# **GRAINS INDUSTRY**







# Capacity Audit 2012

## NATIONAL RESEARCH, DEVELOPMENT AND EXTENSION STRATEGY

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# **Grains Industry Capacity Audit**

- What is the Grains Industry National RD&E Strategy?
- Audit objectives, data and contributors
- Snapshot of 2011/12 capacity
- Trends since 2007/08
- Future priorities



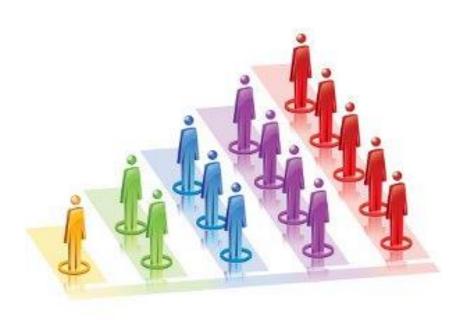
# Grain Industry National RD&E Strategy

- Avoid unnecessary duplication and fragmentation
- Improved coordination, collaboration and priority setting
- Increased operational efficiencies
- Research, development and extension:
  - Research National
  - Development Regional
  - Extension Local



# **Objectives and contributors**

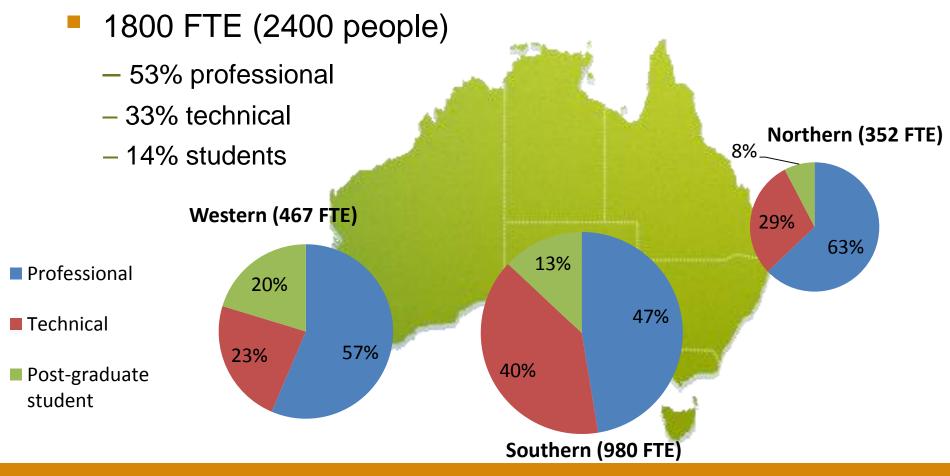
- Why do an audit?
- Data
- Contributors
- Considerations



41

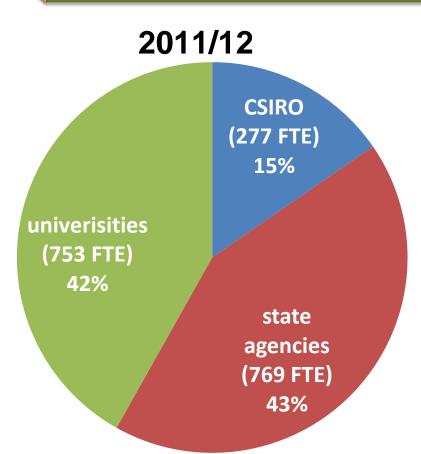
# National human resource capacity

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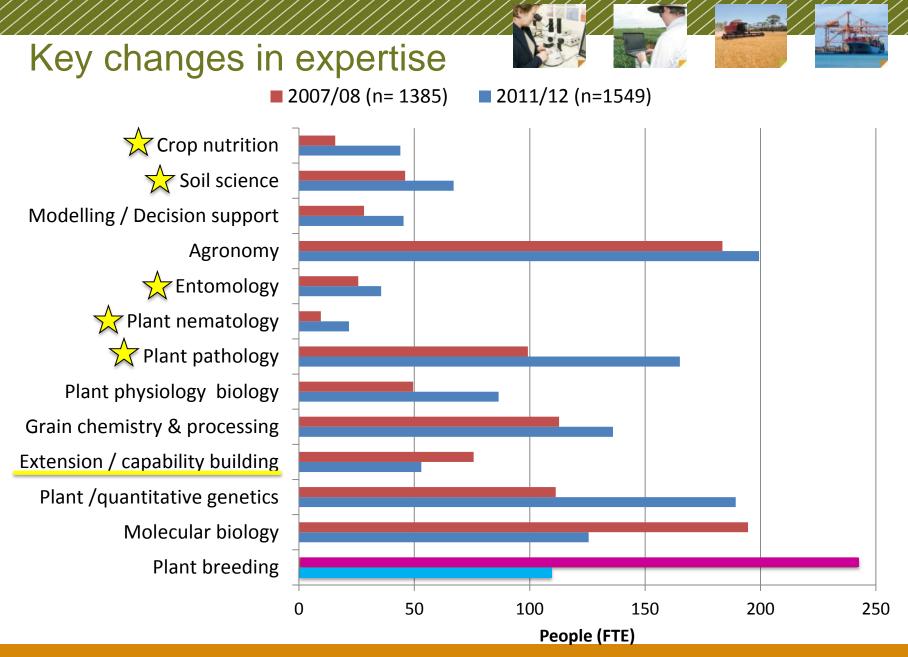


