

Strategic Plan 2011-2016

Research for Mixed Farming Systems

***Creating knowledge and capacity to
address the challenges of food security,
biosecurity and climate change***

Vision – to be the Australian centre of excellence (national ‘go to’ centre or hub) for temperate mixed farming systems addressing the challenges of food security, biosecurity and adaptation to climate change.

Mission – to create valued knowledge and capacity, through multi-disciplinary and integrated research in key priority areas, and to deliver profitable and sustainable farming systems for the future.

Reasons for Collaboration

- *Excellent, efficient and seamless RD&E*
- *Strong industry links, relevance and solutions*
- *Leadership, coordination and collaboration with partners*
- *Capacity, training and skills development*
- *Shared facilities and focus*

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Abbreviations

ACIAR	Australian Centre for International Agricultural Research
ARC	Australian Research Council
AWI	Australian Wool Innovation
BOM	Board of Management
CAPPE	Centre for Applied Philosophy and Public Ethics
CiH	Centre for Inland Health
CMA	Catchment Management Authority
CRC	Cooperative Research Centre
CSU	Charles Sturt University
DAFF	Department of Agriculture, Fisheries & Forestry
ERA	Excellence in Research Australia
FTE	Full-time equivalent
GRDC	Grains Research & Development Corporation
IAC	Industry Advisory Committee
ILWS	Institute for Land, Water & Society
KPI	Key Performance Indicator
MERI	Monitor, evaluate, report and improve
MLA	Meat & Livestock Australia
MOU	Memorandum of Understanding
NaLSH	National Life Sciences Hub
NRM	Natural resource management
NSW DPI	NSW Department of Primary Industries
PICSE	Primary Industry Centre for Science Education
PISC	Primary Industries Standing Committee
RCF	Research Centre Fellow
RD&E	Research, development and extension
RDC	Research development corporation
RHD	Research Higher Degree
RIRDC	Rural Industries Research & Development Corporation
RLO	Research Liaison Officer
RMC	Research Management Committee
RMCG	RMCG Consultants for Business, Communities & Environment
the Centre	the EH Graham Centre for Agricultural Innovation
WWAI	Wagga Wagga Agricultural Institute

Executive Summary

The grain and livestock industries of south-eastern Australia are significant contributors to the economy and play an important role in natural resource management. Growth and performance of the industries is underpinned by research, development and extension (RD&E). Research innovation is required to provide the industry with a diverse range of commodities, to value-add to the supply chain, and to address challenges such as high input costs, adapting to climate change, food security and biosecurity. The aim is to increase the productivity of existing and new grain and livestock industries, reduce the risk of natural resource degradation, and build capacity and the skills base.

The EH Graham Centre for Agricultural Innovation (“the Centre”) was established in 2005 as a research alliance between Charles Sturt University (CSU) and the NSW Department of Primary Industries (NSW DPI).

Vision – *to be the Australian centre of excellence (national ‘go to’ centre or hub) for temperate mixed farming systems addressing the challenges of food security, biosecurity and adaptation to climate change.*

Mission – *to create valued knowledge and capacity, through multi-disciplinary and integrated research in key priority areas, and to deliver profitable and sustainable farming systems for the future.*

Reasons for Collaboration

- *Excellent, efficient and seamless RD&E*
- *Strong industry links, relevance and solutions*
- *Leadership, coordination and collaboration with partners*
- *Capacity, training and skills development*
- *Shared facilities and focus*

Improved collaboration between CSU and NSW DPI aims to provide a better RD&E product and investment proposition for all stakeholders through first class research, graduate training and greater impacts on industry. A set of strategies and activities for the next five years has been developed based on the success achieved in the start-up phase (2005-10) following an extensive consultative process, reviews and strategic planning (desktop analysis, interviews, Program Logic and workshop). This will assist the Centre to achieve the desired outcomes for the future.

The **Strategic Plan 2011-16** focuses on eight key strategic areas and outcomes to consolidate and expand the Centre during the next five years (Table 1), while the **Operational Plan 2011-12** identifies actions and activities to be undertaken in the next 12 months. This includes identifying two or three priority knowledge areas; developing strong partnerships with farmer groups; reviewing and streamlining membership based on performance; elevating the Centre profile by improved communication and industry links; developing a Monitor, Evaluate, Report and Improve (MERI) plan, to determine the success of the Centre; and streamlining administrative processes.

The key strengths of the Centre are: its strategic location in the heart of the Murray-Darling Basin, close proximity to industry partners and opportunity to develop strong partnerships with farmer groups; the increasing capacity to undertake research based on a diverse skills-base of the scientists with the potential to develop cohesive multi-disciplinary teams; the expanding infrastructure; and the commitment of CSU and NSW DPI to an enduring alliance to address key industry issues.

The progress towards useful outcomes for industry and the broader community will involve a wide range of stakeholders to identify research needs, build collaborative teams, develop research plans, reach milestones, and deliver research outcomes to end users.

