of politicians with science, and help promote

awareness of the conduit between policy inputs, said Cory.

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