



Government of
South Australia

SPEECH NOTES

Hon Susan Close MP

Minister for Manufacturing and Innovation, Minister for Automotive Transformation and Minister for the Public Sector representing Minister for Employment, Higher Education and Skills

**Innovative Research Universities (IRU) –
Innovative and Economic Transformation: The role of Universities**

**Flinders University
182 Victoria Square, Adelaide**

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- Professor John Dewar, Vice Chancellor, La Trobe University and current Chair of IRU;
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- Professor Richard Higgott, Vice Chancellor, Murdoch University; and
- Professor Simon Maddocks, Vice Chancellor, Charles Darwin University.

- Thank you for having me address you this morning here at Flinders University, my alma mater, to open the Innovative Research Universities Senior Staff Forum.
- The Minister for Employment, Higher Education and Skills, the Hon Gail Gago, sends her apologies but she is currently overseas meeting her higher education and science counterparts in Singapore
- And no doubt she is exploring new opportunities for research partnerships and education exchanges – the type of collaboration that contributes significantly to South Australia’s economic prosperity and the national economy.

- This brings me to the subject of today's address ... South Australia as a case study of the challenge of economic renewal.
- South Australia has a strong track record when it comes to economic renewal.
- During the State's early colonial times our economic success was largely tied to the price of copper and the production of wool and wheat.
- In the late 19th century South Australia's economic base diversified and industrial activity began to account for a greater share of production.

- But it wasn't until after World War II that manufacturing activity really took off in this State.
- Industries associated with wartime production were converted to domestic manufacturing and South Australia became home to a number of different industries such as white goods manufacturers, steel smelters, ship builders and importantly, car manufacturers.
- South Australia has weathered international and local economic shifts, from the oil shocks of the 70s through trade liberalisation and deregulation of the 80s to the dot com boom and bust.

- During the transition between each of these periods, the State has been able to fall back on its agricultural sector as well as the discovery of new minerals and resources deposits and the rise of the services sector.
- However, it is the emergence and growth of new industries which I will focus on today and, in particular, the importance of government support for innovation and commercialising ideas – an area where engagement between universities and industry is becoming critically important.
- From the perspective of workers and their families, the transformational challenge facing South Australia today is significant.

- When Holden closes its Elizabeth plant in 2017, South Australia risks losing more than 13,000 jobs from the automotive sector and the industries that rely on these workers and their families for their livelihood. That is if we stand back and do nothing.
- As a government, standing back and watching this seismic shift in our manufacturing sector occur is not an option.
- That is why we have set in train a number of integrated policies to not only encourage diversification in the automotive supply chain but support other industry sectors to create jobs, exports and economic growth for our State.

- South Australia is not alone.
- I'm sure the representatives from campuses in Victoria are well aware of the challenges faced by Ford's closure in 2016 followed by Toyota in 2017.
- This could be confidence sapping events for our national economy.
- However, let me assure you that it is not all doom and gloom.
- In many respects South Australia is already firmly on a journey of economic rejuvenation and has been for some time.

- The key challenge facing South Australia is to continue the transition we began more than a decade ago to widen our economic base to support a much more diverse range of industries capable of withstanding the challenges of higher dollar and an import competitive market.
- The South Australian economy has changed considerably in recent years, becoming less reliant on manufacturing as a source of employment.
- At the same time, a range of other industries – such as professional and technical services, health, construction, tourism, minerals, oil and gas

and defence – have also grown to provide a more varied array of job options for South Australians.

- Mining and defence industries are two specific areas this Government has targeted for job growth.
- Launched in 2004, South Australia's Plan for Accelerating Exploration, or PACE, promotes the state as a premier destination for mineral and energy investment.

- For example, our minerals and resources sector has grown five-fold from four mines in 2002 due to this Government's support for exploration, research and training.
- Employment in the minerals and resources sector has more than doubled to more than 15,000 in 2013¹.
- Through a partnership between industry, academia and government, a industry has grown with jobs embracing engineering and sciences as well as services to support the workers at the mine site.

