



SUBMISSION TO THE STANDING
COMMITTEE ON AGRICULTURE,
FISHERIES AND FORESTRY

**INQUIRY INTO RURAL
SKILLS, TRAINING AND
RESEARCH**

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1. The role of MLA

Meat & Livestock Australia Limited (MLA) is a producer-owned company that provides services to the entire Australian red meat industry including producers, processors, exporters, live exporters and retailers. MLA has around 30,000 livestock producer 'members'.

MLA's core activities are working to improve market access, building demand for Australian red meat and conducting research and development (R&D) to provide competitive advantages for the industry.

MLA is primarily funded by transaction levies paid by producers on livestock sales. This is supplemented by cooperative contributions from individual processors, wholesalers, food service operators and retailers. Processors and live animal exporters pay levies under contract to MLA. The Commonwealth Government is a major contributor, providing dollar-for-dollar funds for money spent on R&D.

2. Research and development

MLA conducts R&D throughout the supply chain to develop competitive advantages for the red meat industry. On-farm, MLA structures its programs in line with the government's national research priorities.

This portfolio consists of programs aligned under the categories of animal health and welfare, environment, improving productivity, supply chain management, strategic science, adoption and capacity.

Post-farm R&D activity includes environmental management, product development, health and safety, education and training, technology development and commercialisation, food safety and microbiological research, and co-product innovations such as leather, sheepskin and bone.

2.1. On-farm Delivery of R&D Outcomes

A key goal of MLA is to build sheep, cattle and goat producers' awareness of the outcomes of its research and encourage them to change their management practices to improve on-farm productivity, profitability and sustainability.

In aggregating producer levies matched by government funds, there is an assumption that, in some way, all levy payers can derive benefit from this investment and that there will be broader community benefits. In making these assumptions, the estimated 80,000 levy payers are often thought of as "an industry". In reality there are 80,000 individual businesses making decisions on a whole range of factors, many of which are not related to their individual productivity or sustainability.

The underlying philosophy to assist research adoption is for MLA to make available, in a range of formats, up-to-date R&D material that is relevant to individual producers.

There has been a significant amount of research to assist in the thinking and planning of research adoption, such as the outcomes from the Sustainable Grazing Systems (SGS) project and published in the Australian Journal of Experimental Agriculture (Volume 43, Number 7-8, 2003, 663-1082. ISSN 0816-1089).

Out of this program came knowledge that research adoption was a process that moved from;

1. Awareness/motivation, to
2. Trialling, and finally to
3. Adoption.

This model is shown in figure 3.

