



final report

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Australian Country Choice Collaborative Innovation Strategies Partnership program Stage 2

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Abstract

In May 2015, Australian Country Choice (ACC) and Meat and Livestock Australia (MLA) agreed to progress to Stage 2 of the Collaborative Innovation Program with an expanded focus to encompass the full range of ACC strategic business areas. The expanded Collaborative Program incorporated the full range of ACC and MLA marketing, innovation and R&D activities. To establish strategic direction for the program, a joint ACC-MLA Executive Steering Committee was formed to provide strategic direction to a more comprehensive approach to improvement across the business. The agreed ACC business improvement priorities including collaborative initiatives were managed by key working groups across the key focus areas.

The purpose of this capability building initiative was the development and implementation of a Stage 2 Collaborative Innovation Strategy Partnership (CISP) program between ACC and MLA. The Stage 2 CISP priorities were integrated into the company's overall business strategy and were continuously monitored against measurable performance indicators throughout the three-year program to identify the contribution of innovation to the bottom line and achievement of key business objectives. Ultimately, the outcomes delivered through the development and implementation of the innovation strategy contributed to development of ACC's long-term capability, and associated impacts on ACC's profitability, competitiveness and sustainability.

The scope of the innovation strategy was significantly broader than the previous Stage 1 program with a whole of business (on- and off-farm) approach. The primary focus areas were in the key business areas of:

- Operational efficiency (Process focus on energy use, technologies, productivity and materials handling)
- Optimal beef processing including further processing and product innovation
- Innovation resource planning and people capability development
- Sustainability (Environment)
- Feedlot/livestock
- Supply chain innovation (including areas such as eating quality; information management; supply chain alignment; through chain assurance)
- Marketing/product innovation - including integration between CISP and Collaborative Marketing (formerly ICA) programs as appropriate

During the three-year period, a range of strategy development and implementation activities were planned including (but not limited to):

- Documentation of key objectives and innovation initiatives in each of the above key business areas
- Quantifiable innovation performance targets in each of the key business areas, including the development of baselines and measurement systems to monitor progress
- Development of an innovation skills and resources plan to build ACC's capability to effectively implement the innovation strategies
- Initiatives to support the cultural change required across the business to deliver against innovation objectives

The ACC CISP program was overseen by a joint ACC/MLA Steering Group and implementation and managed by ACC's Innovation Managers (with additional internal and external resources as required). This project provided support for two half-time ACC Innovation Manager equivalent to one full time equivalence that was considered necessary to support the volume and complexity of

R&D/innovation projects expected within Stage 2 of the program. The ACC Innovation Managers' roles and responsibilities were assigned between two appointed ACC resources. Resourcing of dedicated ACC's Innovation Managers were reviewed at each of six month review meetings by ACC and MLA steering committee. Individual R&D activities was resourced on a case-by-case basis. It is noted that where external expertise was required to undertake any of the above activities, these will be treated as separate projects and will be contracted under individual schedules in the same way that other innovation/R&D projects are contracted.

To be effective, the CISP will be aligned and integrated with the company's overall corporate strategy and will be integral in enabling your company to successfully achieve its business objectives.

The major activities that were undertaken by the full-time ACC Innovation Managers included:

- Participated in the development of a comprehensive ACC Innovation Strategy across the key business areas identified above.
- Assisted in developing and monitoring key performance indicators and other measures of impact as agreed.
- Instigated innovation idea generation and filtering and feedback processes with a specific focus on operational efficiency and processing technologies.
- Developed and co-ordinated an agreed suite of R&D/innovation projects.
- Managed and monitored the ACC innovation portfolio to manage expenditure and track benefits from outcomes generated from ACC R&D/innovation projects and activities.
- Participated in the development and implementation of ACC's innovation skills and resources plan.
- Supported and coordination of site project teams.
- Participated in the development and implementation of cultural change initiatives required across the business to deliver against innovation objectives.
- Facilitated external relationship management with research partners, research providers, equipment suppliers, processing sector and value adding sector as appropriate.
- Participated in innovation skills development activities as agreed.
- Prepared regular project reports and quarterly innovation reports.

The current report details the activities of the ACC Innovation Strategies program, which were derived from the outcomes of the following projects:

- P.PIP.0446 – ACC CISP Innovation Manager
- P.PIP.5008 – ACC Collaborative Innovation Strategies Partnership program Stage 2

Table of contents

1	Background.....	5
1.1	Australian Country Choice – The Company	5
1.2	Collaborative Innovation Strategies Program	6
1.3	ACC’s Innovation Managers	7
2	Objectives & Key Measures of Success	8
3	Key Focus Areas	8
3.1	Innovation Strategy (ACC CISP Stage 2).....	8
3.2	Other Key focus area	10
3.3	ACC CISP resourcing and program management	12
4	Key Achievements & Outcomes.....	13
4.1	Innovation Strategy & Priorities.....	13
4.2	Innovation Processes & Management.....	14
4.3	Issues & opportunities.....	15
4.4	ACC’s CISP Yr 2015/18 Objectives & Goals.....	16
4.5	ACC’s Data Capture Strategy	16
4.5.1	Data priorities & imperatives.....	16
4.5.1	Objectives & desired outcomes	17
4.5.2	Scope of work	18
5	Conclusions	18
6	Recommendations / Next steps	18
7	Appendix.....	21
7.1	Historical timeline of Australia’s Country Choice	21
7.2	ACC Practical Problem Solving Tool	1

1 Background

1.1 Australian Country Choice – The Company

Australian Country Choice (ACC) is recognised as one of the largest vertically integrated supply chain organisations in the world. The business is dedicated to the best practice supply of high quality meat products. ACC is part of the Lee Group Pty Ltd, a Queensland company, privately owned and operated by the Lee family. The family business first commenced as H.J. Lee & Sons in 1958. The company progressed to rural activities in the Roma district in 1967 and developed one of Australia's first commercial beef cattle feedlots built at Brindley Park in the 1970s.

Since 1972, ACC has supplied exclusively to one client (Coles Supermarkets) and a number of export customers. ACC has a long-term established contract in place with Coles as the principal northern supplier and processor of beef products. The company's relationship with Coles was initiated in 1974 by Norm and Trevor Lee and started with the supply of grain-finished cattle. In 1995, a long-term contract was formalised between the parties, to provide a platform for the development of an integrated supply chain dedicated to Coles. This integration encompasses, cattle breeding, cattle backgrounding (growing), grain feeding, primary processing, exporting, further processing, retail packing and primary distribution services.

Currently ACC remains the principal supplier to Coles for their range of fresh beef under the Coles Finest, Coles butcher, Aussie Bites, Coles Grill and Drovers Choice branded product range. Additionally, the company processes Coles branded lamb, veal and Value added, Further processed and Retail-ready packaged fresh meat products for Queensland distribution. ACC Group has over \$650 million dollars invested in its integrated operations and creates employment for over 1,400 Queenslanders.