Table 1. Key strategic areas and outcomes of the Strategic Plan 2011-2016

Strategic Area	Outcomes
1. Governance and Management	<ul style="list-style-type: none"> ▪ Clearly defined purpose, strategic direction and roles and responsibilities ▪ A clear focus on 2-3 knowledge areas in mixed farming systems ▪ Governance which provides strategic direction and strategic guidance
2. Collaboration	<ul style="list-style-type: none"> ▪ Collaboration between partners which creates synergies ▪ Responsive relationship between industry and knowledge providers
3. Process	<ul style="list-style-type: none"> ▪ Clear process for determining priority research activities ▪ Understanding of research capacity and knowledge needs
4. People	<ul style="list-style-type: none"> ▪ Attraction of quality people in specific knowledge areas ▪ Development of multi-disciplinary, high performing teams that are self sustaining
5. Identity	<ul style="list-style-type: none"> ▪ Recognised as the “pre-eminent” centre for key knowledge areas ▪ Reputation for excellence in research and knowledge generation
6. Communication	<ul style="list-style-type: none"> ▪ Internal communication ensures participants want to participate/contribute ▪ External communication promotes research outputs and outcomes
7. Monitoring and Evaluation	<ul style="list-style-type: none"> ▪ Determination of measures that provide assessment of success for multiple investors ▪ Evaluation of activities and continual improvement
8. Mixed Farming Systems Knowledge	<ul style="list-style-type: none"> ▪ Excellence in science and generation of valued knowledge in mixed farming systems



1 Background

The Centre is a research partnership between Charles Sturt University (CSU) and the NSW Department of Primary Industries (NSW DPI) which was established in 2005 with a view to providing a more efficient research, development and extension (RD&E) model. This provides additional value to the research capacity and outcomes to industry through collaboration, synergies and lower transactional costs. The start-up phase (2005-10) provided a strong platform for future growth.

Reasons for collaboration

- Increased excellence and quantity of research, knowledge generation and impacts;
- Strong focus, partnerships with industry and identification of needs;
- Build capacity (people and facilities)
- Shared facilities, critical mass of scientists and development of multi-disciplinary teams;
- Greater access to additional research funds;
- Improved undergraduate and post-graduate training;
- Increased communication to stakeholders;
- Expanded international links;
- Enhanced student supervision.

Operating environment

The operating environment for agricultural RD&E has changed dramatically over the past decade. There has been a decline in funding, particularly at State level, and a clear recognition that there is a need to consolidate resources in RD&E at Federal and State levels. Of particular relevance to the Centre have been issues related to:

- The Excellence in Research Australia (ERA) process managed by the Australian Research Council (ARC);
- The development of the National RD&E Framework initiated by the Primary Industries Standing Committee (PISC) agencies, focusing on national research, regional development and local extension;
- The Productivity Commission review of rural research and development, focusing particularly on the public and private benefits of agricultural RD&E;
- Increasing focus on broader public good issues including climate change, food security, water allocation and natural resource management.

Key achievements 2005-2010

Performance against key indicators

The key performance indicators (KPIs) are determined by the Board of Management (BOM) with advice from the Industry Advisory Committee (IAC). The aim is to quantify the output and success of the Centre.

The major KPIs are grant income, publications and Research Higher Degree (RHD) students. The performance against these indicators is described in Table 2. The publication of papers is a measure that has been tracking well above the target and the quality is high. In the 2010 ERA process (based on publications and research income), CSU achieved a rating of “above world standard” in three Fields of Research relevant to the Centre – *Crop and Pasture Sciences, Analytical Chemistry and Environmental Management* – and a rating of “at world standard” in *Plant Biology, Agricultural and Veterinary Sciences, Biological Sciences, Environmental Sciences and Chemical Sciences*. The large increase in the number of RHD students reflects an important increase in capacity.

Table 2. Performance against key indicators 2005-10

Key Performance Indicators	2005	2006	2007	2008	2009	2010
Total income from grants (\$M) (Target)	1.6 -	2.5 (1.9)	1.9 (2.2)	2.2 (2.5)	3.3 (2.8)	3.0 (3.1)
Publications in scientific journals or refereed conferences/workshops (Target)	28 -	46 (34)	47 (39)	136 (45)	187 (50)	134 (150)
Research Higher Degree students enrolled (Target)	20 -	36 (24)	44 (28)	54 (32)	61 (36)	66 (64)
Research Higher Degree student completions	4	3	8	4	11	5

A measure of the impact of the research on agriculture is required and this is under development.



The first Annual Field Day held in September 2010 at the new field site, Wagga Wagga.

[Photo: Sharon Kiss]

Involvement in national delivery of RD&E and focus

The PISC Grains Industry RD&E Strategy has identified the Centre as a Major Regional Node for the mixed farming systems of NSW Central Zone and the NSW-Victorian Slopes.

Establishment of the National Life Sciences Hub (NaLSH)

CSU received more than \$40M from the Federal Government in 2010 to construct a world-class, integrated life-sciences hub at Wagga Wagga for research and teaching to address food security and biosecurity.

Due for completion in mid 2012, this will add to the existing science facilities. The Centre played an important role in gaining this important infrastructure.



National Life Sciences Hub

[Photo: Toni Nugent]

Funding for new initiatives

The Centre provided seed funding to members for over 40 projects under its New Initiative Grants Scheme. Approximately half of these projects are still in progress. Several of the new initiatives subsequently resulted in funding from external sources, as shown in Table 3.

Table 3. Examples of New Initiative Grants 2005-10 leading to new research projects

New Initiative Grant	Chief Investigator	External Funding Source
Collection, isolation and pathogenicity studies of insect-pathogenic fungi for the development of biological pesticides	Professor Gavin Ash	GRDC
Fingerprinting the soil metagenome	Professor Gavin Ash	ARC Discovery
Quantifying the effects of high soil manganese on canola yield and evaluating the concept of canola "plant vigour"	Dr Mark Conyers	GRDC
Factors affecting livestock semen quality and fertility	Professor Peter Chenoweth	Pork CRC
Pathogen movement in wild pigeons of Papua New Guinea	Dr Shane Raidal	DAFF
Improving the airborne mapping of soil moisture	Dr Remy Dehaan	RIRDC
Improving the efficiency of livestock production: manipulation of sex ratio of lambs by altering omega-3 intake of ewes	Dr Edward Clayton	MLA

Completed projects

The Centre administered over \$14M of project income in its start-up phase. Some of the major projects completed during this period are listed in Table 4.