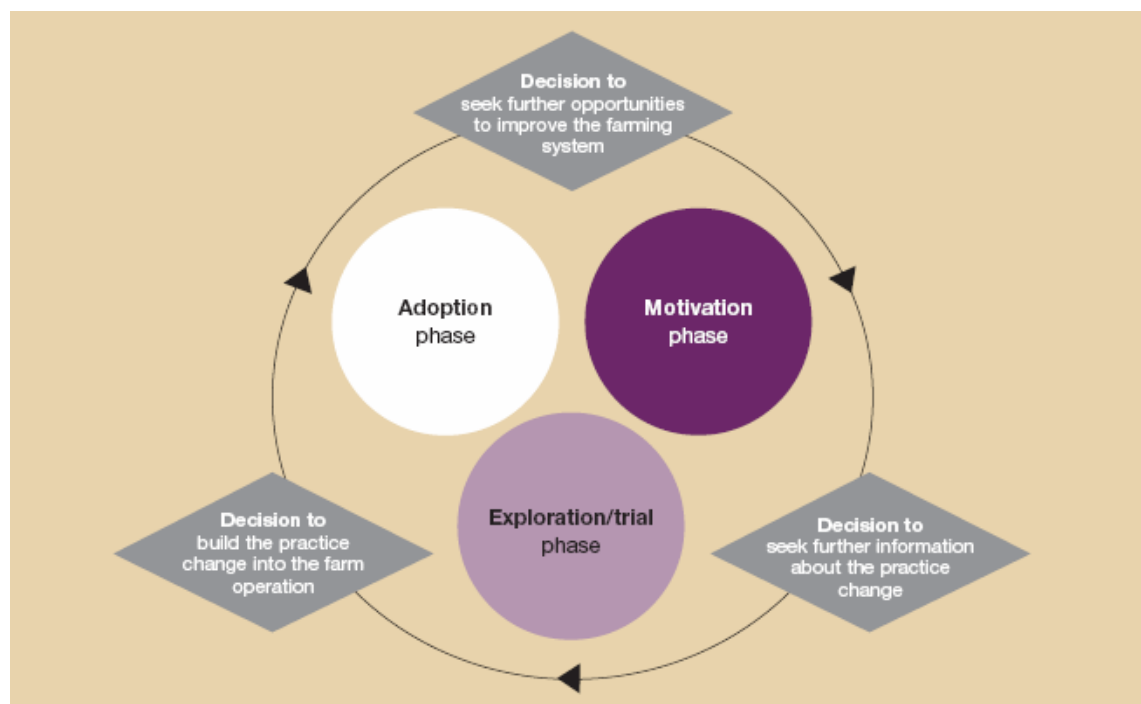


Figure 3 Research Adoption model developed from SGS

Awareness/Motivation – a number of current activities focus on making producers aware of new research information that may be relevant to their individual enterprises. These include publication of R&D reports, Meat Profit Days, Tips & Tools information sheets, Producer forums, Feedback magazine, the MLA website, Prograzier magazine and a variety of booklets. We estimate that these various forms of information reach potentially 40,000-45,000 producers.

Trialing – the stage from being aware of new information to “trying it out”, often involves some further support and encouragement by trialing. MLA has a number of programs here including producer initiated research and development scheme (PIRDS), demonstration trials (currently through More Beef from Pastures program and PrimeTime), EDGenetwork – structured learning programs that have now been attended by almost 10,000 producers and programs such as BeefPlan – facilitated empowerment to help producers make change. Of necessity these programs involve producers who are actively seeking change and interested in new ideas. Depending on the type of program this material will reach between 1,000 and 10,000 producers.

Adoption – in moving from R&D awareness through to a trail to full scale adoption, there are a number of very significant steps and these have been identified in a number of studies done on behalf of MLA. Adopting significant change requires some one-on-one mentoring and MLA has been successful in influencing genetic change through a public/private provider model with programs such as LAMBPLAN and Merino Genetics Services (MGS).

These programs have provided information and tools to producers together with direct advice and consulting to adopt estimated breeding values (EBVs) in breeding programs, to achieve more rapid genetic gain. Depending on the program involved, this type of program will reach between 500 and 1,000 producers.

Alternatively, MLA's delivery and adoption activities can be segmented into five specific learning style models. The initiatives which fall into these are outlined below.

2.1.1. Group Facilitation/Empowerment Model Projects

Project	Approach	Comments
BeefPlan	Provides a facilitator to assist self-formed groups in planning goals and learning activities – provides opportunities for cross-group sharing.	BeefPlan was triggered by Northern Beef producers themselves who sought RDC support for their unique situation and learning needs. An evaluation of the pilot by URS in 2001 concluded: <i>BeefPlan is an unqualified success in empowering producers for change. Onlookers are struck by the extent of behavioural and attitude change in participants as well as their self-directed learning. Much of the learning has been about components of integrated property management and participants are confident this learning will improve their business performance. Groups have still some way to go to document whole property management systems, or to extend this information to the wider industry.</i>
BestWool/ BestLamb Groups	Combined investment with AWI and DPI Vic. Provides facilitation to help groups seek training that would benefit their businesses.	BestWool/BestLamb is a joint industry/ state government initiative and has strong industry support. Evaluation in 2002 (Coutts J&R) found there was strong evidence of learning and impact on practice. The strong program support for professional development and networking of facilitators was seen as a strength.
Bestprac	Combined with AWI	Bestprac is a group approach which aims to take participants through a continuous improvement/ problem solving cycle in a structured manner and fosters information sharing and on-farm trialing.
BeefCheque/ LambCheque	Combined with DPI Vic and the Beef Improvement Association (BIA)	BeefCheque/LambCheque is a group-based program run over 10 sessions per year for 3 years on demand. Each group (approximately 15 members) is facilitated by an Industry Specialist and has access to technical Specialists. Accreditation under the VET system is possible.