Australian Country Choice has a recognised commitment to excellence with the current established industry rankings:

- Top 3 privately owned companies in Queensland
- Top 4 cattle herd holders
- Top 5 beef lot feeders nationally (turnoff heads)
- Top 6 meat processors nationally (volume)
- Top 7 meat value-adders nationally (volume)
- Top 8 private land holders

As one of Australia's largest vertically integrated beef production supply chains, ACC is committed to an ethical and sustainable business partnership with our producers, suppliers and customers. The company's goal remains to achieve world's best practice in environmental sustainability, animal welfare, beef production, meat processing, employee health, safety and wellbeing and customer satisfaction by striving for continuous improvement (Refer to Appendix Section 7.1, Tables 1 and 2).

1.2 Collaborative Innovation Strategies Program

In September 2007, Meat & Livestock Australia (MLA) rolled out the red meat industry's innovation capability building program, piloted as the Collaborative Innovation Strategies Partnership (CISP) program. The program involves the co-development of comprehensive innovation strategies with individual enterprises, which meet commercial imperatives in addition to focusing on the implementation of key industry and government innovation priorities. The CISP is a flexible enterprise innovation capability building program that is customised for large and small enterprises throughout the red meat value chain. Enterprise innovation capability within the context of this program is defined as the underlying capacities that enable a firm to be innovative on a sustained basis, rather than producing one-off product innovations from time to time.

Using a structured and collaborative process, MLA partners with companies such as ACC to develop a customised strategic innovation capability building program for a staged three year duration. The program can encompass the entire business (whole-of-enterprise program) or alternatively remain focused on a specific business area in which you identify a need to develop innovation capability (focused program). The partner company can appoint an internal innovation manager, and/or can develop multiple resources to implement and sustain innovation initiatives.

The Stage 2 CISP priorities were integrated into the company's overall business strategy and were continuously monitored against measurable performance indicators throughout the three-year program to identify the contribution of innovation to the bottom line and achievement of key business objectives. Ultimately, the outcomes delivered through the development and implementation of the innovation strategy contributed to development of ACC's long-term capability, and associated impacts on ACC's profitability, competitiveness and sustainability. The scope of the innovation strategy was significantly broader than the previous Stage 1 program with a whole of business (on- and off-farm) approach.

The primary focus areas were in the key business areas of:

- Operational efficiency (Process focus on energy use, technologies, productivity and materials handling)
- Optimal beef processing including further processing and product innovation
- Innovation resource planning and people capability development
- Sustainability (Environment)
- Feedlot/livestock
- Supply chain innovation (including areas such as eating quality; information management; supply chain alignment; through chain assurance)
- Marketing/product innovation - including integration between CISP and Collaborative Marketing (formerly ICA) programs as appropriate

During the three-year period, a range of strategy development and implementation activities were planned including (but not limited to):

- Documentation of key objectives and innovation initiatives in each of the above key business areas
- Quantifiable innovation performance targets in each of the key business areas, including the development of baselines and measurement systems to monitor progress
- Development of an innovation skills and resources plan to build ACC's capability to effectively implement the innovation strategies
- Initiatives to support the cultural change required across the business to deliver against innovation objectives

To be effective, the CISP will be aligned and integrated with the company's overall corporate strategy and will be integral in enabling your company to successfully achieve its business objectives.

1.3 ACC's Innovation Managers

The ACC CISP program was overseen by a joint ACC/MLA Steering Group and implementation and managed by ACC's Innovation Managers (IMs) with additional internal and external resources as required. This project provided support for two half-time ACC Innovation Manager equivalent to one full time equivalence that was considered necessary to support the volume and complexity of R&D/innovation projects expected within Stage 2 of the program. The ACC Innovation Managers' roles and responsibilities were assigned between two appointed ACC resources. Resourcing of dedicated ACC's Innovation Managers were reviewed at each of six month review meeting by ACC and MLA steering committee. Individual R&D activities was resourced on a case by case basis. It is noted that where external expertise was required to undertake any of the above activities, these will be treated as separate projects and will be contracted under individual schedules in the same way that other innovation/R&D projects are.

The primary focus of the ACC Innovation Manager role was the implementation of the agreed ACC/MLA Innovation Strategy across the ACC business. It is anticipated that Innovation Manager and additional resources were focused particularly on ACC's business priorities and also co-ordinate the operational efficiencies and environmental sustainability areas of the Innovation Strategy.

The major activities that were undertaken by the full-time ACC Innovation Manager include:

- Participated in the development of a comprehensive ACC Innovation Strategy across the key business areas identified above.
- Assisted in developing and monitoring key performance indicators and other measures of impact as agreed.
- Instigated innovation idea generation and filtering and feedback processes with a specific focus on operational efficiency and processing technologies.
- Developed and co-ordinated an agreed suite of R&D/innovation projects.
- Managed and monitored the ACC innovation portfolio to manage expenditure and track benefits from outcomes generated from ACC R&D/innovation projects and activities.
- Participated in the development and implementation of ACC's innovation skills and resources plan.
- Supported and coordination of site project teams.
- Participated in the development and implementation of cultural change initiatives required across the business to deliver against innovation objectives.
- Facilitated external relationship management with research partners, research providers, equipment suppliers, processing sector and value adding sector as appropriate.
- Participated in innovation skills development activities as agreed.
- Prepared regular project reports and quarterly innovation reports.

In addition, the ACC Innovation Manager(s) provided a quarterly report detailing:

- Summary of progress of all R&D/innovation projects underway.
- Update on each of the broad areas of focus within the overall ACC Innovation Strategy.
- Details of baselines, measurement systems and progress regarding key performance indicators related to the three key business objectives detailed above.
- Specific details on change management initiatives underway.

- Specific details on implementation of Innovation Strategy in relation to Operational Efficiency (Process) and new Products across the business.
- A final report provided at the conclusion of the program detailing overall progress against agreed goals and benefits of the program to ACC.

2 Objectives & Key Measures of Success

Overall, ACC was able to demonstrate significant progress in the development of R&D processes and systems. A number of R&D opportunities were identified and implemented to enhance ACC's internal capabilities. Specifically, key focus areas were more formal structures around managing ideas and networking within ACC and with external providers.

3 Key Focus Areas

3.1 Innovation Strategy (ACC CISP Stage 2)

Several priorities were identified to focus on and form the basis of R&D in Stage 2 to implement the agreed R&D priorities. A number of operational efficiencies priorities were identified and several new R&D projects are being scoped. The priority was the development and implementation of optimal beef processing and ramping production to seven days production. Individual strategy planning workshops have been established and conducted at least annually once ACC priority areas were identified. The initial pilot strategic session was an on-farm productivity focus and was conducted with ACC's senior agribusiness group, ACC's IMs and MLA's on-farm program managers. It was subsequently proposed that separate strategic sessions (identified internally as Summits) would be conducted for each of the primary focus areas. NPD, processing, environment and business intelligence are other key focus areas where strategic Summits were deployed at least annually to assist with target setting and identifying the key activities to focus on over the next 12 months. The outcomes of these themed planning sessions formed the basis of six monthly steering committee meetings.