¹ Heithersay, Paul (May 2014). Presentation to the Resources and Investment Symposium Broken Hill. "South Australia's Mineral and Resources Update). Slide 9.

- In 2013, South Australia's resources production reached a record high of nearly \$7 billion, of which \$4.7 billion was exported. This equates to 38% of South Australia's total exports.²
- During the next 16 years, our resources sector has been forecast to create a further 35,000 jobs³, with major mining investments planned across the State including the Yorke and Eyre Peninsulas.
- Despite a delay in announcing its expansion, BHP Billiton continues its work to unlock the value of the Olympic Dam copper, gold and uranium deposit.

² ibid, slide 9

³ Treasurers Budget Speech, page 10

- In the next five years, companies have committed to investing up to \$3.5 billion to develop oil and gas across the Cooper Basin.
- World-class oil companies such as BP, Chevron, and Santos are investing more than \$2 billion in the offshore Bight Basin.
- This hasn't happened by accident.
- This Government took a conscious decision to support the resources and energy sector. And that support continues today through the assistance provided in the latest State budget.

- The State Government has committed \$52 million in the next two years for skills and training across a range of priority areas, and \$44 million in the next four years will fund the construction of a new State Drill Core Reference Library, the creation of a Mining and Petroleum Services Centre of Excellence, and to continue the implementation of PACE2020, as it's now known.⁴
- On the research front, the State Government invested heavily to ensure our institutions are at the forefront of knowledge in resources sectors.

⁴ Treasurer's Budget Speech, page 10

- For example, the South Australian Government is a participant alongside large mining interests in the Deep Exploration Technologies Cooperative Research Centre.
- In the past couple of years, through the Premier's Research and Industry Fund, we have assisted in the recruitment of world leading experts to boost the state's capabilities in clean technologies and minerals processing, and most recently supported an early career researcher working with BHP on more efficient extraction technologies.
- Similar initiatives are being rolled out across the nation.

- For example, two research groups at the University of Newcastle have just been awarded close to \$800,000 in the ARC Linkage program for industry-focused projects in the fields of minerals separation and geological mapping.⁵
- Regardless of the industry sector, many of the new ideas, knowledge and skills needed to bring about economic renewal will come from our universities.
- The future success of our manufacturing sector and the ongoing economic renewal of South Australia depends on our ability to supply

⁵ Australian Research Council Linkage Projects Funding Outcomes 2013 for funding commencing in 2014. Document: Listing by State/Organisation. page 24 and p25.

higher value solutions so that new industries can compete on the basis of value rather than cost.

- In reaching this goal, government has an essential role to play in creating the right environment and policy settings to encourage more people to study at more advanced levels, to encourage entrepreneurs, and to encourage innovation and collaboration between industry and academia.
- It is through the productive interaction of the different groups in the economy that innovation occurs, productivity improves and the economy grows.

- The State Government's \$60.1 million Our Jobs Plan is delivering a range of measures to revitalise and continue to rebuild the State's economy.
- The Plan seeks to provide training and support for workers and accelerate structural changes in the economy.
- By taking advantage of new opportunities for growth, we can build new, smarter infrastructure, and support the communities most affected by the changing industrial landscape.

- Amongst a number of themes in Our Jobs Plan, there is one I will draw your attention to: and that is collaboration.
- In the research sector, collaboration enables us to stay at the forefront of new knowledge and techniques.
- It also means that different research groups can share equipment and facilities and pool resources.
- Strengthening partnerships with other researchers both local and international, with industry and with the people who will eventually use

or benefit from the outcomes of our research is of the utmost importance.