2.1.2. Programmed Learning Model Projects

Project	Approach	Comments
EDGE<i>network</i> [®]	Use of licensees, contractors and external deliverers (provision of professional support). MLA contracts teams to develop and pilot workshops and materials to be then delivered through licenses. Linked to VET.	<p>EDGE<i>network</i>[®] provides a framework for developing and delivering courses and workshops based on the latest research, knowledge and experience about a wide range of topics.</p> <p>A review (Hassall & Associates 2004) concluded that it has contributed to a greater uptake of past R&D findings through the training of livestock producers...good levels of participation and a high satisfaction with the training (and hence the product). The potential market penetration is estimated to be twice what is being achieved. The main potential for increase lies geographically in NSW and northern Australia, as well as amongst lamb and northern beef producers (industries). There are opportunities to work with producers involved in other initiatives and establish partnerships with other education, training and extension organisations in order to increase penetration. The potential penetration, in turn, depends on marketing investment, which has been under-resourced to date. 'Repeat' course participants also need to be recognised with respect to potential penetration. Overall it was recommended that the program should be continued.</p>
Prime Time Campaigns	Combined with Sheepmeat Council of Australia, all state agencies. Comprises awareness campaigns, forums and workshops.	<p>This includes three inter-related activities aimed at different groups: "making more from merinos"; follow-up workshops for forum participants; and "prime time for prime lambs".</p> <p>A recent survey has shown that this campaign has resulted in overall awareness of 46% by all sheep and lamb producers, participation was at 15%, and 80% reported that they have trialled or plan to trial management practices or tools as a result of attending a MLA Prime Time forum. It pointed out that this illustrated the potential for extending and further leveraging these activities.</p>

2.1.3. Technology Development Model Projects

Project	Approach	Comments
Producer Initiated R&D (PIRDs)	Producer Initiated R&D Groups are provided support in terms of funding and expertise to undertake their own research or applied learning activity.	<p>PIRDs provide scope for ‘bottom-up’ R&D – or opportunities to trial new approaches in a learning environment.</p> <p>A Strategic Review in 2001 (Welsman) concluded that the program appears to be realistically structured and organised, reflecting its origins in direct producer contact. For producer-levy payers, a PIRD is a front-line point of MLA service. The stakeholder interfaces can be pictured as the network around a PIRD. These positive points, plus suggestions of negatives (unsuccessful PIRDs, criteria openness, interaction of rigour and innovation, links with science and fit within MLA, and extent of demand – 1.4), need to be balanced against PIRD objectives and costs.</p> <p>A more recent evaluation of some groups (Rural Futures 2004) indicated limitations in terms of stimulating sustained learning groups.</p>
More Beef from Pastures (MBfP)	The MBfP program comprises a whole farm management manual and a range of innovative programs (eg demonstration farms) to support sharing and implementation of best practices by producers.	This program started in August 2004. The over-arching strategy is to influence as many producers as possible, together with intermediary partners, to engage with one or more components of the MBfP program so they may change on-farm management practices to improve profitability and sustainability. The eight modules of the MBfP manual, upon which the program is based, explain all the key principles for managing a profitable beef enterprise, and provides a pathway for southern beef producers who want to lift the productivity, profitability and sustainability of their beef enterprise.

2.1.4. Information Access Model Projects

Project	Approach	Comments
Prograzier	A free subscription magazine with a focus on practical articles on how to implement various management practices, including case studies of producers that have succeeded in such implementations.	<p>The magazine currently has 14,000 subscribers. There is some good research of the subscribers as to what they think of the publication. Prograzier ranks above any type of other information source when looking at influencing management change.</p> <p>Prograzier rates the readership levels 60% awareness, 30% trialing and 10% adoption. Readers tend to retain past issues for reference.</p>
Meat Profit Days (MPDs)	A one day regional 'field day' is run providing local producers with an overview of current research and outcomes.	<p>Meat Profit Days (MPDs) are one way of showcasing research in the regions. They are planned and managed by local producers for local producers – and underwritten and assisted by MLA.</p> <p>An earlier review of MPD (Coutts) found that the days were strongly supported by producers and provided motivation for change and resulted in more people becoming participants in group extension programs or attending workshops.</p> <p>A recent survey (AgScan Sept 04) showed that 58% of producers who attend MPDs actually make changes to their business – based on the information provided on the day.</p>