Innovation teams and work groups were formed to manage the R&D priorities. The development of ACC's innovation program was integrated with an existing, established client's improvement pilot program, known as TRACC. ACC launched the idea of integrating the existing TRACC program with CISP across the ACC business at a senior managers' session.

To establish strategic direction for the program, joint ACC-MLA Executive Steering Committee meetings were conducted at least annually to provide strategic direction to a more comprehensive approach to improvement across the business. There was agreement from the outset of the program (i.e. at the commencement of CISP Stage 2) of the Whole of Business Improvement approach with the following primary focus areas:

- Processing Efficiencies (Slaughter, Rendering & Boning)
- Environment Sustainability & Waste Management
- Livestock, Feedlots & Properties
- Business Systems
- Marketing & Product/Packaging Innovation, and
- (underpinned by) People, Capability and Culture

ACC is committed to improving its business every day in order to providing the high quality beef to beef and for its long-term profitability. As a dedicated supplier to Coles Supermarkets and their suppliers, ACC has a strategic business imperative to ramp production and move towards seven-day beef production. Much of the existing current processing and animal production systems are at full capacity. ACC is adopting a number of management initiatives to accommodate their business strategy for ramped production. Innovation and the way that ACC adapts and adopts the required improvements across its business will be critical for ACC to maintain accelerated business performance to remain competitive.

The key to integrative improvement is our People, our Processes and our Systems. Business improvement starts with our People and developing the appropriate skills and capabilities to adopt new systems, technologies and processes. Therefore, a collaborative program between ACC & MLA is aimed at developing and embedding an effective Innovation Program within ACC’s operation across its integrated business with Coles domestically and also aligned with their chilled China strategy.

In May 2015, Australian Country Choice (ACC) and Meat and Livestock Australia (MLA) agreed to progress to Stage 2 of the Collaborative Innovation Program with an expanded focus to encompass the full range of ACC strategic business areas. The expanded Collaborative Program incorporated the full range of ACC and MLA marketing, innovation and R&D activities. To establish strategic direction for the program, a joint ACC-MLA Executive Steering Committee was formed to provide strategic direction to a more comprehensive approach to improvement across the business. The ACC business improvement priorities including the collaborative initiatives were managed by key working groups across the key focus areas (refer to Figure 1).

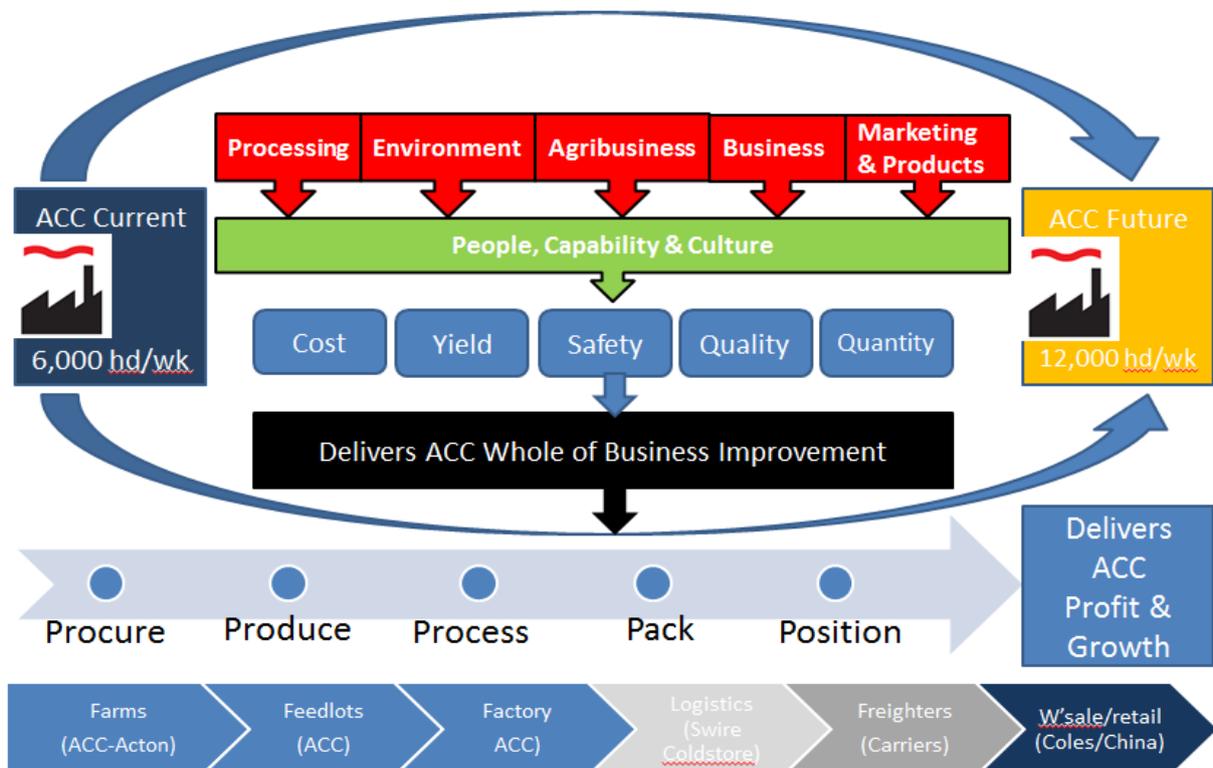


Figure 1: ACC-ACBH Whole of Business Improvement & Growth Plan.

The outcome of the ACC-MLA Collaborative Steering Committee Meeting was to focus on a manageable number of “Big Hit” areas. ACC-ACBH business priority focus areas (Farm, Feedlots, Factory & Supply Chains) with maximum of five “Big Hit” programs, tentatively:

- Data, Insights to Innovation & Objective Carcase Measures (Priority #1 – Factory)
- Factory integrated energy, waste & water management (Priority #2 - Factory)
- Data, Insights to Innovation & Objective Measures (Priority #3 – Farms / Feedlots)
- Beef genetics (Priority #4 – Farms / Feedlots)
- Supply & value chains (Priority #5 – Supply Chains)

ACC supported a “Big Hit” approach to business improvement. It was supported by ACC senior management to have 4-5 “Big Hit” Projects only (ie large strategic projects) to be scoped and implemented at one time to clearly demonstrate a focused approach to the program and show impact. ACC Innovation Managers were assigned to manage and facilitate the R&D portfolios, with support from innovation teams and work groups that were formed across all agreed priority areas.