# Human capacity (FTE) in organisations

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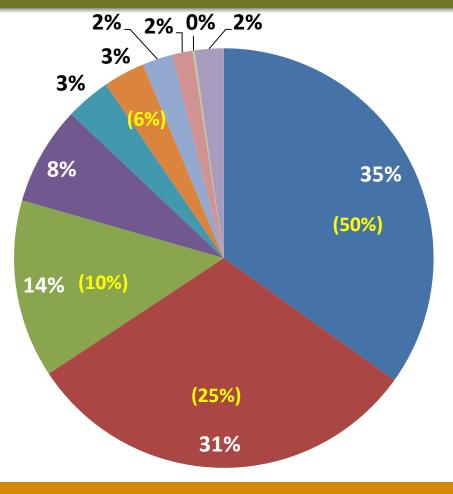








# **Expertise (Total 1799 FTE)**



- variety development
- farming systems
- plant protection
- plant physiology/biology
- grain processing and food
- extension
- management
- agricultural economics
- market research and intelligence

#### other

# Case study: DAFWA

■ 2007/08 ■ 2011/12

C-11

**Plant breeding** field technician **Bioinformatics / Biometrics** Agricultural economics Major: Farm business productivity Modelling / Decision support Plant pathology, entomology and nematology Major: Disease management Molecular biology/genetics (modelling and diagnostics) Plant physiology /plant biology Major: cereal pre-breedingabiotic and biotic stresses Soil science and crop nutrition Agronomy Extension / capability building Management, policy and regulation 0 10 20 30 40 50 60 70 Human resource capacity (FTE)

# Student capacity (post-graduate by research)

- 249 FTE 2011/12 (143 FTE in 2007/08)
- Most popular areas of study:
  - Plant physiology/biology (53 FTE)
  - Crop nutrition (20 FTE)
  - Soil science (19 FTE)
  - Weed management/science (18 FTE)
  - Plant/quantitative genetics (14 FTE)



# Student capacity (post-graduate by research)

#### Western region (29 %)

- Agricultural economics
- Modelling/decision support
- Environmental/resource science

**Northern region (11%)** 

Grain processing and food technology

#### Southern region (51%)

241

- Agricultural engineering
- Bioinformatics/biometrics
- Entomology

# **Succession planning**

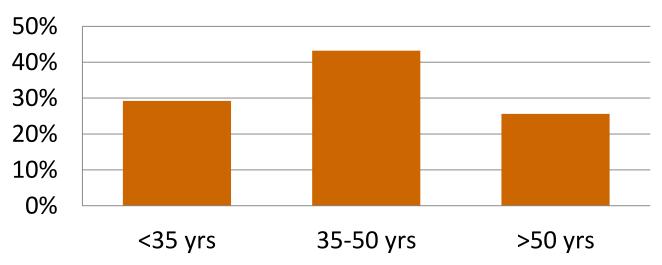
- 390 positions
  - Plant pathology (40)
  - Soil science (38)
  - Agronomy (35)
  - Plant physiology/biology (30)
  - Grain processing/ food technology (21)



# Gender and age

- No change between audits
- 64 per cent male : 36 per cent female

## Age range of people



# Infrastructure

- Queensland Alliance for Agriculture and Food Innovation, Brisbane, Qld
- I.A. Watson Grains Research Centre, Narrabri, NSW
- AgriBio, Bundoora, Vic
- Managed environment and GM crop evaluation facilities

#### Others in planning:

- Australian Export Grains Innovation Centre, Perth, WA
- Australian Grains Gene Bank, Horsham, Vic





# **Future priorities**

- Understanding private sector capacity
- Partnerships and collaboration between public-private sector
- Capacity building to address shortages in grains industry R&D expertise
- More effective use of national infrastructure including commercial sector
- Creating systems to ensure more active management of **national** RD&E

#### **Implementation Committee**

# Provide ongoing oversight and coordination

Bob Belford (CUT) Alison Bowman, NSWDPI John Manners, CSIRO Geoff Honey, GTA John Harvey, GRDC Mike Wilkinson, UA Ray Marshall, GPA Pauline Mooney, SARDI

Des Naughton, DAFF Wayne Newton, GPA Dave Callachor, NARG Mark Sutherland USQ Mark Sweetingham, DAFWA Andrew Weidemann, GPA Ragini Wheatcroft, DEPI Vic Gary Fullelove, DAFF QId

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