final report

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Implementing a culture driven innovation framework in an Australian meat processing plant

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Abstract

This project seeks to understand the cultural barriers to innovation and develop a systematic approach to drive innovation within the business while simultaneously working to overcome the existing barriers. The available innovation and a firm's ability to innovate are key profitability and productivity drivers (O'Donnell 2014), so why is business innovation difficult for our value chains? The hard systems thinking approach, or the reductionist approach, to innovation can lead to significant difficulties where the individuals who create the innovation cannot understand why it is not adopted. Innovation for Plant A can be optimised with a Systems Leadership approach. The process is a focus on the introduction of a specific skill set combined with the knowledge of available innovations and an innovation framework developed by the business for the business. Plant A introduced an innovation framework, a systems approach to managing the complexity of innovation for their business. This process begun through this project with a view to a final implementation in future projects. The initial 6-month project has been flagged to be followed by an implementation phase to embed the process within the business.

The innovation process has been driven by several key theories that underpin the innovation framework development. Firstly, culture underpins an organisation's ability to develop detailed systems that underpin behaviour that produce the organisational symbols and mythologies. Without this culture, the organisation, through its employees, would find it difficult to change. The second component of the theory underpinning the innovation framework is that change is driven by employees at different levels and staff engagement is a key practice in the implementation of this project. Finally, there is no one-way innovation that can occur inside complex organisations. Innovation frameworks must be flexible enough to deal with multidimensional projects and allow those projects to be driven by plant staff.

The project has achieved the project outcomes by completing the culture audit at Plant A and Plant B, the development of the systems design processes and the implementation of the action learning sets to underpin systems implementation. In addition to these project outcomes the team also implemented an innovation leadership program through a Certificate IV in Leadership and Management. The outcome of these individual subjects was a significant number of projects being developed for the innovation framework.

The results of this culture audit found a significant difference between organisations that have received Systems Leadership training and those who have not received this training. Those who have received Systems Leadership training are ready to receive further engagement in the development of an innovation framework. The quantitative data also outlined the areas for improvement that are required for an innovation framework to be delivered.

In developing an organisational innovation system, the project team set up the strategic framework that underpinned the innovation system. The framework included the context and purpose of the system and outlined the current state of the organisation and the desired future state for innovation in business. The aim of the research was to create a desired future innovation state that exists beyond the project life within a system that is effective and approved, a framework driven by staff.

The project put in place three distinct groups within the organisation with three very different roles. Firstly, an Integration Team whose role is to both facilitate and take an organisational perspective of all innovation projects developed. Secondly, a Systems Design Team whose role is to ensure that the innovation system is both effective and authorised within the business. Finally, a Systems Operation Team whose role is to facilitate innovation within the business for consideration by the Integration Team. These teams will be essential in the final stage of the project underpinned by action learning sets, training and mentoring to enable the innovation framework. This was a unique structure for this organisation that will change depending on the individual business.

Executive summary

Meat processing plants form a part of very complex food businesses that have numerous key drivers that enhance productivity and profitability. These key drivers are enhanced through innovation. This project engages all staff in the business to build productivity and profitability, and a key to this process is utilising the teams within the facility. To underpin this behaviour, systems need to be developed that shape how people see the business through symbols and talk about the business through mythologies. Symbols, systems, behaviours and mythologies drive the culture of the business, enhancing innovation.

The project was designed to create a pull for innovation, rather than pushing innovative ideas onto the organisation and its employees. This was to create an atmosphere where employees could put forward their ideas to be considered in a constructive way.

A common theme within meat processing is to utilize hard systems thinking to develop solutions for a complex problem. Simple answers to complex problems often fail as they do not provide a complete solution. This is often due to the fact that the answer to complex problems rely on an interdependency between technical, commercial and social drivers. Hard systems thinking relies on technical solutions to problems.

The project sought to engage with all levels of the plant to implement innovative thinking driven by behaviours and systems. Key to the understanding was to measure the culture of the business through an audit so as to understand how innovation should occur. Secondly, to engage with leaders of the business at all levels to interact with the project. Thirdly, to develop a system that works at the plant and is owned by the staff at the plant. Finally, implement the system into the plant and mentor all the staff utilising the system. The project timeframe did not allow for the embedding of the system into the day-to-day operation of the plant.