2.1.5. Consultant/Mentor Model Projects

Project	Approach	Comments
LAMBPLAN	LAMBPLAN is the national genetic evaluation program for the Australian prime lamb industry.	<p>LAMBPLAN provides a performance recording system that predicts an individual animal's ability to produce progeny that meet the requirements of the current and future markets for lamb products.</p> <p>The genetic information is provided in the form of Estimated Breeding Values (EBVs) and Selection Indexes. This means that seedstock breeders and prime lamb producers can use LAMBPLAN EBVs to get simple, accurate and practical information on the genetic value of an animal, independent of non-genetic (environmental) influences on the animal's exhibited performance for a comprehensive range of product traits.</p> <p>All major terminal, maternal and dual-purpose breeds in Australia use LAMBPLAN.</p> <p>LAMBPLAN EBVs are comparable across flock within breed for the maternal and dual-purpose breeds. EBVs for terminal sires are comparable across flock and across breeds.</p>

2.2. Post-farm Delivery of R&D Outcomes

From the meat processing sector perspective, through MLA's direct support of and involvement with the National Meat Industry Training Advisory Council Limited (MINTRAC), we believe that training and education services are currently meeting industry needs.

2.2.1. MINTRAC

MINTRAC is jointly funded by MLA and Australian Meat Processor Corporation (AMPC). It represents the industry on training matters. The role of MINTRAC is to improve the skills of workers in the industry through the provision of recognised and accredited training from entry level through to senior management. Its mission is to improve efficiency, quality and competitiveness in the meat industry through developing, implementing and maintaining an industry-wide training system resulting in a highly-skilled and productive workforce.

2.2.3. Scholarships and Postgraduate Programs

MLA supports the livestock and meat processing sectors through its workplace training, scholarships and postgraduate programs under MINTRAC¹ :

- *Postgraduate scholarships* (PhD and Masters) that include research in the meat industry
- *Small research grants* for individual processing companies (similar to PIRDs)
- *Families scholarship* for the children of people working in the meat industry to gain qualifications relevant to the meat industry
- *Upskilling scholarship* for meat workers to undertake training at TAFE or university.

These scholarships are designed to encourage research in the meat industry, attract people to work in the industry and provide opportunities for workers already in the industry to progress their careers.

MLA has, or is currently developing, programs to develop industry skills sets to understand and apply new technologies, sophisticated machines and processes, managing company logistics and understanding product characteristics at a nano level. This is in the form of a structured learning program. The modules within this program are:

- Stage 1 - Support of undergraduates whilst at university
- Stage 2 – Development of processing maintenance personnel to university qualifications
- Stage 3 - Year 3 structured and applied practical work in area of discipline
- Stage 4 - Year 4 continued support with structured final year projects
- Stage 5 - Structured graduate support and development program.

Over the past three years MLA has supported the development of Stages 1, 3 and 4 of the program and this document details Stage 5 of the program. Stage 2 is also currently under development.

The Technical Undergraduates Work Experience Program offers a range of benefits to the student and the participating company. The program operates over the typical university summer break period (December-February, approximately 12-13 weeks) and engages a penultimate year student from any Australian University, in any technical field and is available to any processing site in Australia. The program has been running since 2001 and has seen over 40 graduates participate.

The Professional Graduate Program offers a range of benefits with two clear focus areas – professional employment issues and staff retention. The program operates for each graduate for his or hers first two to three years of employment in any professional field and is available to any processing site and solution provider to the industry in Australia. Each graduate conducts/participates in a series of relevant training, site specific and professional development projects over a two to three year period.

Internal MLA meat industry programs include the:

- *Undergraduate 12 week vocational program* which gives undergraduates the opportunity to conduct a 12 week R&D project on site
- *Professional graduate program* for new graduates to undertake up to 3 years employment within the industry.

¹ MINTRAC is the National Meat Industry Training Advisory Council Limited which is jointly funded by MLA and Australian Meat Processor Corporation (AMPC).

3. Future Opportunities for MLA research and adoption

3.1. MLA on-farm strategy to 2011

MLA's five-year livestock production plans are presented and signed-off by the relevant Peak Council bodies (SCA, CCA, ALFA & GICA).

The 2006-2011 Plan builds on the strengths of the past five years and exploits the opportunities identified for the future of the industry. A major component of this plan is the delivery, capacity building and future opportunities.