Table 4. Major research projects 2005-10

Project	Chief Investigator	Funding Body	Value
Improving dairy production in Pakistan through improved extension services	Professor Peter Wynn	ACIAR	\$1,197,724
The contribution of subsoil constraints to canola yield decline	Dr Mark Conyers	GRDC	\$1,051,295
Evergraze III - Profitable Animal Production from Perennials	Dr Michael Friend	FFICRC	\$1,011,213
Sustainable development of grasslands in western China	Professor David Kemp	ACIAR	\$1,299,932
Eastern Australia lupin breeding	Dr David Lockett	GRDC	\$829,467
Integrated weed management in Southern NSW	Dr Hanwen Wu	GRDC	\$360,000
Innovative Management of Silverleaf Nightshade and Prairie Ground Cherry - Development of natural herbicides for sustainable agriculture	Dr Hanwen Wu	MLA	\$513,358
Improving understanding & management of rice pathogens in Cambodia	Professor Gavin Ash	ACIAR	\$452,000
Discovery of novel compounds as leads for natural herbicides	Professor Jim Pratley	GRDC	\$451,065
Integrated Pest Management for Finschhafen Disorder of Oil Palm in PNG	Professor Geoff Gurr	ACIAR	\$399,941
Management of Annual Ryegrass using deleterious Rhizobacteria	Professor Gavin Ash	GRDC	\$384,668

Increasing profile and outreach

The Centre is increasingly recognised as an important agricultural research centre, providing a regional and applied focus. This recognition is demonstrated by the success of the Centre's quarterly newsletter *the Innovator*, website monitoring statistics, the initiation and success of the new Monograph Series (No1. *Stubble Management*), a new 15 ha field site, strong attendance at annual events such as the Annual Field Day, the Beef and Sheep Field Days and the Agricultural Enrichment Day (aimed at late secondary school students), and establishment of a Primary Industry Centre for Science Education (PICSE) node at CSU in Wagga Wagga.

Improving performance in international research

Funding for international research contributes to the reputation of the Centre and increases the impact of research findings. The Centre has received significantly increased funding from the Australian Centre for International Research (ACIAR) in South-East Asia.



Research in China

[Photo: Geoff Gurr]

Increased investment and commitment by CSU

A 'shop-front' for the Centre will be provided by refurbishment in a prominent location within the NSW DPI buildings at Wagga Wagga. This will be funded by CSU and is due to be completed in 2012.

Developing links with CSU Research Centres

In conjunction with the CSU Institute for Land Water and Society (ILWS), research funding has been received from the Murrumbidgee CMA for a Farm Focus Wetland Study. With the Centre for Inland Health (CiH), support has been received for a full-time position, funded by the Office of Environment & Heritage, working on air quality in relation to stubble burning. With the Centre for Applied Philosophy and Public Ethics (CAPPE), planning is well advanced and a grant application is in preparation on animal welfare issues relating to the live meat trade of sheep and beef for the whole supply chain from paddock to plate.

2 Research strengths: focus and industry needs, location, skills, infrastructure and partnerships

The key strengths of the Centre are: its strategic location in the heart of the Murray Darling Basin, close proximity to industry partners and opportunity to develop strong partnerships with farmer groups; the increasing capacity to undertake research based on a diverse skills-base of the scientists with the potential to develop cohesive multi-disciplinary teams; the expanding infrastructure; and the commitment of CSU and NSW DPI to an enduring alliance to address key industry issues.

Focus and industry needs

The key influences on profitable, productive and sustainable mixed farming systems include: soil degradation; declining total factor productivity growth; climate change (adaptation, carbon storage, greenhouse gas emissions); rising cost of resources (fuel, water, fertilisers, pesticides, labour); spread and impacts of weeds, diseases and pests; labour and skills shortage; reliable feedbase; costs of herd rebuilding following drought; animal welfare; and food safety issues and changing consumer preferences and markets.

The following criteria were used to determine the Centre's focus areas:

- Competitive advantage;
- Relevant to RDCs;
- Relevant to region;
- Committed researchers in the area;
- Chance of some impact;
- Points to be gained by covering all the mixed farming systems issues that might crop up.

The initial research priorities were determined through a consultative process in 2005-06 with key stakeholders including farmer groups, advisers, research development corporations (RDCs) and the State Government and included:

- Stubble & conservation cropping;
- Climate change adaptation and healthy soils;
- Pastures and forages;
- Weed and pest management; and
- Product quality and safety.

