Impact of Government Agenda on Innovation and Research in ICT

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Overview

- Introduction: Australia’s position in the world
- Government Innovation Agenda
- Sustainable Research Excellence and ERA
- Role of Research Community
- Concluding Remarks
Australia’s position in the World

- Australia’s competitiveness has slipped from 5th to 18th in the World Economic Forum’s Global Competitiveness index.
- Government spending on science and innovation as a share of GDP fell by 22% since 1993-94.
- Australia spends 2% of GDP on R&D.
- Austria, Denmark, Germany, Iceland, Switzerland, Taiwan and USA spend more than 2.5%.
- Finland, Japan, Israel, South Korea and Sweden more than 3%
- China and Denmark steadily increasing spending on R&D.
  
  The government recognises that “investment in science and technology is critical to the growth of knowledge-based economies.”

- This requires a sustained and adequate investment in R&D.
The government has outlined its innovation agenda over the next decade.

It articulates its innovation priorities:

- Support high quality research
- Build a strong base of skilled researchers
- Foster industries of the future → commercialisation
- More effective dissemination of new technologies and ideas (in particular, to small and medium enterprises)
- Encourage a culture of collaboration (among uni’s & ind.)
- International collaboration in R&D
- Improve policy development and service delivery
Powering Ideas: Innovation Agenda

- The government vision over the next decade:
  - Increase the number of Australian groups performing at world-class level. How do we do it?
  - Increase international res. collaboration by Aus. Uni’s.
  - Significant increase in HDR completions
    - Doubling the number of APA’s by 2012.
    - Increasing the APA stipend from $20,427 in 2009 to $22,500 in 2010.
  - Doubling the level of collaboration between business, Universities and publicly funded research agencies
  - A 25% increase in proportion of businesses involved in innovation.
  - Continued improvement in business investment in R&D.
World-Class University Research

- $703.1M over 5 years, to increase Research capacity:
  - **Sustainable Research Excellence ($512M).**
    - Australian Competitive Grants (ACG)
    - Negotiated funding agreements (compacts)
    - Implementation of transparent costing (TC)
  - Collaborative Research Networks ($52M) to help smaller and regional universities develop research capacity by partnering with larger uni’s (‘hub and spoke’ model).
  - Joint Research Engagement replaces IGS
  - **Excellence in Research for Australia (ERA), ($37.8M)**
    - ERA will underpin University research funding to drive change and provide benchmarks for measuring excellence.
Sustainable Research Excellence (SRE)

- The main funding scheme for Univ. Research.
- It comprises 3 pools of funding
  - **Base funding.** 20% based on current RIBG scheme.
  - **Threshold 1 Pool.** 13% allocated on a pro-rata basis up to $2.5M of ACG income.
    - Universities that earn < $2.5M of ACG benefit disproportionately.
    - These uni’s are excluded from Threshold 2 funding.
  - **Threshold 2 Pool.** 67% allocated based on ACG income.
    - 50% moderated by transparent costing and compacts (TC pool).
    - 50% based on ERA performance (ERA pool).
    - In 2011 SRE, a proxy measure will be used for research performance
SRE – TC Pool Funding

- The TC pool is allocated based on ACG income, weighted with a TC rate.

- Three possible ways are being considered:
  - A fixed rate for indirect costs associated with ACG. No incentive for Universities to undertake TC reforms.
  - Specify bands of costs: High, medium and low.
  - Calculate a unique TC rate for each university. More complex and may encourage inefficiencies.
  - Compacts will be used to determine the final TC rate of each university

How should the TC results be incorporated, fixed vs variable rate? How should compacts be used?
In 2011, a nominal measure of performance is used.

ERA results will be included from 2012 onwards.

Three possible ways are being considered:

- ACG income moderated by ERA performance.
- ERA performance moderated by a volume component:
  - Quantity of research outputs
  - Number of FTE staff submitted as part of ERA evaluation
  - Number of units being evaluated (meets the minimum vol. research).

What Volume measure should be used for ERA?

How about throughput and research training?
Role of Research Community and Industry

- Monitor government policy and engage in debate:
  - Should we just simply ignore ERA and continue business as usual? Or Should we take steps to correct its deficiencies?
  - Participate in RWS (research Workforce Strategy)

- Improve Science and Technology communication

- Work collaboratively

- Provide Alternate pathways for researchers and better transition to research careers

- Better career Progression for researchers

- Career Mobility (international experience very crucial)
Concluding Remarks

- ERA and ACG are the main factors in determining research funding for Universities (SRE).

- Benchmarking based on inaccurate information is not going to be very helpful.

  ERA – we must get it right!

- How do we improve internationalisation of research? Remove government hurdles.

- How can we improve success rate in ARC & other ACG?