3.2. Potential enhancements to programs

In looking to the future, MLA is proposing to enhance already successful programs and to develop several new initiatives in the following delivery areas:

Information Access Model Projects

- Significantly **upgrading R&D information on the MLA website** and development of electronic communication to allow more effective individual producer access of R&D results.
- Establishment of a **Northern Prograzier** magazine focused on the Northern Beef Industry – this will build on the success of Prograzier which has been assessed as MLA's most valuable technical publication and enthusiastically endorsed by producers in Southern Australia.

Technology Development Model Projects

- **Monitor Farms** – this idea builds on a successful New Zealand concept that involves work with a number of farms to evaluate the impact of R&D and assist in triple bottom line evaluation as well as being used for collection of R&D results.

Consultant/Mentor Model Projects

- **Mentoring program** – one of the major impediments to uptake of R&D, identified by a number of studies, is lack of support to make change and implement to monitor the change. A mentoring program where some support is provided to assist producers in taking first steps needs to be explored.

Traditionally this role has predominantly been provided by state departments of agriculture, which have been wound back in a number of states.

This need for advice and/or mentoring, identified as a critical part of the 'capacity building ladder' by the Cooperative Venture for Human Capacity Building, has in the main, not been filled by private sector consultants.

A large proportion of producers appear to be unwilling to pay for farm management advice. MLA survey data indicates that over 80% of producers have never used a farm management consultant to set enterprise strategy, and only 6% use one often.

The willingness of producers to pay for such services has a direct bearing on the number of consultants in the industry, which tend to focus on the relatively small proportion of producers which value and can directly apply their advice.

MLA supports the provision of all extension and advisory services through the provision of current, relevant R&D results in a format suitable for use by both public and private providers. MLA itself does not generally have the resources or infrastructure to provide extension and advisory services.

- **Annual Consultant Agribiz forums** – MLA recognizes the importance and role of industry ‘intermediaries’ which have a direct client relationship with producers e.g. agribusiness, state extension services etc in contributing to the distribution of information and eventual uptake of R&D.

To this end MLA has proposed to increase engagement with intermediaries through forums run annually in several areas around Australia to provide an update of R&D results for consultants, State DPI extension officers and others interested in the agribusiness sector such as stock and station agents.

This would enable new information to be provided to the private sector, which could enhance and further develop this information in existing courses as well as for public sector extension officers.

For the meat processing sector, the provision of extension and advisory services in the red meat industry is a key role of MINTRAC.

4. Additional issues addressing committees specific enquiries:***i. The availability and adequacy of education and research services in the agricultural sector, including access to vocational training and pathways from vocational education and training to tertiary education and work.***

In the on-farm area, MLA supports the bridge from education to agricultural research through its post-graduate program and various scholarships, which has supported hundreds of students dating back to 1975 through MLA's predecessor organisations.

An analysis of those awardees has indicated that approximately 75% have made high level contributions during their careers, and 79% were still involved in various segments of the red meat industry or other aspects of Australian agriculture.

Nevertheless, that same analysis pointed to potential problems for the future for education for the industry due to trends toward a decline in enrolments in the traditional "agricultural science" areas, together with internal university targeting of other areas of research strengths.

From the meat processing sector perspective, through MLA's direct support of and involvement with MINTRAC, we believe that training and education services are currently meeting industry needs.

MLA has, or is currently developing, programs to develop industry skills sets to understand and apply new technologies, sophisticated machines and processes, managing company logistics and understanding product characteristics.

With regards to the availability of research services in the agricultural sector we believe that availability of livestock production research in Australia is generally satisfactory, although in some fields (e.g. genomics and animal welfare) availability of research services in Australia has led us to seek collaborative arrangements with organizations overseas.

MLA funds R&D projects conducted by public providers, such as CSIRO, state departments of agriculture, universities, and private research providers (primarily consultants).