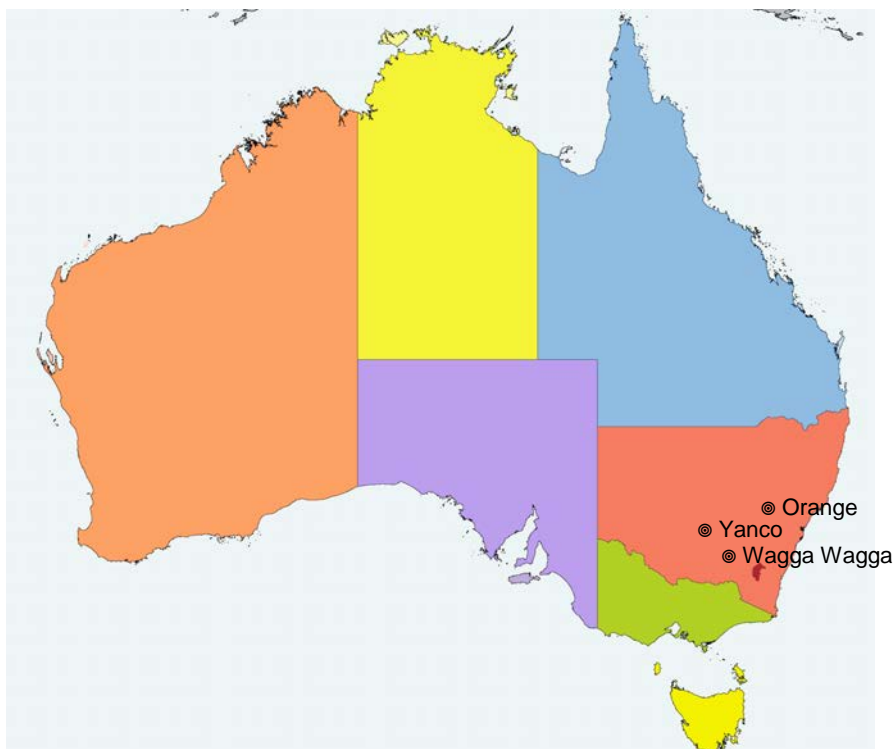
It is acknowledged the future focus will be largely influenced by both the industry priorities and the Centre's research capacity. The above priorities will continue to be important activities for the Centre, however, the particular focus for the next three years will be on:

- Break crops, e.g. canola, pulses; and
- Animal (sheep and beef) feedbase impacts on ruminant nutrition, reproduction and health.

Location

The Centre is located in the Murray Darling Basin, with dryland and irrigated mixed farming areas and the permanent pasture agricultural systems of south-eastern Australia. The annual rainfall ranges from less than 350 millimetres to more than 650 millimetres. The principal grain industries are wheat, barley, oats and triticale, as well as oilseeds (mainly canola) and pulses (mainly lupins and peas). Livestock industries are primarily sheep and cattle. The balance of cropping/livestock enterprises on farm varies. The irrigated systems were previously dominated by rice but water shortages are causing significant changes in these systems. Cotton production has increased significantly in the last ten years.

Figure 1. The Centre is strategically located in the heart of the Murray Darling Basin



Skills

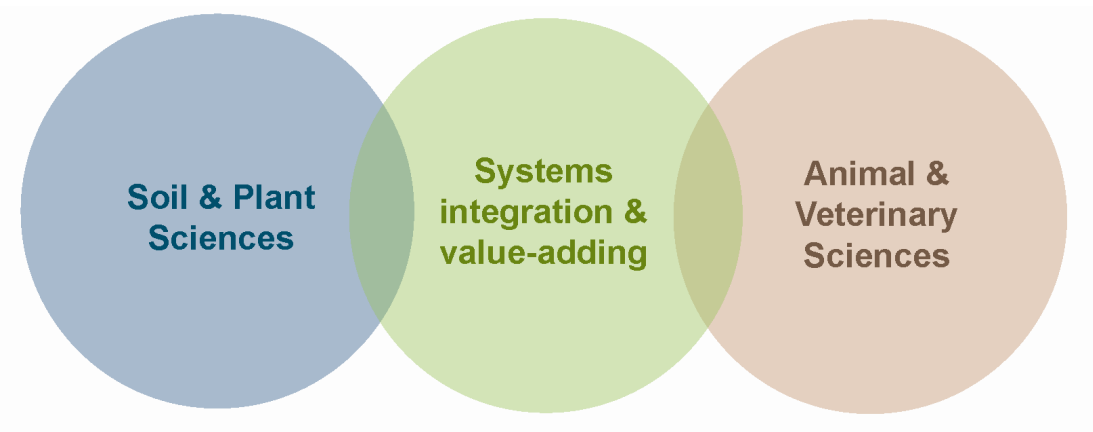
Agricultural research at CSU and NSW DPI was already well established in 2005 with strengths in soils, crop and pasture agronomy and product quality. There has been an expansion of CSU capacity in animal and veterinary sciences in the last five years. Currently the Centre has over 100 members and more than 50 Research Higher Degree (RHD) students with skills across a broad range of scientific disciplines. Members and students are from three Schools within CSU (School of the Agricultural & Wine Sciences, School of Animal & Veterinary Sciences and School of Biomedical Sciences) together with NSW DPI staff at Wagga Wagga and Yanco. A small number of retired staff hold adjunct appointments at CSU and remain involved in Centre activities. The Centre provides support for members and students via travel grants, seed funding, etc.

The objective is to develop two types of research teams: (a) scientific discipline teams, and (b) multi-disciplinary and integrated teams to address industry problems. The discipline teams must address scientific excellence and ERA, whilst the multi-disciplinary teams address industry needs.

- Soil and plant sciences;
- Animal and veterinary sciences; and
- Systems integration and value adding.

The systems integration relies on building the multi-disciplinary teams shown in Figure 2.

Figure 2. Systems integration using multi-disciplinary teams to address complex industry problems



Infrastructure

The facilities at the three sites (Wagga Wagga, Yanco and Orange) are currently receiving a significant increase in capacity through the construction of NaLSH, as mentioned previously. This will underpin the more strategic research capacity. The broad range of facilities required to undertake field, controlled-environment and laboratory research are available.