The project achieved a number of key milestones throughout its life. Firstly, there was a significant bottleneck inside the plant where over 40 projects were stalled. Projects were stalled as their development was only occurring from a technical perspective. Essential to the development of a project is the interdependency between technical, commercial and social elements. The project team worked with staff within multidisciplinary teams to develop projects for evaluation. The second phase of the project was to use action learning sets to develop a range of projects for the plant. Utilising the training programs and action learning sets, 19 projects were developed for evaluation by the Integration Team. The target return on investment for all projects was 20%.

The project team has expanded on the initial methodology outlined in the proposal to include a top-down approach and a longer embedding process for the system. Essential to the operation of this methodology is a top down bottom up approach within each of the plants. This allows all team members to operate at their level of work to achieve productivity and profitability outcomes for the business. At the core of this project we have people improving their individual performance through projects that are integrated by plant and business management at a plant and business level.

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1 Background

The project is underpinned by theory, yet its application is driven by practice throughout Plant A. Essential to this delivery at the ground level was the relationship between the project team and the key staff in the Systems Operation Team, the Systems Design Team and the Integration Team inside the plant. This relationship is grounded through numerous events to develop the culture and leadership potential of the staff at Plant A. It has been hypothesised by the project team that it would be difficult to introduce this innovation program methodology into an organisation that was not ready in a cultural sense.

Future programs have been designed to also include the current industry standard leadership skill set and culture skill set to underpin the innovation program implementation. The project team have selected Plant A and Plant B (both plants are based in Australia processing beef) due to the training methodologies implemented at the two plants. Where Plant A has had a focus on leadership and culture through training, Plant B has not had such a focus.

The research and practice of innovation management have largely been influenced by uniform sequence of phases that result in a project being approved or not approved (Salerno 2014). It is argued in this project that innovation can take a number of pathways based on an employee driven innovation framework, this project links the work of Hogan (2015), Salerno (2014) and Gressgard (2014) to form the hypothesis that employees, depending upon the project, can drive innovation through a number of pathways underpinned by the culture of the organisation. These three theories will be discussed individually. It is essential that we break free from the theoretical context and focus heavily upon the practical application of the innovation framework to Plant A. The outcomes from this project can act as a case study for wider Australian red meat industry to design and deliver capability change.

1.1 Culture Driven Innovation

Hogan (2015), in testing Schein's model, looks at organisational culture, innovation and performance and the opportunity to use the model to foster innovation thinking within the business. Within a culture driven organisation such as Plant A, we utilised the application of Schein's model into a Systems Leadership theory framework. This allows us to breakdown the elements of innovation into symbols, mythologies, systems and behaviours and then further breakdown these elements to understand the areas we must focus upon to improve the innovation process. We can see in the qualitative and quantitative analysis clear differentiations between organisations that are culture driven and organisations that are not culture driven. We can also see areas that organisations are working well in, and areas that are not working as well. In breaking down these layers we can support innovation measures inside business performance and foster an innovation behaviour driven by the staff of that organisation.

Our aim is to utilise this theory to assist Plant A to drive the key elements of innovation from the ground up with the support of the Systems Operation Team, the Systems Design Team and the Organisational Integration Team.

1.2 Innovation Methodologies

As discussed by Salerno et al (2014), innovation is traditionally understood as a series of steps leading to an outcome where an idea is generated, selected, developed and launched, diffused or sold. We propose in this project that there is no clear one-way for innovation to occur inside an organisation, it is a conversation to be held inside the organisation on what is the best method to

innovate (Cooksey 2011). This also breaks the mould of the expert model, where ideas are internally or externally sourced and a concept is provided by the employee with clear communication to other areas of the business.

Plant A is a highly trained meat processing plant where employees can successfully articulate opportunities for their individual workplaces (Appendix 1). The project utilised these skills to allow staff to adapt to the innovation framework that best suits their individual project or identify points of chaos within their work area. The project provided skills training to each of the employees in the Systems Operation Team to innovate their individual workplaces to the organisation while considering the effect on other work areas throughout the plant.

