OVERVIEW
Primary Industries RD&E

Rob Young & Regina Fogarty

CALC workshop Feb 2011
Industry & Investment NSW – R Sheldrake

- Primary Industries *
- Forests NSW (R&D in PI)
- Minerals and Energy
- State & Regional Development
- Tourism NSW
- Screen NSW
- Office of Science & Medical Research
- Food Authority
- Rural Assistance Authority
Primary Industries - George Davey

- Science & Research – Renata Brooks
- Industry Dev. Ag & Forestry – Regina Fogarty
- Biosecurity – Bruce Christie
- Fisheries & Compliance – Paul O’Connor
- PRIMEX – Christine Wang
- Rural Assistance Authority – Steve Griffith
Science & Research – Renata Brooks

- Productivity & Food Security – Ali Bowman
- Biosecurity - Trevor Gibson (animals)
  - Deb Hailstones (plants)
- Fisheries & Ecosystems – Steve Kennelly
- Climate & Water – Rob Young
- Research Business – Greg Stevens
- Science Strategy – Phil Wright
- 700 staff, located across NSW,
- ~15 key research centres, plus others
- Applied Science
Priority Research Issues
Industry Development
Agriculture & Forestry

Ag Production & Industry Develop.
- Horticulture
- Broadacre Cropping
- Intensive Livestock
- Extensive Livestock
- Food & Cotton
- Pastures

Resources
- Natural Resources Advisory Services

Education, Planning & Private Forestry
- College Principal
- Resource Planning & Development
- Private Forestry Programs
Extension Delivery in Practice

- Information Development and Access
- Group Facilitation/Empowerment
- Programmed Learning
- Participatory Technology Development
- Individual Consultant/Mentor
Education Delivery in Practice

- Residential College
- Short Course Development
  - mapped, accredited
  - Wide delivery
- E-Learning
- RPL
I&I NSW IDAF - Strategies

- Industry Technical Development
- Information and Knowledge provision
- Industry Business Development
- Building Industry Partnerships
- Workforce and Skill Development
- Informing Policy Development
- Advocacy & Statutory Obligations
I&I NSW IDAF - Outcomes

- Productivity & Food Security
- Water
- Climate
- Natural Resources
- Biosecurity
- Low Carbon Economy & Energy
- International Markets
- People & Community
Climate

- Climate risk management
  - Understand what is occurring
  - Understand what the projections mean & vulnerability of existing farming systems
  - Develop strategies to reduce exposure to climate risk

Provide resources to support the industry in adapting
Low Carbon Economy - carbon

- Emissions / carbon management
  - Influence and inform the policy development
  - Understand the emission profile of the sector, and what can be done to reduce it
  - Understand what the impact of policy and market responses are going to be, and develop strategies to respond
  - Support the industry in understanding of the role offsets may play such as soil carbon, and how to manage their farm to achieve this.
Importance of RD&E - Mullen

- Productivity growth in agr ~2.5% p.a. since WWII
- ~ 2% due to RD&E
- Benefit cost ratio of public investment in RD&E
  - 8:1 conservative
  - 17:1 optimistic
Investment in Agr R&D - Australia

Mullen – ABS data
National RD&E Framework

- Primary Industries Ministerial Council (PIMC) in April 2007, agreed to establish a National Framework for Primary Industries Research, Development & Extension

- Aims to improve Australia’s primary industries’ productivity, sustainability and competitiveness by facilitating improved coordination

- Ag Deans of Universities – Rick Roush - UMelb
National RD&E Framework

- 14 primary industry sector strategies
  - Beef; Dairy; Grains; Pork; Wine; Cotton; Fisheries & Aquaculture; Forests; Horticulture; Poultry; Sheep meat; Sugar; Wool; and, New & Emerging Industries

- 7 cross-industry sector strategies
  - Animal welfare; Biofuels & Bioenergy; Climate Change; Food & Nutrition; Water use in ag; Animal and Plant Biosecurity
Roles & Responsibilities

- Roles and responsibilities of parties:
  - **Major** - national leadership role
  - **Support** - undertake some research
  - **Link** - undertake little or no research

- National RD&E framework will drive allocation of future RD&E funding for Primary Industries
**Future R&D priority focus (DRAFT)**

**Key**
- **Major**: Agency will take a lead national role by providing significant R&D effort.
- **Support**: Agency will undertake R&D but other agencies will provide the major effort.
- **Link**: Agency will undertake little or no R&D, instead it will access information and resources from other agencies.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>NSW</th>
<th>Qld</th>
<th>Vic</th>
<th>SA</th>
<th>WA</th>
<th>Tas</th>
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<td><strong>Beef</strong></td>
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<td>Major (carbon)/Support</td>
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<td>Link</td>
<td>Link</td>
<td>Major (Dryland)/Support</td>
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## Cross Sector Strategies

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<tr>
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<td>Support (Major tropical pests &amp; diseases)</td>
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<tr>
<td>Animal welfare Biofuels &amp; bioenergy</td>
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Shares of Investment in Ag R&D

- Commonwealth Government: 22%
- State Governments: 39%
- Universities: 23%
- Business: 16%

Mullen – ABS data 2004-05
Co-investment Model - DPI

- Research organisation, not research funder
- Other parts of I&I NSW do fund - SRDT
  - Science Leveraging Fund – $15m/yr - centres
- Partnerships - how we operate
- 50:50 funded
- ~ $60m p.a. S&R - external
- 50 significant fund sources
  - Rural RDCs
  - CRCs
  - CMAs
  - Commonwealth gov’t (esp. climate & water)
- All research projects require external $
Partnerships

- RDCs and primary industry bodies
- CRCs
- ARC Centres of Excellence
- Others – eg CCRSPI, PIARN/NCCARF
- University collaborations
  - Formal
    - SCU – CALC
    - UNE – PIIC
    - CSU – Graham Centre, Nat Wine & Grape
    - Newcastle – co-invest at Ourimbah
  - Informal – many - on project basis
Advantages of Collaboration

- Additional / complementary expertise
  - research & extension
- Additional resources - eg specialist facilities, equip
- Access to different funding buckets
- Different thinking
- Access to PhDs stipends, PhD supervisors, etc
- Teaching opportunities for staff
- Adjunct positions
- Research Quantum – RQ no longer a driver
- Focus on legitimate collaborations with research input from both parties