Infrastructure and research facilities at CSU and NSW DPI

[Photos: Sharon Kiss and Toni Nugent]

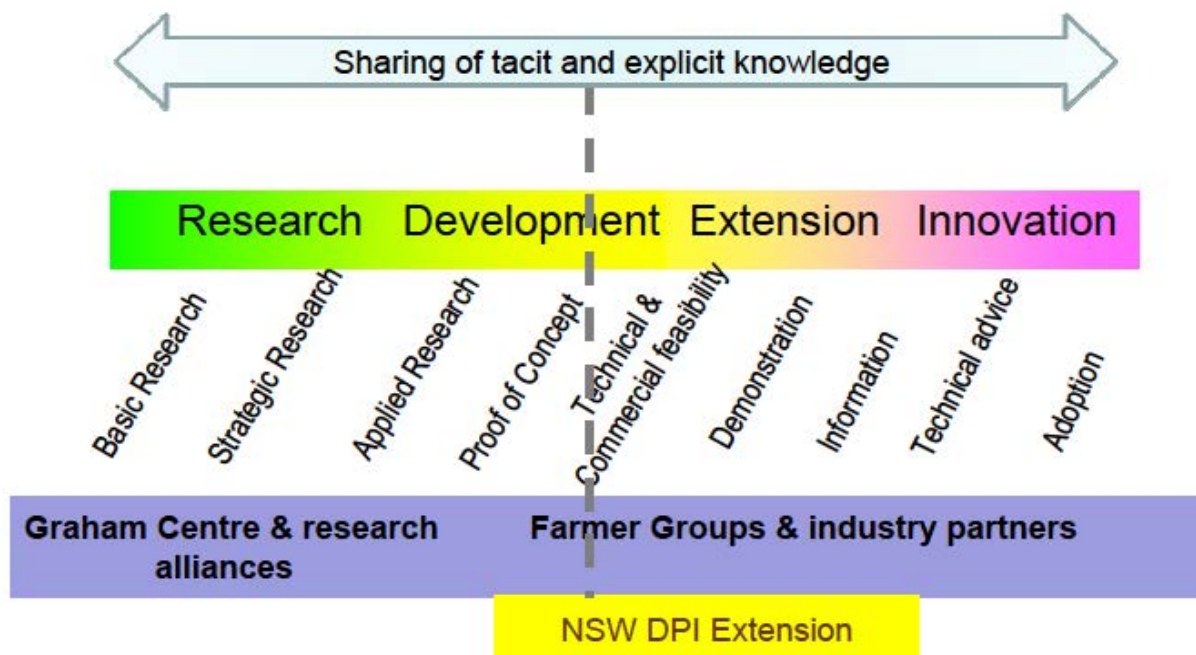
Partnerships, multi-disciplinary teams and project development

The highest priority is to develop strong partnerships with relevant farmer groups and this involves identification of their needs, a joint vision, and definition of roles and responsibilities. Preliminary discussions in 2011 and planning with FarmLink, Holbrook Landcare Network and the Irrigated Research and Extension Committee, indicate considerable enthusiasm for this process and the development of Memorandums of Understanding (MOU) that clearly define the extent of the partnerships. It is anticipated that the relationships with these and other groups will vary depending on their needs and capacity. These partnerships are critical for the two-way information flow between researchers and farmers for determining research priorities, project development and delivering new knowledge to users (Figure 3).

The multi-disciplinary research teams will be developed with the farmer groups and will be involved in problem and needs identification, priority setting, actions required, resources needed, milestones and outputs, and benchmarking outcomes and impacts.

Research collaboration will be developed with other organisations, as required, based on skills or equipment needs from an extensive network of other research providers from a range of public and private sector institutions including universities, State and Commonwealth Government departments, CSIRO and contract research organisations.

Figure 3. The role of the Graham Centre in the research, development and extension continuum



International

The objective is to develop strong international links in key areas. Currently, a number of international projects are in progress in a range of countries including China, India, Pakistan, Cambodia, Laos, Vietnam and Papua New Guinea. International activities will continue to expand a high priority.

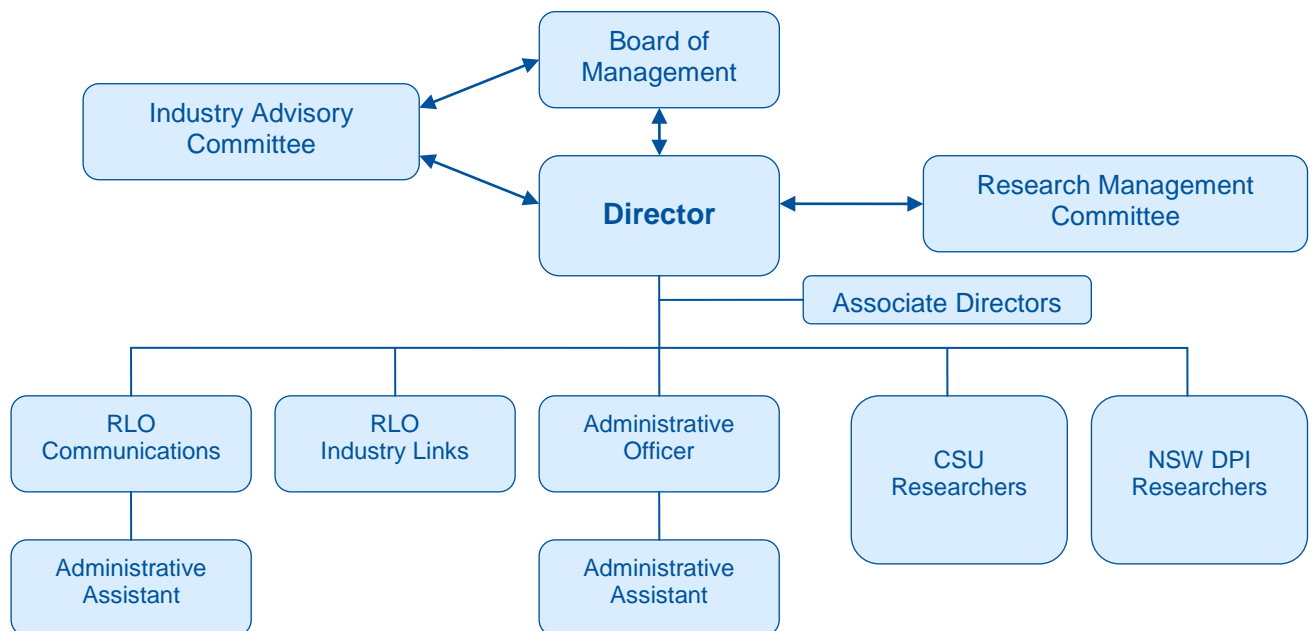
3 Governance, administration, communication and industry links