This approach for managing R&D and new ideas started to gain traction and gather momentum across the business once all GMs across the focus areas had been engaged. A Whole of Business Improvement approach was proposed with the development of draft R&D plans and presented to senior ACC management for endorsement and rollout.

The key components of Whole of the business improvement approach were:

- Strategy statement highlighting key focus areas
- Current & prospective projects & activities (ACC, ACC & MLA and industry funded)
- Targets & goals (12mths & 3yrs)
- Dedicated working groups and members

3.2 Other Key focus area

Significant progress was achieved in the development and implementation of ACC's Collaborative Innovation Strategy Program and including the following key achievements:

- Innovation Managers assigned with agreed roles and responsibilities.
- ACC innovation focus areas and priorities identified.
- Coles improvement program (TRACC) was trialled with ACC and with integration of CISP Stage 2 launched with senior management.
- Developed and implemented a R&D project priority spreadsheet to communicate across the work groups.
- Review and provide ongoing technical input into new R&D proposals and project concepts monitored through ACC R&D project spreadsheet.
- A template developed to evaluate and quantify the benefits of ACC projects.
- Innovation Managers developed a meeting schedule to participate and engage in in regular internal & external networks with service providers to accelerate outcomes for ACC.
- Innovation Managers developed a learning and development plan and attended an Innovation Leadership course.
- An impact evaluation of all ACC R&D and program initiatives completed or currently underway. The benefits & impacts analysis were used to report to ACC to promote the CISP program and drive improvement initiatives.

- An ACC IM attended UQ Innovation Leadership course and completed a group study project activity.
- The initial pilot strategic Summit was a focus on ACC Agribusiness R&D priorities, which was conducted at ACC's Brindley Park Feedlot. The outcome of the first ACC Feedlot Mission process was a detailed action plan for initiatives and new R&D areas. Work groups were formed to support the agreed feedlot mission priorities, and project groups were assigned on a case by case basis. At least four collaborative R&D projects between ACC-ACBH & MLA were developed as a direct result of the Feedlot Mission process. Subsequently, an operating plan was developed and used to manage agreed R&D priorities on a day to day basis.
- The initial pilot Feedlot Mission process was assessed by ACC-ACBH to be a useful approach that was to be replicated in other key focus areas across the business (specifically Factory, Farm & Supply Chain Missions).
- Further Mission processes were scheduled in other key ACC & ACC-ACBH focus areas including Farm, Factory & Supply Chains. Summits were scheduled annually to set the 12 month priorities for each of the key areas.
- Strategic workshops were conducted periodically with CEOs and GMs ACC-ACBH Agribusiness.
- A number of environmental strategy workshops were conducted with service providers including All Energy Pty Ltd, Solar Energy, GHD, Bio-gas, BioCube, DVO, etc) to review ACC's factory energy & waste priorities. A detailed list of prospective projects were identified and any new prospective project concepts were developed in consultation with the provider(s).
- Specifically, the provider for the organic waste project (All Energy) conducted a more strategic mapping exercise of all ACC's waste streams and associated processes.
- An ACC and MLA beef genetics Summit was conducted in Armidale to review beef genetics options for ACC with providers and beef genetics technical experts. The outcome was to form an ACC beef genetic working group to identify priorities to work with MLA on.
- Regular project updates on regen energy options were provided at the Opal Creek feedlot participated by project members and providers where a number of Regeneration Energy and Bio-waste use options were discussed and evaluated.
- IM established an internal ACC process to review a number of technologies and applicability to ACC business improvement, including (but not limited to):
 - Carcase decontamination (Veritide hand-held faecal contamination technology).
 - Walk over weighing (WOW) technology and on-farm objective cattle weighing options presented to agribusiness team
 - USA's Max Garrison presented via telephone conference call a Carcase Performance Co technology currently used in the US only as a turn off potential method for use in ACC's feedlots.
 - There have been several facilitated meetings on new technologies and processes including with Bio-gas, BioCube, DVO.
 - Staff training and mandatory record keeping tools, specifically an integrated staff certification & correlation training system.
 - Integrated data management systems.
 - eNVD clouds and information messaging systems.
 - Solar options with preliminary cost-benefits and feasibility analyses to demonstrate the business cases.
 - Foodsniffer – objective measurement of odour and quality of product.
 - Recycled packaging options.
 - Water re-use (feedlot & factory).
 - Water & waste auto control system.

- Auto-knife sharpening (Highgate) reviewed at the Brisbane Food Technology tradeshow in Brisbane.
- Offal grading with hyperspectral camera technology.
- Hide grading options
- Events, conferences and industry events attended by ACC IMs and ACC representatives.
- A site visit and technology scanning exercise at the Fresh Egg facility at Pittsworth and also Pork growing facilities in Biloela to review biogas options. Site tour were attended by ACC and MLA project team as well as providers.
- Hitachi, MLA and ACC workshops to review current information platforms.

3.3 ACC CISP resourcing and program management

The ACC CISP Stage 2 program was contracted to be co-ordinated by two dedicated ACC Innovation Managers (i.e. 1 FTE). Since the commencement of ACC's collaborative program in May 2015, there were significant company and correspondingly structural changes to the business, including:

- New client contract and arrangements including client directive to double production throughput from 6,500 head / week to predictions to 10,000 head / week.
- JV with Acton Beef (ACBH) assets including properties and herd.
- Restructure of senior management aligned with ACC and ACBH businesses.
- Acquisition of new and critical departments and accountabilities including metrics to build on ACC's existing data capture and analyses capabilities.

The proposed ACC's Whole of Business Improvement plan required resourcing and management by ACC aligned with recent changes to the business (i.e. since commencement of the program) and consistent with the coverage of key focus areas across the business, the extent of work and the required skills and capabilities. Key resourcing considerations included:

- ACC IMs allocated to support alignment to enhanced business improvement priorities (increased to 1.5FTE from contracted 1FTE) to ensure adequate coverage and capabilities across ACC / ACBH's value chain both on the ramped agribusiness and production sides.
- Work groups and key accountabilities assigned to key focus area.
- With data management and insights identified as critical, it is proposed that two innovation officer trainees (i.e. Young Food Innovator's trainees) one on the supply side and one on the demand side of ACC's supply chain.
- Internal ACC project managers assigned as required to facilitate ACC projects, pips or other partnership projects.
- MLA specialists and external providers to be brought into the program as required.

ACC had a number of existing improvement processes, systems and programs across the business. However, the current apparent issue would appear to be that there are many adhoc and disconnected, standalone improvement programs (eg TRACC program) and activities being carried out within the business. Therefore, it is proposed that innovation at all levels there it be R&D projects from all areas across the business, improvement initiatives and major transformational innovations be managed with one ACC approved integrated innovation management program.

