May 2013

ADOPTION AND PRACTICE CHANGE ROADMAP

Executive Summary and Recommendations

AgResearch has been given the following Core Purpose from its shareholder:

"AgResearch's purpose is to enhance the value, productivity and profitability of New Zealand's pastoral, agri-food and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand".

Explicit within this purpose is the delivery of real outcomes within the sector. This requires significantly more activity than the release of science publications. Adoption and practice change resulting from the delivery of AgResearch knowledge and technologies is critical to AgResearch achieving its purpose.

To assist AgResearch in achieving greater impacts from its activities, we started the development of this Adoption and Practice Change Roadmap in September 2012. The aim was to identify both the activities which AgResearch needed to undertake, the key partnerships that AgResearch needs to have and to seek the appropriate metrics to measure adoption and practice change.

Information was collected through a series of internal and external workshops, structured interviews focused on current or recent project activity and delivery together with commissioned reviews of international best practice including evaluation and monitoring tools.

From this work we have proposed the following **Vision**:

> **AgResearch will ensure that effective adoption and practice change occurs from its research activities through leveraging its leading position in the science of adoption and practice change. Through its actions, AgResearch will play a catalysing role in ensuring more effective adoption and practice change across the wider New Zealand pastoral agriculture sector.**

Achieving this vision requires AgResearch to both actively undertake activities within its organisation, but to also be an active participant within the wider industry. The relevant literature describes how positive adoption and practice change occurs within "innovation networks", which comprise a range of different parties. The challenge for AgResearch is to develop strong connections to New Zealand's pastoral innovation networks and to understand their interdependencies. AgResearch scientists should

recognise the co-dependencies of their projects so they can accelerate and optimise adoption and practice change.

By understanding and adopting international best practice, AgResearch will be at the national leading edge of delivery of impacts from its science and be a well-respected participant in innovation networks. AgResearch will have a deeply embedded partnership culture and attitudes such that all staff monitor and reflect on their progress towards delivery of impacts. Where gaps exist in the innovation network AgResearch will act as a catalyst to support the development of necessary awareness, skills and capability in their partners to ensure their success – and in turn the success of AgResearch.

The main objectives of the roadmap were:

1. To update AgResearch's position and capability, within the NZ pastoral innovation system.
2. To ensure that AgResearch has access to the relevant science capability and competencies to deliver, and transfer as appropriate, R&D targeted at enhancing adoption and practice change.
3. To identify the key partnerships that AgResearch will need to have to ensure effective uptake of its knowledge, tools and technologies.
4. To develop key metrics that will be used to measure adoption and practice change.

Determining the capability that will be required to ensure we have a leading position in the science of adoption and practice change was out of scope. Following its endorsement by the board, this roadmap will guide development of a science plan for the People and Agriculture team.

The roadmap through interaction with our stakeholders has identified the role that AgResearch can play and implementation of the roadmap will update our position and capability within the NZ pastoral innovation system (recommendation 1).

We have identified the types of capabilities, and competencies that will be required within AgResearch to enhance adoption and practice change (recommendations 3, 4 and 5).

We have identified methodologies and processes that will assist us to identify key partnerships (recommendation 2).

It is concluded that the following objective of the Roadmap cannot be met, namely: *"To develop key metrics that will be used to measure adoption and practice change"*, because metrics will need to be project specific. We have however identified means to develop key metrics at a project level that can be used to measure and evaluate contribution to impact of our research (recommendation 3).

In the area of metric development for evaluation of contribution to impact, the focus of the roadmap was at the project level not at a 'whole of organisation' level. Undoubtedly the two are interrelated and close communication between science and business performance will be required to ensure information flows between both scales. The people developed through Recommendation 3 on building capability in monitoring and evaluation of projects could act as a communication conduit.

We have formulated high-level recommendations which should enable AgResearch to become an effective partner in the delivery of impacts. In acknowledgment of the range of complex actions that will occur we recommend that the implementation of the roadmap be guided by a series of pilot cases

aligned with different impact areas that should be undertaken within the next twelve months. The lessons from these cases will be used to guide and support the roll out of a companywide process.

Recommendations

Recommendation 1. AgResearch develops overviews of the innovation networks supporting all impact areas. These high level overviews will help Science Impact Leaders and staff to understand the context of our science, including who else outside of AgResearch is contributing to the impacts. They will thus assist in defining the role of AgResearch, identifying our key partners to impact and will inform more detailed planning tools for individual projects (see recommendation 2). It is recommended that in the first twelve months three impact areas should be identified to undertake pilot cases that will inform company activity beyond year 1. Involving the relevant stakeholders in the pilot cases will assist in building key partnerships to achieve impact. AgResearch is highly dependent on next-users and their connectivity to end-users for both our and their contribution to be successful.

Recommendation 2. AgResearch develops planning tools to assist it in defining its role and responsibility in contributing to impact for of all its research activities. These tools will be used to support the development of all new major investment proposals and will be informed by recommendation 1. It is recommended that in the first twelve months the pilot cases identified in recommendation 1 will be used to apply and test these tools for relevance and effectiveness before rolling the application of this approach out more widely. The roadmap provides examples of tools which can be adapted for this process.

Recommendation 3. AgResearch builds capability to undertake monitoring and evaluation of projects for all impact areas. This capability will support project managers to develop appropriate metrics of progress and delivery of impacts for all existing and future research activities. Such metrics should be carefully structured to be effective while minimizing compliance, taking into consideration that projects may change direction over time and recognizing the lags associated with the uptake of much research. AgResearch will explore opportunities for alignment and sharing of metrics with other participants in the Sector. Recommendation 1 should incorporate this recommendation. This recommendation should inform activity required by the AgResearch Business Performance group and vice versa.

Recommendation 4. AgResearch acknowledges, identifies and develops "Innovation Brokers" and strengthens their role in the "right project teams". Future project planning and investment application should include provision of resource for personnel to act as "Innovation Brokers" to connect research effectively both internally and externally within a "right project teams" approach. AgResearch already has people recognised as operating in this role. We should use our stakeholders to assist us in testing our assumptions and use this to identify key capabilities and competencies required for the role and to undertake an assessment of the need for recruitment of additional resource. In some instances Innovation Brokers could be sourced through partnerships with outside organisations.

Recommendation 5. AgResearch identifies the key culture, skills and competencies it requires to deliver to the Vision, and introduces a comprehensive programme to attract, retain and develop staff with these skills and competencies. The skills and competencies identified as being particularly important include farm systems skills, social science and the interpersonal skills required to build understanding and trust within the sector. In recognition of the differences in culture related to adoption and practice change within the company it will be important to engender a sense of value,

respect and responsibility towards contributing to impact across the company whilst celebrating success.

Recommendation 6. AgResearch develops an organisation-wide approach to establishment and appointment of advisory groups, and includes, where appropriate, within their Terms of Reference activities which enhance their contribution to the delivery of impacts. This should lead to a) a clear understanding of all existing advisory groups together with their roles, interdependencies and expertise; b) an organisation-wide plan for provision of integrated advice; and c) changes to existing terms of reference as necessary to enhance their effectiveness in supporting adoption and practice change.