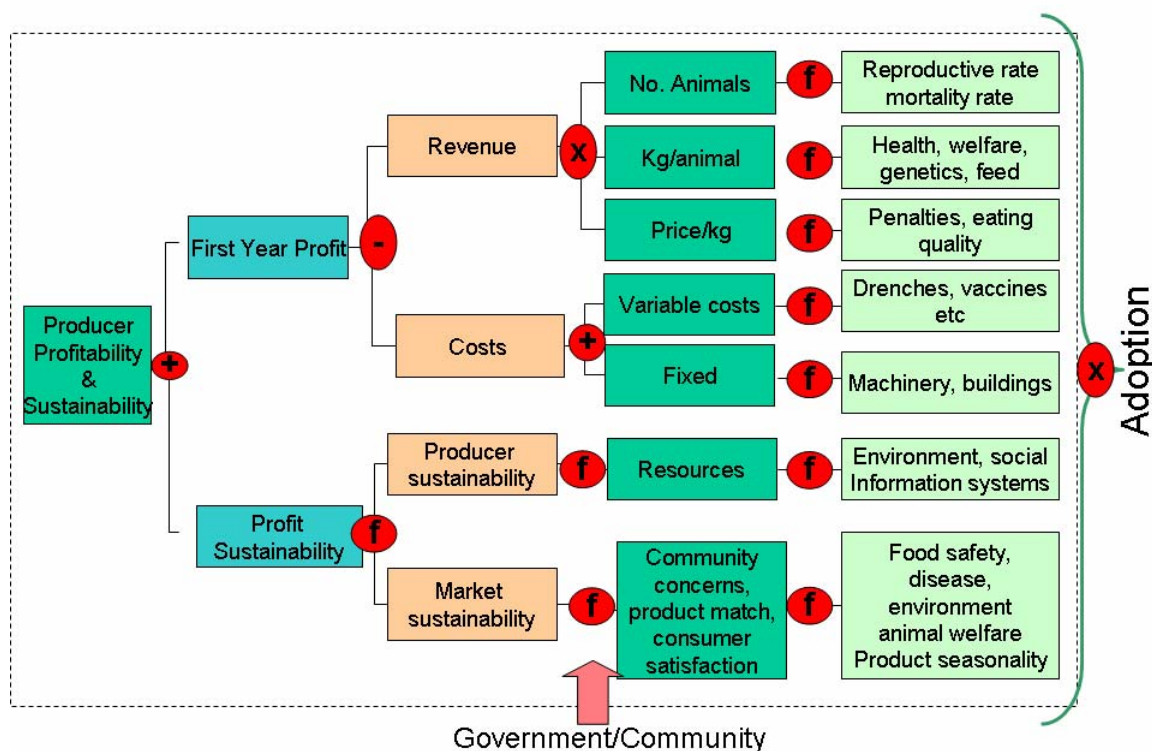
MLA structures its on-farm research portfolio to achieve approximate allocations as follows:

- 25% higher risk, long-term strategic science
- 50% intermediate risk applied R&D
- 25% communication and research adoption.

Within this allocation, we have found sufficient research services to meet MLA's strategic goals.

- ii. *The skills needs of agricultural industries in Australia, including the expertise and capacity of industries to specify the skills-sets required for training, and the extent to which vocational training meets the needs of rural industries.*

R&D Investment Framework



Through analysis of key profit drivers of livestock-producing enterprise (shown above), MLA has identified the critical knowledge and skills required by producers to improve profitability and sustainability. These cover the following areas:

- General farm business management
- Genetics
- Pasture production and utilization
- Animal health and welfare
- Reproductive management
- Natural resource management
- Marketing.

As identified earlier there is a range of training opportunities available to producers.

iii. The role of the Australian government in supporting education, research and advisory programs to support the viability and sustainability of Australian agriculture.

MLA strongly advocates the continued role of the federal government in matching producer levies to support research in the meat and livestock industry. Without this support, current levels of research would inevitably be wound back to the detriment of the long-term future of the industry.

MLA recognises the critical importance of collaboration with government, the industry and other research organisations. Collaboration with industry identifies research that addresses the most critical needs. Collaboration with government ensures that R&D focuses on the delivery of triple bottom line results (economic, environmental and social). Collaboration with other research organisations – in particular the R&D corporations – enables joint approaches to common problems and eliminates the waste of duplicate research.

5, Conclusion

MLAs role must be to work with other groups and not adversely influence the market place. In particular, given the levy base where all producers provide payments to MLA, there must be a strong focus on making information available to all levy payers.

Therefore it is appropriate for the strongest focus to be in the areas of awareness/motivation and trialling where we estimate we can reach more than 50% of the total levy payers. It is also appropriate to focus some of our research adoption activities with leading producers, to assist in implementation of new technologies as these producers will help in a “pull through” approach with others in the industry.

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