4 Key Achievements & Outcomes

4.1 Innovation Strategy & Priorities

The outcome of the initial ACC-MLA Collaborative Steering Committee Meeting (August 2015) was to focus on:

- A manageable number of big hit areas. ACC-ACBH business priority focus areas (Farm, Feedlots, Factory & Supply Chains) with maximum of 5 “Big Hit” programs, tentatively:
 - Data, Insights to Innovation & Objective Carcase Measures (Priority #1 – Factory)
 - Factory integrated energy, waste & water management (Priority #2 - Factory)
 - Data, Insights to Innovation & Objective Measures (Priority #3 – Farms / Feedlots)
 - Beef genetics (Priority #4 – Farms / Feedlots)
 - Supply & value chains (Priority #5 – Supply Chains)
- Contribute to development and implementation of ACC’s Collaborative Innovation Strategy Program including the following:
 - Identification of the innovation focus areas and priorities for ACC.
 - Develop roles and responsibilities required to drive innovation priorities including the Innovation Manager.
 - Manage existing collaborative R&D projects.
 - Review and provide technical input into new R&D proposals.
 - Evaluate and quantify the benefits of ACC projects.
 - Developed a meeting schedule and participated in regular internal & external networks to accelerate outcomes for ACC.
- Tentative “Big Hit” business improvement programs were managed using key measures of success.
- Business improvement focus areas included “Supply and Value Chain”. Deployment of two MLA co-funded ACC-ACBH Innovation Officers roles. These position were created as part of the Young Food Innovator’s Trainees program on the demand & supply sides of ACC and supported by internal & external mentors (i.e. MLA & industry representatives).
- Designed and developed enhanced reporting capabilities of the BI areas including “Big Hits” aligned with ACC-ACBH KPIs for MD & CEOs to evaluate success in BI areas and across the business.
- Regular on-farm and processing Mission workshop(s) were conducted at least annually to develop BI strategies, priorities & R&D projects / activities for each prospective 12 months period.
- Approval and agreement by ACC-ACBH-MLA steering group to continue to the next phase of the program (ie. Review supporting a “Go”) contingent on:
 - Above conditions & actions being met
 - Current resources in ACC–MLA collaborative program including IMs assessed to be adequate & well serviced for BI focus areas & activities

The following Collaborative projects and priorities between ACC and MLA were undertaken:

- P.PIP.0454 - Pre-feasibility Study for Value Adding of Organic Wastes
- P.PIP.0311 - Feasibility study into the use of reusable plastic totes in the meat industry
- P.PIP.0472 - Development of a prototype odour test rig concept to characterise

- P.PIP.0477 - ACC Organic Waste Value Adding and Cost Reduction
- P.PIP.0508 - Feasibility of an Integrated and Automated Bio-energy and Waste Water Treatment Plant
- P.PIP.0513 - ACC Processing Innovation Officer (YFI trainee - ACC Agribusiness Young Food Innovator trainee (RnD4Profit insights2innovation))
- P.PIP.0514 - ACC Agribusiness Innovation Officer (YFI trainee - ACC Agribusiness Young Food Innovator trainee (RnD4Profit insights2innovation))
- P.PIP.0515 - Feasibility study of BeefSpecs optimisation model to ACC's feedlot (Stage 1)
- P.PIP.0525 - ACC Recovery & Recycling Feedlot Trough Water
- P.PIP.0526 - Cost-Benefit Analysis and Preliminary Design of Energy Technologies for Opal Creek Feedlot (OCFL) and Emissions Reduction Fund Opportunities
- P.PIP.0532 – Feasibility and evaluation of water jet cutting in ready-retail beef and lamb processing (Stage 1)
- P.PIP.0533 - Feasibility and review of on-line grading of beef hides at ACC to create greater value across the entire supply chain (Stage 1).
- P.PIP.0543 - Predictive modelling pilot trial on beef products through a retail supply chain (beef)
- P.PIP.0545 - DAF Float Processing and Hydrocyclone Trial

4.2 Innovation Processes & Management

Overall, ACC made significant progress in development of R&D processes & systems. The primary focus of the Stage 2 program was on identifying key business improvement areas and through Strategy development exercises with on-farm and processing operations of the business (piloted firstly in feedlot and farm parts of the business). Specifically:

- Develop a blueprint to be applied across all areas of the business (including farm & supply chain).
- Innovation teams and work groups with emerging champions to lead were formed to manage each of the ACC business improvement priority areas.
- ACC Whole of Business Improvement plan including key focus areas was subject to input and approval by ACC-MLA CISP steering group to form the basis of 12 month R&D cycles.

The key achievements of the three-year collaborative program were:

- Established TRACC improvement program being piloted at ACC as their client's endorsed improvement initiative identified existing innovation enabling systems to support the CISP program. ACC's Collaborative program was resources using existing R&D personnel, team and structures.
- Ideas management processes developed across the business in a co-ordinated way using existing structures and processes that already exist through TRACC and other improvement initiatives. A more co-ordinated approach was achieved and regularly reported to ACC senior management group.
- ACC Totes project was a high priority for ACC and its client with significant progress made in the feasibility analyses and a cross business project group involving ACC, Coles, Swire, MLA and APEX.
- An initial ACC/MLA steering committee meeting was conducted to review the outcomes of the first six months and setting goals and annual targets. The ongoing annual review meetings formed the critical decision and agreement of the priorities and focus areas of the CISP program for 12 months scopes.

- ACC developed key project and ideas tracking system to manage R&D aligned with company priorities.
- Livestock Data Link (LDL) being piloted by ACC for the past three years was demonstrated to a working group with the outcome being an ACC adoption proposal. Due to recent structural changes in the way ACC's client manages its on-farm production, any future LDL work is required to be channelled through the client. ACC's client and MLA completed a producer forum with 14 producers seeking input in to critical elements of a carcass feedback system.
- Data management and analyses was a strategic imperative for ACC. ACC has engaged right across the business including on-farm and agribusiness side of the business.

To date the program has delivered and derived the following benefits for ACC:

- 14 collaborative projects completed or currently underway.
- Proposed ACC whole of business improvement approach in place with work groups forming across the business to focus on feedlot, farm and environment and sustainability priorities.
- More than 60 direct business improvement inquiries have been addressed through MLA & external networks including carbon emission credits and water and waste management options to name a few.
- Strategic sessions with MLA technology managers & environmental specialists to update on latest developments and defining opportunities for ACC annual R&D investment planning.
- Completion of collaborative R&D projects (pip.0454, pip.0472, pip.0477 and pip.0311) with ACC reviewing recommendations for improvement in water, waste and energy management and also product handling (ie plastic totes).
- Developed an ACC-ACBH Practical Problem Solving Tool (Refer to Appendix, Section 7.2), with piloting of the tool amongst specific test groups currently underway.
- A supply chain project was completed with ACC and the client, which now allows shelf-life of beef and lamb products to be reviewed using MLA's shelf-life model.
- A beef genetics workshop was conducted in Armidale with providers including CSIRO, Beef Genetics and MLA. The outcome was to form an integrated ACC-ACBH beef genetics group. Planning and discussions are currently underway to identify ACC's priorities in beef genetics. Work in progress.

