



## SENATOR KIM CARR

Minister for Innovation, Industry, Science and Research

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Wednesday, 2 February 2011

### SECURING THE FUTURE FOR AUSTRALIA'S RESEARCHERS

Australian researchers can look to the future with renewed confidence, thanks to a new Industry Doctoral Training Centre and the Australian Government's Research Workforce Strategy.

The new centre will foster professional skills among researchers and help them launch their careers in industry. It is being funded by the Australian Technology Network (ATN) of Universities: the RMIT; Queensland University of Technology; the University of Technology, Sydney; Curtin University; and the University of South Australia.

Launching the pilot centre in mathematics today at the annual ATN Symposium, Innovation Minister Senator Kim Carr congratulated the ATN on its efforts to bridge the gap between the academy and the factory floor.

"This centre recognises that collaboration between universities, businesses and students is vital," Senator Carr said. "It is the only way we can meet the growing demand for skills while opening secure career paths for researchers".

"The discipline of mathematics is an area of critical industry and research need, and I applaud the ATN for its efforts to build Australia's capabilities in this area."

The 13th Annual ATN Symposium is a two day conference at the University of South Australia. Participants will explore ideas for building Australia's research and innovation workforce.

Speaking at the symposium, Senator Carr said the ATN's theme was timely.

"The Government has worked closely with the higher education sector to develop a comprehensive strategy for the Australian research workforce in the decade to 2020.

"We must invest in our researchers today if we are to meet the demand for university places, skilled workers, and innovative ideas tomorrow. The global competition for research talent and capital will be fierce, but the Australian Government is determined to help universities meet the challenge."

For more information about the ATN Symposium, visit <http://www.atn.edu.au/atnconference>.

For more information about the Gillard Labor Government's Research Workforce Strategy, visit [www.innovation.gov.au](http://www.innovation.gov.au).

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# **2011 ATN Symposium**

**Senator Kim Carr  
Minister for Innovation, Industry,  
Science and Research**

**2 February 2011**

**Hawke Building Chancellery, University of South  
Australia**

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## **Introduction**

It's a good time to come to major conferences under the banner of Innovation Minister.

World leaders across the political spectrum now recognise that in the global knowledge economy, you innovate – or you go under.

That is clearly the message of the UK government in "ring-fencing" much of their innovation investment.

It was no less central to President Obama's recent State of the Union address.

It was vital, the President said, to invest in industry and jobs; invest in innovation in science, in education, and in high-speed broadband.

It was vital to build links between industry and researchers.

It was vital for America to 'win the future'.

None of those ideas should be unfamiliar to this audience.

Ordinarily, I'd be honoured to see the policies of the Gillard Government get international endorsement.

But make no mistake.

'Winning the future' means winning the global fight for research capital and talent.

Between 2001 and 2007, American R&D investment as a percentage of GDP declined an average 0.5 per cent each year. Compare that to China, which boosted her R&D investment at an annual rate of 5.7 per cent over the same period.

Today, US firms spend over twice as much on litigation as they do on research.

They locate 23 per cent of their R&D employment abroad.

They report crippling shortages in the research workforce and chronic delays in the patent system.

A President staring down the barrel of a \$16 trillion national deficit by 2020 cannot afford to ignore those trends.

The State of the Union address has now made it clear that American jobs, and national productivity, rely on R&D investment coming home.

Well may we welcome a renewed political debate that emphasises the importance of innovation and jobs.

We, however, shouldn't mistake the determination of the US political system to reassert US global economic leadership by rebuilding US domestic capabilities.

In Australia, our response cannot be confined to ritualistic mutterings about the evils of protectionism.

What is more useful is to redouble our efforts to meet the challenge of global competition by becoming more innovative, more productive and more competitive ourselves.

The trick here is to ensure that we don't fail in our race to the top in building our competitiveness – rather than resorting to an unsustainable race to the bottom.

For our part, this can best be achieved by building the partnerships between key sections of our innovative systems – universities with each other, and universities with the private sector.

These are the key principles of *Powering Ideas*, our ten year plan to build a more innovative Australia.

Because we recognise the importance of R&D, we have made achieving our R&D Tax Credit a very important part of this year's work.

We won't be put off by Liberal Party obstructionism.

Our new R&D Tax Credit will be an important addition to our push to transform the Australian economy.

This should assist universities to deepen their relationship with investors in the private sector.

## **ERA**

Australia will call on the ATN, and all our universities, to maintain our place in the global contest for research talent and capital.

As Professor Glyn Davis highlighted in his recent Boyer Lectures, Australian public universities share a common mission.

All aspire to be research institutions; all deliver courses in a wide range of disciplines; all are large; all have similar administrative structures.

Professor Davis has argued that, while public funding is critical for research, it can't be expected to cover all types of higher education delivery as the system expands.

It follows that diversity and specialisation must be promoted to support the rapid expansion of higher education, without compromising our claims to excellence.

That is a conversation we can now continue, based for the first time on a robust measure of our performance against global standards.