An organisational chart of the governance structure is shown in Figure 4. The Centre is governed by the BOM, comprising two executive representatives from each partner organisation. The BOM meets three times a year and is responsible for formulating policy and overseeing governance and performance. An IAC, comprising independent industry representatives, meets twice a year and provides advice on research priorities and stakeholder engagement and promotes research outcomes. The Centre also has a Research Management Committee (RMC) comprising the Director and staff representatives from both partner organisations. The Terms of Reference of the BOM, IAC and RMC are listed in Appendix 1. The RMC meets monthly and is responsible for resource allocation, achieving research priorities, developing research direction, encouraging active participation of staff and stakeholders and promoting research outcomes.

The Centre is managed by a full-time Director (currently Professor Deirdre Lemerle) whose position is jointly funded by CSU and NSW DPI and who oversees and implements the strategic direction and day-to-day operations of the Centre. Associate Directors from CSU and NSW DPI hold nominal positions to assist the Director as required. A small administrative unit (2.0 FTE) supports the Centre. Both partner organisations provide some administrative support funding for the Centre.

The Director is assisted by two part-time (total 1.5 FTE) Research Liaison Officers (RLOs) – Toni Nugent (Communications) and Helen Burns (Industry Links). Their objective is to elevate the profile of the Centre, improve internal and external communication, and develop strong industry links to ensure two-way information flow.

Figure 4. Organisational chart



4 Reviews and measures of success in research

Reviews and summary of recommendations

The Strategic and Operational Plans incorporate the recommendations of the Review of CSU Research Centres in July 2011 and a review and strategic planning process undertaken by RMCG Consultants completed in February 2011 (desktop analysis, interviews, Program Logic and a workshop). Both reviews relied on independent input from stakeholders and resulted in a number of recommendations for improved performance of the Centre during the next five years.

Subsequent consultation and discussions with the BOM, IAC, GRDC and MLA, NSW DPI senior managers and Centre Members was undertaken during 2011.

Four criteria have been identified which will determine the success of the Centre in the next three to five years. These are shown in Table 5.

Table 5. Criteria for assessing the success of the Centre

Criteria	Measure of Success
1. Profile	The Centre is recognised as the “pre-eminent” centre for two to three subjects with acknowledged teams working on issues to generate knowledge to solve identified problems
2. Quality and quantity	The Centre has a reputation for excellent science and generation of valued knowledge in mixed farming systems and a brand that carries the identity and reputation.
3. Training	The Centre provides well trained and innovative people who are sought after by industry and the community.
4. Collaboration and impact	The Centre has an established, responsive relationship between industry and science and provides a clear pathway for RD&E with measurable outputs, outcomes and impacts.



Minister for Primary Industries, the Hon. Katrina Hodgkinson, MP (centre), inspects new facilities and holds discussions with research higher degree students, October 2011.

[Photo: Toni Nugent]

5 Strategic Plan 2011-16

Our commitment values

The Centre is confident, forward-looking and committed to excellence, integrity and sustainability in research. The Centre aims to demonstrate the values in all its activities and this enables it to meet commitments, form strong partnerships and achieve the mission.

- Collaborative – work together to achieve mutual goals and share information
- Agile – respond to a changing environment and constantly refine and adapt to differing needs
- Reliable partner – consistent, open, trustworthy and dependent
- Inclusive – embrace and respect different views, cultural backgrounds and abilities
- Student support – care for and nurture the student experience
- Innovative and creative – new and better ways to achieve reasonable goals
- Committed – meeting the needs of stakeholders
- Performance-driven culture – to be the best

About the Plan

The **Strategic Plan** is divided into eight Strategic Areas:

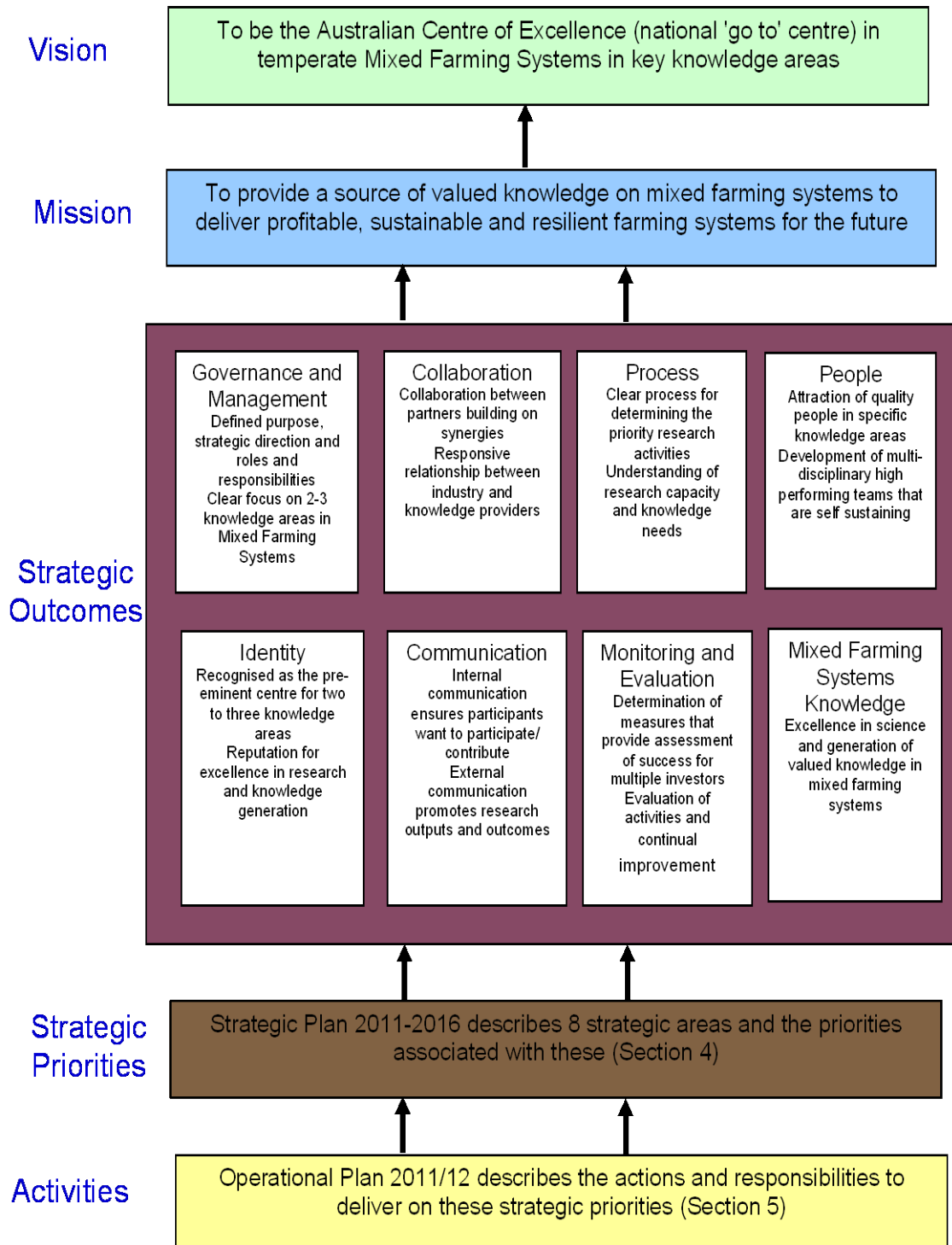
1. Governance and Management
2. Collaboration
3. Process
4. People
5. Identity
6. Communication
7. Monitoring and Evaluation
8. Mixed Farming Systems Knowledge

For each of these Strategic Areas, there are:

- Outcomes
- Priorities and Plan

Program Logic

Figure 5. Program Logic for the Graham Centre



Strategic Area 1: Governance and Management

Outcomes

- A clearly defined purpose, strategic direction and roles and responsibilities
- A clear focus on 2-3 knowledge areas in Mixed Farming Systems
- Governance which provides strategic direction and strategic guidance

Priorities and Plan

- Provide a clear long-term commitment to the Centre with equitable contributions of finance and people through a long-term strategy
- Develop a governance structure that provides clear roles, responsibilities and accountability
- Provide a working environment with benefits to participants including:
 - administration which improves performance
 - leadership
 - facilitation of team work
 - representation to key investors
- Harmonisation of cultures and administration

Strategic Area 2: Collaboration

Outcomes

- Collaboration between partners which creates synergies
- Responsive relationship between industry and knowledge providers
- Increased international links and collaboration

Priorities and Plan

- Provide resources to support collaboration between groups
- Facilitate a culture of collaboration where the benefits are greater than organisations working independently
- Consult and partner with industry to define issues, develop solutions to current problems and be responsive to future issues
- Support development of international collaboration

Strategic Area 3: Process

Outcomes

- Clear process for determining the priority research activities
- Understanding of research capacity and knowledge needs

Priorities and Plan

- Describe goals and directions and the RD&E activities that contribute to these
- Determine and support research/knowledge focus areas on which reputation can be built
- Review activities to ensure alignment with RD&E priorities, ERA process and other external investors

Strategic Area 4: People

Outcomes

- Attraction of quality people in specific knowledge areas
- Development of multi-disciplinary, high performing teams that are self-sustaining

Priorities and Plan

- Describe the value proposition for attracting quality staff including facilities, resources and individuals with reputation
- Develop a process to attract the best people in identified research/knowledge focus areas
- Facilitate the establishment and building of high performing teams

Strategic Area 5: Identity

Outcomes

- Recognised as the “pre-eminent” Centre for 2-3 knowledge areas
- Reputation for excellence in research and knowledge generation
- Provides well trained, innovative people
- Established a responsive relationship between industry and science and provides a clear pathway for research, development, extension and adoption

Priorities and Plan

- Define and describe the Centre identity and brand including what activities and/or researchers are included
- Promote activities undertaken and the reputation of individuals and groups within
- Invest resources in building a reputation on 2-3 specific knowledge areas and develop a critical mass and expertise
- Consider the value of a physical location to the identity of the Centre

Strategic Area 6: Communication

Outcomes

- Internal communication ensures participants want to participate/contribute
- External communication promotes research outputs and outcomes
- Two-way information transfer between researchers, farmers and advisers to wholesale information to end-users, identify research needs and develop knowledge stocks that contribute to build stakeholder capacity

Priorities and Plan

- Develop a public relations strategy that focuses both internally and externally and is tailored for different stakeholders including:
 - partner organisations (CSU and NSW DPI)
 - industry (RDCs, farmer groups, consultants)
- Communicate with stakeholders focusing on:
 - identity and role of the Centre (place in RD&E continuum, capacity, activities)
 - promotion of activities and research outputs
 - promotion of the reputation of individuals and groups
 - creating a desire for researchers to want to be a part of the Centre
- Engage with the agricultural industry (agribusiness/farmers) to develop solutions to current and future issues