4.3 Issues & opportunities

- Since the commencement of ACC's collaborative program in May 2015, there were significant company and correspondingly structural changes to the business, including:
 - New client contract and arrangements including client directive to double production throughput from 6,000 head / week to 12,000 head / week.
 - Acquisition of Acton Beef assets including properties and herd.
 - Restructure of senior management aligned with ACC and ACC-Acton businesses.
 - Acquisition of new and critical departments and accountabilities including metrics to build on ACC's existing data capture and analyses capabilities.
 - Resourcing of the program activities continues to be a challenge. ACC Innovation Managers appointed, and innovation teams and work groups being formed across all agreed priority areas. ACC-ACBH currently has two (2) dedicated ACC Innovation Managers (1 x FTE) with Process IM at 0.5FTE (and Agribusiness IM at 0.5 FTE. Assigned work groups with innovation champions are being formed for each key focus area (across the six key focus areas identified)
- The resourcing and management plans were consistent with the business improvements plan, required skills and capabilities and scheduled business activities over the next 12 months. The

program resources were managed on a needs basis, and for future R&D planning were proposed to be self-managing.

4.4 ACC's CISP Yr 2015/18 Objectives & Goals

The proposed objectives and goals for Stage 2 were:

Objectives / KPIs	Measures (2015/18)
1) Develop & engage of Whole of business in ACC integrative business improvement approach.	<i>ACC Whole of Business Improvement plan & allocated resources endorsed by ACC/MLA steering group. ACHIEVED</i>
2) Building on ACC's existing data capture and management system to create greater value and returns across ACC's business.	<i>ACC Innovator's trainees with assigned projects deployed (up to two Young Food Innovation trainees). ACHIEVED Review BeefSpecs, LDL and/or customised analyses to enable ACC's real-time cost management capability. ACHIEVED</i>
3) Identify a suite of red meat opportunities to increase growth, sustainability and profitability of the business.	<i>Facilitated customised NPD workshops (min 2) to review latest consumer trends and market insights resulting in new beef products to market. ACHIEVED</i>
4) Develop the required skills and implement systems and processes to support ACC improvement focus areas and priorities.	<i>Innovation & leadership training for ACC's Innovation managers, working group members and Innovation officers consistent with approved priorities. ACHIEVED</i>
5) Develop & implement systems to manage ideas and improvements across the business.	<i>Develop and implement project management systems to manage work schedules and resourcing of ACC priority projects across the business. ACHIEVED</i>

4.5 ACC's Data Capture Strategy

4.5.1 Data priorities & imperatives

Australian Country Choice (ACC) has a strategic imperative to double production from 6,000 head per week to more than 12,000. Data measurement and management systems will be critical to the whole of business improvement approach that ACC is implementing. ACC's vision is to develop and build on current systems and capabilities in data measurement and management to facilitate in real time cost management across the business (refer to Figure 2).

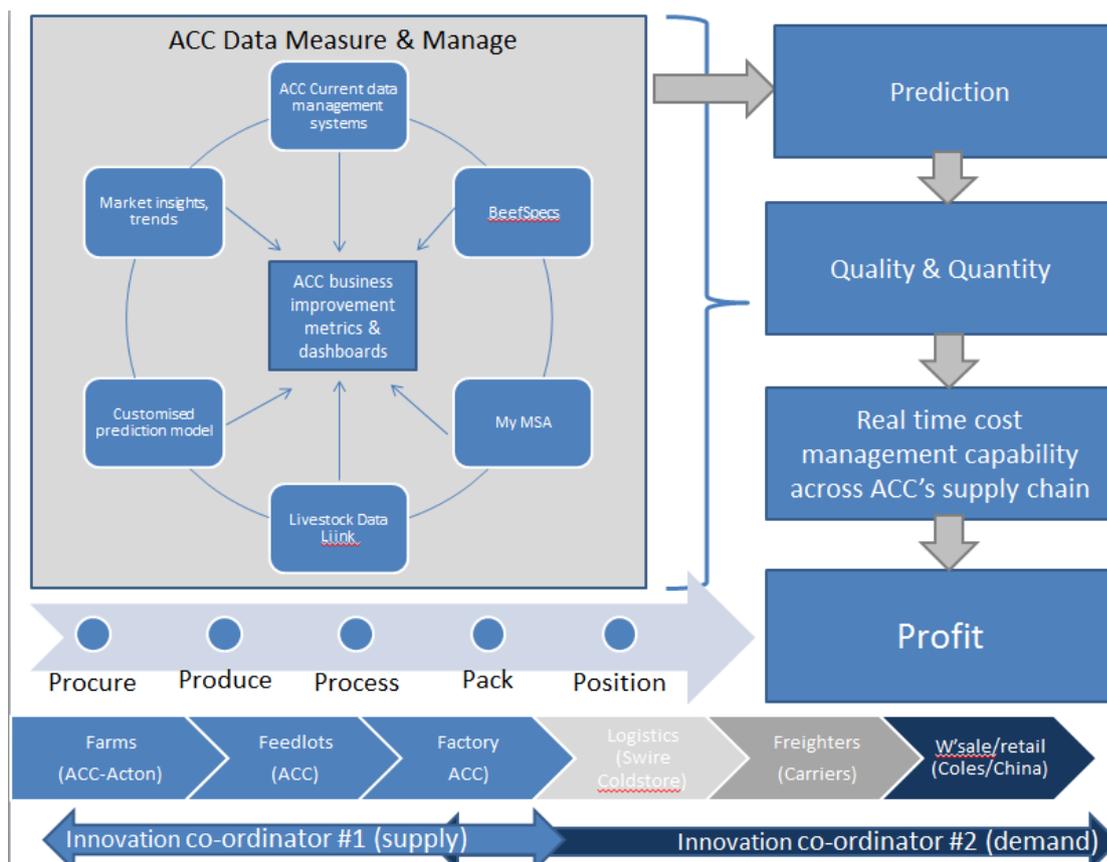


Figure 2: ACC Data Measure & Manage strategy

4.5.1 Objectives & desired outcomes

The objectives of ACC's data priorities and imperatives were:

- Evaluate current red meat industry data capture, analysis and management systems used across the red meat supply chain in livestock production, feedlots, processing, logistics, wholesaling and or retailing.
- Evaluate and continue to develop BeefSpecs, Livestock Data Link, My MSA for customised application across the ACC supply chain(s).
- Using data and information generated in the business to provide insights to inform supply decisions that create new business and markets from livestock production through to primary processing.
- Develop networks, skills and capability to collect and collate data and information to make business decisions and value chain design innovations from insights.
- Support and align to MLA-ACC Collaborative Innovation Strategies Program (CISP) and ACC's whole of business improvement approach and provide support to the current ACC business improvement team.
- Implement Innovation Officers (maximum of two FTEs) that will work on specific food value chain innovation, marketing and insight projects that are agreed by ACC and the Rural RD4Profit Insights Project Steering Committee (led by MLA) and participate in reporting lessons learnt analysis for attracting and retaining young innovators to Agrifood sector.