As you will be aware, I released the first ERA National Report two days ago.

I have every faith in our universities. The Labor Government would not invest billions of dollars in Australian research if we doubted your potential.

But we do not ask students to take your claims to excellence on trust. We do not ask business to take them on trust. We demand robust evidence that stands up to scrutiny.

That evidence is now on the table.

ERA has confirmed our basic impressions about the research landscape, including the strengths of the ATN universities.

Sixty-one per cent of the units of evaluation for ATN universities were rated at world standard or above. Individual institutions performed well above that standard across a broad range of disciplines, including Chemistry, Agricultural Sciences, Nursing, and Information Systems.

But this is not an exercise in empty self-praise. And it is not a time to conceal or excuse the weaknesses in our research system.

Take, for example, the fact that twenty-six Australian institutions failed to meet world standards in the Business and Management field.

I suggest it's no coincidence that management skills in Australian firms are mediocre at best, according to the 2009 Roy Green Management report.

Professor Peter Hoj makes a telling point in today's *The Australian* when he notes that: "as Australia moves to transform its manufacturing and automotive industries, no Australian university made an ERA submission in engineering design". I might add, the same can be said about automotive engineering.

We can and we must do better. I trust you share my resolve.

### **Making ERA the cornerstone**

Let me emphasise that ERA will shape research policy and planning at every level.

It begins now, with the incorporation of ERA into the mission-based compacts we will shortly finalise with each institution.

Nor have I concealed my resolve to use ERA to guide the allocation of research funds.

I read in the press that some are concerned that they do not know how ERA will affect funding.

My practice is to consult before we act, and this is what we intend to do.

My department, in consultation with the ARC, will shortly open discussions with universities to build ERA into the funding methodology for the Sustainable Research Excellence program in 2012.

Nearly \$122 million dollars will flow to Australia's 41 higher education institutions in 2011 through this program; and the figures will increase each year.

However, we should not lose sight of the fact that ERA opens opportunities not just for government to make more informed decisions.

ERA will also help guide students and university administrations in their choices concerning research priorities.

## **Research Workforce**

ERA is no less critical to the future of the Australian research workforce, the timely theme of today's Symposium.

Work has already begun on ways for ERA to inform the funding of research training through the Research Training Scheme (RTS).

The future of the research enterprise in this country is simply too important to be guided by activity measures alone.

It is also too important to be left to hunches and the remnants of historical arrangements instead of deliberative planning.

While recognising that today we face considerable budgetary constraints, our fiscal position will improve over time.

That is why the government is developing a comprehensive strategy to meet our research workforce needs over the decade to 2020; and ensure we harness our talent pool as effectively as possible.

The development process concluded at the end of 2010, and the strategy will be released shortly.

I acknowledge the rich contribution of the ATN and Professor Milbourne to that process.

### **ATN Doctoral Training Centre**

The challenges before us are clear.

We must raise the quantum of trained researchers. We must raise the quality of research training. We must do it in an era of tight budgets. And we must learn to collaborate to maximise the value of our investments.

These challenges cannot be addressed piecemeal; nor can they be addressed without new thinking in the research community.

That's why I am delighted to announce this morning the creation of the new ATN Industry Doctoral Training Centre, an Australian first in research training.

Funded by the ATN partners, it will foster the development of professional skills for researchers, bridging the gap from the academy to the factory floor.

The pilot centre will focus on the discipline of mathematics, an area of critical research and industry need.

I congratulate the ATN on this initiative, and I am sure the competition for places will be fierce.

### **Supporting the roll-out of the Research Workforce Strategy**

Let me assure you the government is not standing idle whilst we await the release of the Research Workforce Strategy.

New ARC fellowships have been created for women, Indigenous researchers, and early career researchers, to nurture talent and lower impediments to participation.

And our new Industrial PhD program will give up to two hundred research students the chance to work right at the heart of industry.

The first one hundred Awards will be offered in 2012, with a second round to follow in 2014.

We cannot, of course, reach every student and every business through that targeted support. Scholarships alone will not drive a nationwide cultural change.

But there's one thing no business ignores – and that's their tax return.

That's why we are determined to ensure the taxation system promotes industry investment in Australian research.

Our emphasis with these changes is to support innovation in small and medium firms.

These businesses are more likely to respond to financial incentives when it comes to changing their behaviour, and investing in their own future through R&D.

## **Conclusion**

Our task today is to convince those businesses, and every Australian, of the value of investment in university research.

I have said many times that universities must be more responsive to the communities that sustain them.

Their taxes pay a lot of the bills.

We can never take that support for granted.

Nor will the Australian Government fund activities which we cannot justify to the people.

We need to explain to them the value of their investment in higher education and research.

Productivity will dominate the political agenda in 2011, and the voice of universities must be heard.

You are a vital part of our mission to build a fairer, richer, greener Australia – and the public has got to hear it.

R&D has a critical role in our determination to lift living standards and prosperity.

We can be up there with the best in the world – and we need to be to achieve our objectives.

I ask you to join me in the fight to secure our future.