1.3 Employee Driven Innovation

Gressgard et al (2014) considers a number of innovation engines to drive the public and private organisations. A number of perspectives of innovation are discussed including user or customer-based innovation, design driven innovation and employee driven innovation (EDI). The research considered these as not being a mutually exclusive framework, rather one perspective may in fact take the lead in designing a fruitful organisational innovation program. In setting the scene for this innovation engine they consider the sources of innovation as being both external and internal knowledge generation within an open innovation context. Crucial to this is the organisation's ability to acquire, share and apply knowledge to points of chaos inside the organisation.

At Plant A, the organisation must clearly communicate innovation options within the correct framework with one crucial point. This project utilised an employee driven innovation framework as the lead perspective. The management of this innovation lead to the integration into the business through the Integration Team who had the role of dovetailing the numerous organisational innovation options into a holistic organisational innovation framework.

1.4 Systems Thinking

The systems approach to innovation can exist in several states depending upon the type of organisation and its complexity (Jackson 2007). Simple approaches to innovation fail to account for organisational complexity and the chaos that can exist inside that organisation. The implementation of equipment within a meat processing plant may fail if we don't consider issues such as the number and specified grid for the cattle introduced, the people required to operate, oversee and manage the facility and the financial interdependencies that occur because of these variables. The more complex an organisation is, and the greater the number of departments within the organisation, the more difficult it is to introduce innovation.

The use of theories, such as complexity theory, allows us to look at the causes of the problems rather than the symptoms associated. Meat processing plants are highly complex organisations that sit inside much larger, more complex national or global businesses. The notion that an engineering approach and simple solutions can create answers where complex chaos exists means that sometimes we are creating greater complexity.

1.5 Total Factor Productivity

The use of total factor productivity (TFP) (O'Donnell 2014) allows us to understand the economic determinants of productivity and profitability. TFP approaches organisational productivity by breaking down its elements into the scale of the organisation, the scope of the organisation, the environment in which it exists, the innovation available to the organisation and the organisation's ability to innovate. An individual can affect organisational performance by understanding available

innovation and effectively implementing this innovation into the organisation. In turn, the culmination of this innovation affects the organisational scale and scope and the environment in which it exists and in effect, this productivity enhances profitability.

The individual's ability to improve the organisation is premised on that individual's ability to understand complexity and understand the drivers of productivity, apply knowledge and systems in understanding the opportunities to improve and finally, implementing those opportunities within an organisational framework. To understand these factors, we must seek to understand the organisation and the elements that drive profitability.

1.6 Systems Leadership Theory

The final theory to underpin organisational innovation is Systems Leadership (Macdonald 2006) where people come together to achieve the productivity and profitability to drive organisations. As we will see this does not occur by chance, rather it is designed by the organisation's symbols, mythologies, systems and behaviours. It is these positive organisations that create change through the implementation of the principles and practices within Systems Leadership. It is understanding that innovation is driven by people and within the boundaries of this project driven by people at multiple levels and integrated at the organisational level. By driving at an organisational level, we can assist complex multinationals to then manage innovation from the organisational level to the global level.

At Plant A all levels of work were discussed in understanding how the individuals would work together in the different teams. Due to the large amount of leadership training conducted by the research team, the abilities of the individual team members were well understood. It was important to include team members who could both think at Level 3, designing systems, and understand systems integration at Level 4. The teams included individuals working within engineering, operations including slaughter floor, boning room and loadout, commercial systems and social systems (Table 1). By understanding complexity and the levels of work, we can seek to better manage the innovation framework within Plant A.

The systems design process at Plant A created a system that was both authorised and productive (Figure 1). The existing innovation process was embedded in the quality assurance program at Plant A. From the 25 interviews conducted at Plant A, only one person knew of its existence. A second innovation program was operational at Plant A funded by MLA under the CRISP. During the period of the project, the project team did not know of its existence until late in the project. The project team utilised the unauthorised and productive framework to formalise the new innovation system. Essential to the development of the system is the engagement of plant staff in its implementation and hence the utilisation of action learning sets to embed the process.