- Collaboration is a theme common to other strategic government documents such our Manufacturing Works Strategy and our Investing in Science Action Plan.
- Rather than describing in detail the policy settings and programs contained within these plans, I will share with you a couple of examples.
- In 2007, Flinders University saw the opportunity to become a focal point for education, research and development in the seafood, marine

bioproducts, biomaterials, and biofuels industries, and formed the Centre for Marine Bioproducts Development.⁶

- In 2011, the Centre received a \$20,000 grant from South Australia's Premier's Research and Industry Fund to undertake a scoping study looking at macro algae product discovery along the south eastern coastline of South Australia.
- This project was conducted in partnership with a small family owned business called Australian Kelp Products based in Millicent, a coastal

⁶ Homepage of the Flinders Centre for Marine Bioproducts Development.
<http://www.flinders.edu.au/medicine/sites/marine-bioproducts/>

town with a pulp milling industry that was struggling to remain cost competitive.⁷

- Australian Kelp Products has the only commercial seaweed licence in South Australia, which allows it to collect beach-cast seaweed washing up along our coastline.
- Of the fraction of seaweed it collects it produces a range of liquid fertilisers and dry seaweed products for livestock supplements.

⁷ ABC South East “170 job to go at Millicent, with more pain on the way.
<http://www.abc.net.au/local/stories/2011/01/25/3121518.htm>

- The Flinders University study clearly showed that our coastline has significant natural resources available to industry and that the potential existed to manufacture high value products such as functional foods and cosmetics.
- This study and the Australian Kelp Products business attracted the attention of the Qingdao Gather Great Ocean Group, one of China's largest seaweed bioproducts companies and a company I recently visited during a trade promotion trip to our sister province of Shandong.
- From here, Flinders University, Australian Kelp Products and Gather Great Ocean formalised a business research collaboration and

successfully applied for a \$300,000 Premier's International Research Grant in 2012.

- This grant was to identify seaweed species available in SA waters with commercial potential and to develop new manufacturing processes to increase product diversity, volume and yields for export markets for seaweed.
- Significantly, Gather Great Ocean also contributed \$450,000 towards the project and for the construction of a new macro algae research laboratory to support the work of the Centre for Marine Bioproducts Development.

- The most recent reports indicate that Gather Great Ocean intends to invest \$21 million over three years on a venture in the south-east of South Australia, which is expected to create about 200 new jobs.⁸
- The partnership has also opened up new opportunities for Flinders University.
- I understand that earlier this year a 17 member delegation from the University travelled to China to meet with research and commercial organisations in Qingdao and Yantai (Yan tie) with a view to participate in China's development of a "blue economy" – or the sustainable

⁸ ABC News 24 Oct 2013. <http://www.abc.net.au/news/2013-10-23/seaweed-harvest-deal-promises-jobs-growth/5040866>

development of marine resources, including algae and sponges, as well as aquaculture and fisheries, for economic gain.⁹

- On a local front, the research center and its facilities are benefitting other local businesses.
- Two months ago, Ferguson Lobster Australia, a harvester and exporter of Southern Rock Lobster, won an Innovation Voucher from the State Government to work with Flinders University to produce two new products: a homogenized lobster oil and a flavoured stock based on

⁹ Flinders University Blog entry 18 March 2014. Flinders builds fruitful China Partnerships.
http://blogs.flinders.edu.au/flinders-news/2014/03/18/flinders-builds-fruitful-china-partnerships/?utm_source=rss&utm_medium=rss&utm_campaign=flinders-builds-fruitful-china-partnerships

lobster protein powder, as well as a chitin powder to demonstrate future potential for a pharmaceutical product.

- I have highlighted these examples to illustrate the benefits of collaboration and the hugely important role research can play in identifying new business opportunities and driving the development of a new industry sector.
- It is also an example of how government incentives can work to drive, or hasten, the pace of economic renewal.

- Infrastructure that encourages and facilitates collaboration is also important when it comes to economic renewal.
- Our Jobs Plan, the Investing in Science Action Plan and the Manufacturing Works Strategy, all recognise that clusters can drive greater innovation and collaboration within industry.
- The State Government is actively working with industry to help establish smart specialisation clusters, aimed at promoting productivity improvement, product and process innovation, and securing new export business leading to economic and employment growth.

