The future role of government in the Australian agricultural innovation system

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Agricultural Innovation – a critical issue?

• Asian Century is an opportunity, not a given
• Innovation has lead to significant changes in Australian agriculture, but more required
• Right policy settings and innovation is required to enable Australia to meet future challenges and prospects
State of play

• Government plays a key role in partnership with industry to deliver public and private benefits

• Flat lining investment is a concern...

Real public R&D investment and research intensity in Australian agriculture, 1952-53 to 2006-07

Source: ABARES
State of play (cont)

• The proportion of R&D spent on agricultural sciences is declining, despite the accounting rules changing to include veterinary and environmental sciences.

• Rural R&D provides positive return on investment - $10.51 per dollar over 25 years.

Sectoral spend as a percentage of total spend on agricultural sciences R&D, and the total spend on agricultural sciences R&D as a percentage of the total spend on all R&D (Source: ABS, Office of the Chief Scientist)
Industry impacts

• Stalling government investment has impacted industry productivity
• Ongoing challenge for industry facing declining terms of trade

Broadacre total factor productivity and the farmer terms of trade, 1977-78 to 2010-11

Source: ABARES
Government support to agriculture – an international comparison

Producer Support Estimates as % of gross farm receipts, 2007-09 average

Source: OECD, PSE/CSE database
Real impacts

• Australian Rice growers improved water use efficiency by 60% in 10 years (1996 – 2006)

• Over the last 10 years, Australian cotton industry has reduced pesticide use by over 90%, through a combination of biotechnology and Integrated Pest Management practices.
What next?

• Blueprint for Australian Agriculture aimed at actions required for long-term success for Australian agriculture
• Innovation and Research, Development and Extension one of seven identified key
Issues
• Stagnant research and development (R&D) funding has affected productivity growth across the sector
• Extension is crucial in applying R&D outcomes
• Improved coordination could improve efficiency.

Goals
• Increase investment in R&D
• Improve access to new technologies
• Improve uptake of best practice.

Headline Strategies
• Develop business case for public and private sector investment in agriculture R&D
• Undertake policy and tax review to encourage private investment
• Increase coordination and communication on new technology and policy development
• Reinvigorate extension through building on successful private models.
What would success look like?

• Food and fibre RD&E is enjoying increased levels of real government and private investment and an increase in the share of the total RD&E spend. Due to a strong focus on the adoption of research outcomes the sector is embracing proven biotechnologies.
Thank you