Strategic Area 7: Monitoring and Evaluation

Outcomes

- Demonstrated success of the Centre
- Determination of measures that provide assessment of success for multiple investors
- Evaluation of activities and continual improvement

Priorities and Plan

- Develop a MERI plan that will determine the success of the Centre
- Develop Key Performance Indicators (KPIs) focused on research quality and industry needs that meet the needs of multiple investors
- Enhance capacity of members to link with industry and use MERI

Strategic Area 8: Mixed Farming Systems Knowledge

Outcomes

- Excellence in science and generation of valued knowledge in mixed farming systems

Priorities and Plan

- Develop agreed knowledge focus areas as “lighthouse” programs with a degree of autonomy for champions/leaders
- Support and resource researchers in developing teams and identifying investment opportunities
- Develop a plan for attracting investment from different funding sources, recognising differing expectations and requirements of investor

Appendix 1. Terms of Reference – Governance Committees

1. Board of Management

- 1.1 The Parties will establish a Board of Management to formulate policy, provide guidance to the Director and monitor and evaluate performance of the Centre.
- 1.2 The Board of Management will consist of:
 - 1.2.1 the Vice-Chancellor & President of CSU, or his or her nominee;
 - 1.2.2 the Deputy Vice-Chancellor & Vice-President (Research), CSU;
 - 1.2.3 the Director-General of NSW DPI, or his or her nominee;
 - 1.2.4 the Deputy Director-General, Agriculture NSW, NSW DPI.
- 1.3 The Board of Management will convene meetings whenever necessary to discharge its obligations, but not less than twice per year. Meetings may be face-to-face or by electronic means, as the Board determines appropriate.
- 1.4 The Board will have a rotating Chairperson between CSU and NSW DPI on an annual basis.
- 1.5 All decisions of the Board must be made by unanimous decision.
- 1.6 The quorum for any meeting of the Board will be three members.
- 1.7 The Director of the Centre will be expected to attend meetings of the Board but will not be entitled to vote.
- 1.8 Role of the Board of Management
 - 1.8.1 The parties agree that the Board of Management will have the responsibility and authority to:
 - (a) approve plans for the Centre;
 - (b) facilitate the integration and cooperation of personnel and other resources of the Centre;
 - (c) set performance indicators and monitor and evaluate the performance of the Centre and conduct a major review of the operations of the Centre when the Board considers necessary;
 - (d) approve annual budgets and funding arrangements;
 - (e) approve the nature or any joint infrastructure or other resource sharing arrangement;
 - (f) recommend to the Parties a joint capital development plan;

- (g) admit new Parties under clause 26 of the Centre Agreement [New Parties];
- (h) carry out any other functions given to the Board of Management under the Centre Agreement or other functions as agreed by the Parties from time to time;
- (i) receive reports from the Director and the Industry Advisory Committee.

2. Industry Advisory Committee

- 2.1 The Parties will establish an Industry Advisory Committee to advise the Director and oversee the progress, direction and development of the Centre.
- 2.2 The Committee will consider and recommend to the Director and the Board the priority of projects and will consider industry development issues within the framework of the strategic directions set by the Board.
- 2.3 The selection of representatives will aim to achieve a balance in representation between the differing interests of agriculture and natural resource management and will serve on a three year basis with a maximum of six years' tenure.
- 2.4 The Industry Advisory Committee will consist of:
 - 2.4.1 the Director of the Centre;
 - 2.4.2 an independent Chair, appointed by the Board of Management;
 - 2.4.3 two independent members nominated by NSW DPI;
 - 2.4.4 two independent members nominated by CSU.
- 2.5 Each Party may appoint one (1) alternate for each of its members.
- 2.6 A Party may replace its member(s) appointed to the Industry Advisory Committee by 14 days' written notice to the other Parties.
- 2.7 The Industry Advisory Committee will convene meetings whenever necessary to discharge its obligations, but not less than twice per year. Meetings may be face-to-face or by electronic means, as the Industry Advisory Committee determines appropriate.
- 2.8 In the event of an even number of members in attendance, any motion being evenly split between the votes will lapse.
- 2.9 Role of the Industry Advisory Committee
 - 2.9.1 The Industry Advisory Committee will:
 - (a) provide strategic and/or technical advice on directions for the Centre to meet industry research, development and extension priorities;
 - (b) advise on dissemination and adoption of research outcomes;

- (c) assist in the development of an annual plan for the Centre;
- (d) facilitate links between the Centre research and extension staff and industry;
- (e) assist in the development of the profile of the Centre with industry, funding bodies and other research providers;
- (f) advise on the integration of training, research and extension activities of the Centre.

3. Research Management Committee

3.1 Comprising the Director and staff representatives, the Research Management Committee (RMC) is responsible for:

- 3.1.1 resource allocation;
- 3.1.2 achieving research priorities;
- 3.1.3 developing strategic research direction;
- 3.1.4 encouraging active participation of staff and stakeholders; and
- 3.1.5 promoting research outcomes.

3.2 The primary objectives of the RMC are to

- 3.2.1 provide research leadership;
- 3.2.2 provide advice regarding strategic research direction, resource allocation and requirements;
- 3.2.3 ensure progress within research priority areas; and
- 3.2.4 promote increased collaboration, publication in high quality journals, application for external grants and supervision of research higher degree students.

3.3 Membership of the RMC is based on leadership in the research priority areas, active participation in the Centre and fair representation of institutions and locations. Membership is normally for two years.

3.4 The RMC will convene meetings whenever necessary to discharge its obligations or as determined by the Director.