- For those of you familiar with Adelaide, when Mitsubishi closed its manufacturing plant in 2008, a 61-hectare site was left vacant at Tonsley Park just 10km south of the CBD.¹⁰
- To drive the renewal of this area, the State Government conducted a master planning exercise to transform this strategic site land into a hub.
- Already, businesses such as Siemen's, Basetec Services, Signostics, Tier5, Zen Energy Systems, TafeSA, and the new Drill Core library I mentioned earlier, have moved, or will shortly be moving, to Tonsley.¹¹

¹⁰ Tonsley Fact File http://www.tonsley.com/project_vision/fact_file

¹¹ Tonsley Partners http://www.tonsley.com/investors_and_partners/tonsley_partners

- Importantly, Flinders University is also a key strategic partner, investing \$120 million in a new building, with the State Government providing \$2.5 million to support the initial investment.
- Construction of this facility is underway and when complete in 2015, it will house about 2,000 students and 150 staff.¹²
- It will also house Flinders' newly established New Venture Institute to strengthen the University's enterprise culture, further supporting business and community collaborations.

¹² Flinders University Tonsley Website - <http://www.flinders.edu.au/tonsley/>

- I am confident that having some of the best and brightest Flinders University researchers and students working at Tonsley Park will help attract high-tech businesses to the redevelopment.
- Of course there are many other programs and initiatives that I could point to that are also contributing to South Australia's economic renewal.
- Many of you will be aware of the support this Government has provided to growing our health and medical research sector

- While you're here in Adelaide I'd strongly encourage you to take a look at the new SAMHRI building, which is part of the new health and medical precinct we are creating on North Terrace.
- It is a stunning building that is not only a landmark in its own right but will hopefully be the source of some landmark discovering in the field of health and medical research.
- This government is still well aware that our State's strength still remains in its rural sector and we are working hard to both encourage value-add in the agribusiness sector and promote our premium food and wine from our clean environment to major regional markets including China.

- For me it is clear that where there is economic renewal, there must be an alignment of interests from many different sectors to bring about the required change.
- Whether it's existing business coming up with new ideas, universities or entrepreneurs, this Government has taken the approach that where it can help or hasten this process, it will.
- Before I finish, would also like to take the opportunity to touch on the impact on this state and the nation of the Federal Government's shift in funding priorities as demonstrated in the latest budget.

- As bad as it is that the Commonwealth has walked away from its commitments to fund health and education we are also opposed to the reduction in funding to the Australian Research Council and the CSIRO.
- The cuts to the agencies and a suite of innovation and entrepreneurial programs, such as Commercialisation Australia makes it quite clear that the Commonwealth Government expects business to pick up more of the tab for research spending.
- Given the level of research investment by Australian businesses is below the OECD average, and that Australia has one of the lowest numbers of researchers in business enterprises among the OECD

countries, it seems counter intuitive to be lowering the incentives and increasing the cost of doing research for business.

- I understand that tomorrow you will have an opportunity to hear from Minister Christopher Pyne, the Federal Minister for Education, on the Government's higher education reform agenda.
- One area that hasn't received much attention in the conversation over student fees and funding is the increase in fees for Higher Degree by Research, or PhD students.
- PhD students are the powerhouse of new knowledge in Australia.

- Any move to increase fees and to burden this group with increased levels of debt acts as a direct disincentive to undertaking a PhD.
- Australia's Chief Scientist, Professor Ian Chubb, has often pointed out the perils of under investing in the pipeline of researchers¹³.
- While the impact may not be felt immediately, I believe the detrimental effects to our economy will be evident in the years and decades ahead.
- Australia could find it can no longer attract the attention of global investors looking for new products or better ways to manufacture, and

¹³ Chief Scientist May 2012. Health of Australian Science. page 5.

where our minerals and resources sector will become under-utilised because our technology is uncompetitive.

- In South Australia, you will find we have a vastly different attitude to the role of government in supporting research, innovation and academia.
- On that bright note, thank you again for the opportunity to open the Innovative Research Universities Senior Staff Forum.
- I hope some of the strategies the State Government is pursuing will resonate with you and inform some of the discussions you will be having during the next couple of days.