Telling the Story
Knowledge Transfer Meeting
Working/Integrating Across Scales

Region

Farm

Management Unit

Point

Preserving Agricultural Productivity

Making Tracks

A Shared Space

Gas Farm Design

Without A Trace
PROJECT 1

Changing Spatial Footprint of CSG on farming land over time

Lost Agricultural Revenue 4.4-8.8%
PROJECT 2

Communication is important but many CSG staff or contractors do not communicate the way farmers do, or see through farmers’ eyes.

Local is important – locally based CSG staff can bridge this gap.

Information is important – farmers want info in their hands to help them manage the process better.
PROJECT 3

Ways to design and negotiate CSG layouts that worked on farms.
PROJECT 4

High precision digital photogrammetry to monitor changing water flows in CSG tenements
Mitigation and/or rehabilitation of soil damage from CSG

- Soil mixing
- Soil compaction
- Chemical changes

Compaction is similar to existing state government trial data
Likely to rehabilitate with natural processes over 5-7 years.

<table>
<thead>
<tr>
<th></th>
<th>Not Compacted</th>
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<tbody>
<tr>
<td>PAW (mm)</td>
<td>209</td>
<td>104</td>
</tr>
<tr>
<td>Root Depth (mm)</td>
<td>1304</td>
<td>912</td>
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<tr>
<td>Yield (t/ha)</td>
<td>3.1</td>
<td>1.7</td>
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GISERA phase one has seen a large amount of research undertaken in Queensland on a variety of topics and community members are keen to have this information.

However, discussions at several agricultural research forums have raised the problem that farmers feel they do not have sufficient time to collate and interpret the large volume of information they receive from industry, community, and research groups.

They have been requesting that a means of packaging and communicating relevant and useful information be developed.
Project Aims

• To prepare story pieces that summarise changes to farming and community from CSG development using maps, surveys and other research to date.
• To understand the usefulness and relevance of our research.
• To identify gaps in our research.
• To understand trust in our research.
• To clarify information needs at this stage of the industry cycle.
## Story Pieces

<table>
<thead>
<tr>
<th>SOCIAL</th>
<th>LANDSCAPE CHANGE</th>
<th>FARMING PRACTICES</th>
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<tbody>
<tr>
<td>Community wellbeing in the Western Downs: 2014 and 2016</td>
<td>Water Flow maps and 3D virtual landscapes</td>
<td>Understanding the way farmers see their farm</td>
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<tr>
<td>Community attitudes towards CSG development: 2014 and 2016</td>
<td>Spatial data on CSG footprint</td>
<td>Farm Machinery GPS Data around CSG wells</td>
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<tr>
<td>Responding to change: 2014 and 2016</td>
<td>Historical Aerial Photographs</td>
<td>Soil Compaction</td>
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Fact Sheets

Simple 2 Page Fact Sheet With Standard Format
One simple message per sheet
Key points highlighted clearly
Describe the research in simple terms
Fact Sheets

Photos of the issue where possible

FAQ on how we did the research

Take home message

Info on how to get the full report if they feel the need for more detail
Changes in Landscape
Changes in Landscape
Telling the Story

Over four days during May and June, our research team set up a research display at two rural events and collected feedback from local attendees.

- **Miles Rural Show** – a one-day local show held May 17, 2016.
- **Farmfest** – an annual three-day agricultural field day held in Toowoomba June 6-8, 2016.

Interaction areas, PC’s, PPT presentations, maps, photos, reports, fact sheets, animations, memory sticks full of stuff, business cards, follow farm visits.
Who did we speak to?

Overall, we obtained feedback from 111 people:

- 79 men and 32 women
- Approximately **two thirds** were **farmers**
- Approximately **one third** comprised a mix of people including:
  - People working in rural areas,
  - People working in the CSG industry (e.g. pipeline construction),
  - Federal, state, and local politicians,
  - Government employees,
  - Local business owners,
  - Retirees, and visitors to the regions.
- Note: self selected sample of people
Conclusions and Key Messages

What did we learn about our research and methods we use to communicate it?
Conclusions and Key Messages

Message #1 - Consider differing communications needs
Conclusions and Key Messages

Message #1 - Consider differing communications needs

- Detailed information that could help them with planning, negotiating, and conducting their farm enterprise.
- Interactive information that was able to specifically highlight their own situation was found to be highly valuable.
- Delivering this information one-on-one or in a problem solving approach was valued by the farmer.
Conclusions and Key Messages

Message #1 - Consider differing communications needs

- Scientific information, information monitoring changes, and information on ‘what’s happening?’ particularly in relation to the future for their region.
- Expectation that the science and monitoring research would be considered by government and would inform industry standards and government policy.
- The level of engagement from this group was heavily influenced on whether or not they were currently impacted.
Conclusions and Key Messages

Message #1 - Consider differing communications needs

- Engage at a more superficial level.
- Interested in the science but wanted simple messages that were easy to understand and not overly complex.
- This audience also involved children who were seeking information for school projects.
Conclusions and Key Messages

Message #1 - Consider differing communications needs

- Interested in the quality of the data, the sample used to collect the data, and the robustness of the science.
- Often identified other areas in which research may be relevant and they considered the wider impact of the science.
Conclusions and Key Messages

Message #2 - Help people to engage with information on their own terms

- People will not readily trust information that appears to come from a party that is biased in their assessments.
- Information presented in a neutral way builds confidence in the information provider, and allows the person to engage in the discussion and come to their own judgement.
Message #3 - Visual aids to help people to interpret and process the problem

- Visual aids help to address the previous issue.
- The use of animations, maps, visual aids help to
  - Include the participant within the process of interpreting the data directly
  - Empowering the individual to make their own judgements
  - Helping them to communicate their thoughts with others.
Conclusions and Key Messages

Message #3 - Visual aids to help people to interpret and process the problem
Message #4 - Little things help a sustainable long term relationship

• Trust in CSG companies as capable operators is undermined if CSG companies or their operators/contractors continue to make simple mistakes.
• Taking advantage of local knowledge from farmers not only supports a better outcome but also enriches the relationship, indicating to the farmer a mutual respect and a preparedness to learn.
Message #5 - CSIRO is a trusted advisor in this industry

- CSIRO continues to enjoy the trust of community.
- However, community members have reiterated the need to continue ensuring that mechanisms safeguarding research independence are maintained.
Conclusions and Key Messages

Message #6 - Future research opportunities in new regions and industry phases

• Community members are keen for research to be extended into new geographical areas such as the CSG development areas around Wandoan.
• The community is also keen for research to commence sooner rather than later
• Need to address new issues arising from the CSG production phase, and future issues regarding eventual decommissioning of the industry.
Conclusions and Key Messages

Message #7 - Continue to address the uncertainty

• There is a need to focus research efforts and communication on helping to address the uncertainty around CSG and its impacts.

• Research updates that collate the latest research on key areas of uncertainty such as well integrity and ground water connectivity would help to address the more widely held concerns of communities.

• Such review papers could help to dispel myths that may develop to fill knowledge gaps, and which create anxiety within CSG communities.
Conclusions and Key Messages

Message #8 - A valuable touchpoint with the community

• The researchers have found such a level of community engagement to be of great benefit in understanding issues arising from their research, and methods for better communicating with important sectors of the community.

• Similarly, many participants expressed their gratitude for being able to speak with the researchers directly.

• Such interactions should become a regular part of GISERA’s research communications agenda.
Thank you