4.5.2 Scope of work

The focus of the proposed program will be to build and deliver strategic value chain thinking and capabilities on livestock production systems and meat procurement/scheduling and grading informed by retail and end customer needs, specifically:

- Value based marketing approach from farm gate, to feedlots and through to primary processing systems that encompass ACC-Acton domestic and China export supply programs using demand driven insights and enabling platforms such as MSA.
- Focus on production potential through developing methodologies on collection, capture, analysis and feedback of livestock and primary processing data and working groups as part of value chain design.
- Preliminary analyses of ACC feedlot & production data sets and opportunities to integrate new systems and build on current ACC data capture systems.

5 Conclusions

In May 2015, Australian Country Choice (ACC) and Meat and Livestock Australia (MLA) agreed to progress to Stage 2 of the Collaborative Innovation Program with an expanded focus to encompass the full range of ACC strategic business areas. The expanded Collaborative Program incorporated the full range of ACC and MLA marketing, innovation and R&D activities. To establish strategic direction for the program, a joint ACC-MLA Executive Steering Committee was formed to provide strategic direction to a more comprehensive approach to improvement across the business. The agreed ACC business improvement priorities including collaborative initiatives were managed by key working groups across the key focus areas.

The purpose of this project was the development and implementation of a Stage 2 Collaborative Innovation Strategy between Australian Country Choice and Meat and Livestock Australia. To be effective, the CISP was aligned and integrated with the company's overall corporate strategy and was integral in enabling the company to successfully achieve its business objectives. The ACC innovation priorities were integrated into the company's overall business strategy and included measureable performance indicators, which identify the contribution of innovation to the bottom line and achievement of key business objectives.

Overall, ACC made significant progress in development of R&D processes and systems. A number of R&D opportunities were identified and implemented to enhance ACC's capability. Specifically, key focus areas were a more formal structure around managing current and new project concepts within ACC and with external providers.

6 Recommendations / Next steps

Australian Country Choice and Meat & Livestock Australia have agreed to progress a Stage 3 Collaborative Co-innovation Program over a three-year period. The program is designed to support the development and implementation of ACC's growth strategies in both the domestic and global markets to be achieved via a range of innovative products, packaging, processes and new business model concepts. The specific focus of the program will be on insights and design led innovation approaches to New Product Development (NPD) and in particular High Value beef exports. It is

noted that in addition to the development of new high value products to meet customer demand, the program may also extend more broadly into the ACC's business activities where opportunities to innovate red meat markets are identified.

A range of new product and business growth activities are planned during the three-year period (but not limited to):

- Market and insights intelligence and analysis in targeted high value markets
- Implementation of design-led approaches for New Product Development (NPD)
- Scanning exercises of new innovative product, packaging, technology and processes and business model designs
- Trade shows and industry events to evaluate new innovative products
- Capture, collate and analyse consumer and market trend data to provide insights to new products and packaging to meet customer demand
- Insight and innovation capability and skill development
- Product evaluations and testing
- Study tours of key international and domestic retail and food service markets of innovative products, processes, technologies and packaging
- Facilitated workshops on technologies, processes and packaging involving suppliers and technical experts

The major activities to be undertaken by the ACC's Product Innovation Manager include:

- Participate in the development of an ACC Innovation Strategy to underpin a high value red meat growth strategy.
- Develop, evaluate and implement design-led methods for New Product Development (NPD) and new services for "value adding".
- Instigate innovation idea generation and filtering and feedback processes with a specific focus innovative product, processes, packaging and value chain concepts.
- Develop and co-ordinate an agreed suite of R&D/ innovation projects.
- Manage and monitor the ACC spreadsheet to manage expenditure and track benefits from outcomes generated from ACC RD&E/innovation projects and activities.
- Participate in the development and implementation of an ACC innovation skills and resources plan as required.
- Support and coordination of site project teams as required.
- Participate in the development and implementation of cultural change initiatives required across the business to deliver against innovation objectives as required.
- External relationship management with research partners, research providers, equipment suppliers, processing sector and value adding sector as appropriate.
- Active participation in the Insights to Innovation events and network meetings.
- Participate in other innovation skills development activities as agreed.
- Participate and/or facilitate in independent cost benefit analyses as required.
- Assist in developing and monitoring project performance indicators and other measures of impact as agreed.

The Collaborative Value-adding Co-Innovation Program will be overseen by a joint ACC / MLA Steering Group and implementation will be managed by a team comprised of ACC, MLA and external resources as required. This project provides support for a full-time (i.e. 1 FTE) ACC Product Innovation Manager for an initial period of three years with an option to extend to a second 3-year term based on overall progress of the program and projects. As the program strategy evolves, it is anticipated that specific R&D projects will be developed, and additional resources to support these projects will be considered as required. Each individual R&D project will be contracted via a separate schedule to be attached to the Collaborative Head Agreement.

7 Appendix

7.1 Historical timeline of Australia's Country Choice

Table 1: Historical timeline of Australia's Country Choice in beef production and processing (Properties & Livestock)

i)	ACC – Historic Timeline (Properties & Livestock)
1958	Lee Family group entity established
1968	Commenced commercial cattle breeding & fattening operations
1972	Pioneered & developed one of Australia's first cattle feedlots
1974	Commenced livestock supply to Coles
1975	Purchased second commercial cattle operation
1975	Purchased second commercial cattle operation
1975 - 1989	Commenced contracted supply of livestock over-the-hooks to Coles
1989 - current	Purchased & developed the Brisbane Valley feedlot at Coles for dedicated supply
1998	Purchase Babbiloorra Station - Augathella (breeding & backgrounding)
1998	Purchase Redford Station - Mungallala (breeding & backgrounding)
1999	Purchase Wellclose Station - Adavale (breeding & backgrounding)
2000	Purchased Chesterton Station - Augathella (breeding & backgrounding)
2000	Purchase Niella property - Roma (farming & backgrounding)
2001	Purchase Listowel Valley - Adavale (breeding & backgrounding)
2001	Purchased Mooga South - Roma (farming & backgrounding)
2001	Purchase Black Mountain & Gifford - Adavale (breeding & backgrounding)
2002	Purchase Bundilla – Roma (farming & backgrounding)
2002	Lease Mt Tabor Station - (indigenous Land Council) Augathella (breeding)
2004	Leased Dooloogarah – Augathella (breeding & backgrounding)
2004	Leased Mooga Hills - Roma (farming & backgrounding)
2004	Management lease YoYo Park - Morven (backgrounding)
2004	Management lease Oakwood - Augathella (backgrounding)
2005	Major capacity expansion – Brindley Park Feedlot (15,000 scu's)
2005	Purchased Hay Roma - Roma (irrigated fodder / farming & backgrounding)
2006	Leased Gunnadoo - Collinsville (backgrounding)
2010	Leased OK - Roma (farming & backgrounding)
2010	Implementation of no added hormone program across livestock supply chain
2011	Roma Cattle Co - purchase Mooga Hills (farming / backgrounding)
2011	Roma Cattle Co - purchase Mooga West (backgrounding)
2011	Roma Cattle Co - purchase Boomerang (farming / backgrounding)
2011	Roma Cattle Co - purchase Dungowan (breeding / backgrounding)
2015	Australian Cattle and Beef Holdings

