The role of Australian Universities and how should that change in the future?

*The Australian Farm Institute Conference, 2013*

Richard Eckard
Productivity and public research intensity – Australia

Index 1978 = 100

Public investment as a per cent of sector GDP

Structural change in productivity growth

2.3% CAGR

0.4% CAGR

Broadacre total factor productivity (LHS)

Public R&D intensity (RHS)

Public agricultural R&D and extension investment in Australia: 1952–53 to 2006–07

Source: ABARE
• Decline in State government research and extension staff
• Increase in Uni staff
  – But from a low base

Source: ABARE
Sources of investment in rural RD&E

Decline in real terms

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Sources: ABS (2008)
Trends in RD&E

- State’s decreasing expenditure
- Private sector increasing

Proportion of research expenditure on agricultural science by the different sectors

Summary of trends in RD&E

- Increasing reliance on external investment
  - Increasing staff on ‘soft’ funds and short-term contracts
  - Reduced tenure and job security in RD&E
  - Gen Y don’t expect to stay in one job for long

- RDCs increasingly require communication and extension within funded research
  - Many larger research programs employ their own extension/communication specialists
  - Some RDCs employ their own extension network
Summary of trends in RD&E

• Public R&D investment decline
  – Now impacting on productivity growth

• Extension has seen a shift from
  • To NRM, policy and regulatory roles
  • 1:1 extension to ‘wholesaling’

• Extension increasing
  – Private consultants
  – Factory, seed, fertiliser companies
  – NGOs
University trends

- Downsizing of agricultural education in Uni and Colleges
  - Reduced agriculture student numbers
    - Response to reduced perceived opportunity
  - Reduced tenured employment thus lower retention of high quality extension professionals

Australian university Agriculture graduate completions 2001 to 2006.

Main performance evaluation criterion

- Research and Research training
  - Peer reviewed publication
  - Post graduate completions
  - Research grants*
- Teaching & Learning
- Leadership & Service
- Industry Engagement
  - But no formal recognition of extension role
*Valuing Industry Funds*

- Universities place highest value on ARC income (category 1)
- RDC income is also Cat 1
  - But not ranked as valuable

- Point of change needed in Agricultural faculties
  - RDC income should be valued = to ARC income
  - Industry funds are vital to ensure relevance
Future Options for Universities
Option 1 – current trend

• Development of more joint research centres
  – PICCC, Biosciences Centre, AWSC
  – CSIRO clusters

• Develop more industry partnerships
  – Fertiliser research
Future Options for Universities
Option 1 – current trend

• Training for extension (private and public)
  – Post Grad Certificate courses
    • e.g. Climate change
  – Non-accredited short courses
    • e.g. CFI Training
Future Options for Universities
Option 2

• TIA model
  – State RD&E absorbed into Uni
  – TIA now includes extension
    • But still largely State and RDC funded
    • State government is TIA’s biggest client
  – Variable success in other States
    • SA and WA
• Adopt USA Land grant Uni model
  – Cooperative extension service of the USDA
  – Funded by federal government

• Universities now recognise
  – Research only staff
    • Papers, grants, PhD students
  – Teaching only staff
    • Undergraduate and post graduate
    • Add extension role?
Future Options for Universities
Option 3

But

• Funding would be needed from Federal government
• Similar to research funding basis
Options to address declining investment in extension

- Increase State government funding
  - Trends suggest not
- Private sector funding
  - But more agenda-based
- RDC funded
  - Trends suggest increasing
- Role of Universities
  - USA land grant model – Federal funding
  - Adopt a TIA model – State funding
  - Current trend continuing
    - Knowledge brokering / information wholesaling
    - Provide training for extension

Universities will move if the funding is provided