Table 2: Historical timeline of Australia's Country Choice in beef production and processing (Beef processing)**ii) Australian Country Choice - Historic timeline Beef Processing**

1989	Annual rolling Carcass supply agreement to Coles via third party provider
1995	Commenced dedicated Boning operations - in own right (Cannon Hill)
1995	Coles relocate their state meat office & staff to ACC at Cannon Hill
1996	Purchased Coominya abattoirs (adjacent BVCC)
1997	Resumed contract slaughter and own boning operations - Cannon Hill
2000	Purchased Cannon Hill site and operations from Q-Govt
2000	Commenced Fresh Sausage manufacturing for Coles
2000	Commenced Pumped meat manufacturing for Coles
2001	Commenced Certified Organic processing for Coles
2001	Constructed new Slaughter floor complex
2001	Constructed new Rendering facility & Bio filter
2001	Commenced exporting and external sales program
2001	Commenced fresh shelf ready Hamburger manufacturing for Coles
2001	Commenced fresh beef Retail Ready packing for Coles
2003	Commissioned integrated gallery to Swire Cold Storage distribution
2003	Refurbished further processing & value add facility
2004	Commissioned new Sausage & Pumped meat facility
2005	Commission shelf ready offal packaging line for Coles retail distribution
2005	Commission crumbing & coating line shelf ready packaging and retail distribution
2005	Commissioned full Traceability boning room
2006	Commission Retail Ready cutting and packaging plant Stage 1 of 3
2010	Major refurbishment of beef boning room
2011	Implementation of no added hormone beef processing program
2011	Implementation of set weight processes for retail ready packing
2011	Implementation of raising claims for fat content on labels for retail ready mince products
2011	Program implementation for Coles Finest branded beef products for northern distribution
2011	Commenced national coordination role for export & external sales
2012	Program implementation and product launch for Drovers Pride branded beef product range
2015	Kill floor Upgrade
2015	Environmental Services Upgrade

7.2 ACC Practical Problem Solving Tool

Australian Country Choice

Practical Problem Solving Worksheet

PROJECT TEAM
 Leader:
 Members:

Scope: In: _____ Out: _____

Clarify the Standard (Ideal Situation): _____

KPI Impacted: _____

KPI- Expected Improvement: _____
 from: _____
 to: _____

Cost of Problem / Impact of Situation: _____

Determine Possible Causes - Fishbone Diagram (Brainstorming) - Map the process flow (Draw up)

People

Measurement

Environment

Machine

Method

Material

Define Problem (Be specific)

Possible Causes

A	G
B	H
C	I
D	J
E	K
F	L

Remember the Rules:
 Go to the **Actual Place** where the problem occurred (Goshima).
 Look at the **Actual Problem**.
 Review the **Actual Reality**, do not make assumptions.
 Use the **Cross Functional Team**, all ideas are good ideas.
 Test and **Confirm** the conclusions.

Problem to tackle: _____

WHY #1: _____

WHY #2: _____

WHY #3: _____

WHY #4: _____

WHY #5: _____

TEMPORARY SOLUTION _____
 Date: _____

FINAL SOLUTION - PERMANENT CORRECTIVE ACTION _____
 Name: _____ (responsible)
 Date: _____

#	ITEM / ACTION	WHO	DUE DATE	STATUS
				⊕
				⊕
				⊕
				⊕
				⊕
				⊕

6. Implement Solutions (determine frequency and format to make the implementation process, in weekly meeting.)

7. Monitor Performance (determine measurement and reporting tools and establish weekly regular performance trend report format.)

8. Standardise and Share the Learnings (ensure process changes are made formally, using formal documentation (e. SOP))

Are the solutions robust enough to protect against a further failure? **Y/N**

Has the documentation been updated to reflect all changes made to the process? **Y/N**

Have all the Operators been made aware of the changes made and related to the new standard? **Y/N**

Can any other areas benefit from having these countermeasures communicated to them? **Y/N**



Notes

Point of Cause: Go to the location of the problem and confirm the exact area within the process that the issue occurs. If the issue is controlled at this point, would defect be passed onto the next process?

July	August	September	October	November	December	January	February	March	April	May	June
Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa	Su Mo Tu We Th Fr Sa			
1 2 3 4	2 3 4 5 6 7 8	1 2 3 4 5	4 5 6 7 8 9 10	1 2 3	1 2 3 4 5	1 2	1 2 3 4 5 6	1 2 3 4 5	1 2	1 2 3 4 5 6 7	1 2 3 4
5 6 7 8 9 10 11	9 10 11 12 13 14 15	6 7 8 9 10 11 12	11 12 13 14 15 16 17	8 9 10 11 12 13 14	6 7 8 9 10 11 12	3 4 5 6 7 8 9	7 8 9 10 11 12 13	4 5 6 7 8 9 10 11 12	3 4 5 6 7 8 9	6 7 8 9 10 11 12 13 14	5 6 7 8 9 10 11
12 13 14 15 16 17 18	16 17 18 19 20 21 22	13 14 15 16 17 18 19	16 17 18 19 20 21 22 23 24	15 16 17 18 19 20 21	13 14 15 16 17 18 19	10 11 12 13 14 15 16	14 15 16 17 18 19 20	13 14 15 16 17 18 19	10 11 12 13 14 15 16	15 16 17 18 19 20 21	12 13 14 15 16 17 18
19 20 21 22 23 24 25	23 24 25 26 27 28 29	20 21 22 23 24 25 26	19 20 21 22 23 24	22 23 24 25 26 27 28	20 21 22 23 24 25 26	17 18 19 20 21 22 23	21 22 23 24 25 26 27	20 21 22 23 24 25 26	17 18 19 20 21 22 23	22 23 24 25 26 27 28	19 20 21 22 23 24 25
26 27 28 29 30 31	26 27 28 29 30	27 28 29 30	28 29 30 31	29 30	27 28 29 30 31	24 25 26 27 28 29 30	25 26	27 28 29 30 31	24 25 26 27 28 29 30	26 27 28 29 30	26 27 28 29 30