Plant A staff have received significant levels of training on leadership and management underpinned by Systems Leadership theory. This level of management training has not been delivered to the other businesses within the parent company. The hypothesis is Systems Leadership Theory underpins culture change within an innovation system; a culture change enabled by this process will improve business innovation by enabling business leaders to empower staff to demand and implement change within the business area.

Levels of work	Operational	Social	Financial	Environmental	Market
Level 1 – completion of single element tasks	Working in the boning room or slaughter floor	Entering staff data on to the systems	Entering financial data	Managing the bio digester	Organising deliveries Driving a forklift
Level 2 – monitoring and evaluating single element tasks	Supervising the boning room or slaughter floor	Supervising staff orientation	Supervising accounts receivable and payable	Monitoring environmental performance	Operating a quality assurance program
Level 3 – developing and refining single element tasks	Analysing and improving boning room performance	Managing and optimising staff induction and training	Managing and optimising office procedures	Managing and optimising the environmental performance	Determining and implementing meat works quality assurance protocols
Level 4 – integrating and managing multiple business elements	Understanding the market requirements for meat products and integrating the operational, social, financial, and environmental elements to produce this superior product				
Level 5 – shaping and managing multiple businesses within a value chain	Understanding the value chain requirements for meat and deliver this product from multiple value chain partners to multiple customers. Able to implement the changes required to ensure this delivery occurs to ensure a sustainable business				
Level 6 – shaping a value chain on a national and international basis	Understand how the value chain exists within a national and international context. The business operates as an industry stakeholder to ensure the environment that the business exists in is excepting of and assists in the development of the value chain				
Level 7 – sustaining a value chain by understand and influencing worldwide trends	Influences markets and has a clear understanding on where food will change over the long term				

Table 1- Levels of Work – Macdonald and Assoc

2 Project objectives

In delivering the innovation framework to Plant A, the project team focused on a systems approach to the people, the innovation system and the technological opportunities to create a point of difference within the organisation. The project will produce five distinct outputs:

1. The initial culture audit outlining the culture in innovation of the organisation, understanding the underlying symbols, systems and behaviours at the three major sites;
2. Initial innovation framework including the initialisation of the innovation gates required to allow the innovation opportunities to be managed into the organisation including the business case framework for the technical, social, commercial and environmental drivers of performance. This will ensure high value innovation is identified and evaluated;
3. Further to the development of the innovation framework will be implementation of 4 action learning processes where key staff will work with the RD and A team to identify key innovation skills, innovation opportunities and the understanding of the innovation through the innovation gates;
4. The final culture audit of the major site outlining the change in culture in innovation of the organisation according to the underlying symbols, systems and behaviours; and
5. The completion of the final report.

In completing these outputs, the project will begin to:

- Understand the cultural barriers to innovation and develop a systematic approach to drive innovation within the Plant A;
- Introduce a specific skill set combined with the knowledge of available innovations and an innovation framework developed by Plant A staff;
- Optimise innovation for Plant A with a Systems Leadership approach; and
- Provide an innovation framework within Plant A to manage the complexity of innovation for Plant A.

3 Methodology

The project is underpinned by theory, yet its application is driven by practice throughout Plant A. Essential to this delivery at the ground level will be the relationship between the project leaders and the key staff in the Systems Operation Team, the Systems Design Team and the Integration Team inside the plant. This relationship is grounded through numerous events to develop the culture and leadership potential of the staff at Plant A. It has been hypothesised by the project team that it would be difficult to introduce this innovation program methodology into an organisation that was not ready in a cultural sense.

Future programs have been designed to also include the current industry standard leadership skill set and culture skill set to underpin the innovation program implementation. The project team have selected Plant A and Plant B due to the training methodologies implemented at the two plants. Where Plant A has had a focus on leadership and culture through training, Plant B has not had such a focus.

3.1 Team Process

The development of the team process includes several steps designed to capture and formalise the system design for innovation. Several formal and informal systems exist inside organisations.

Figure 1 Systems Matrix outlines the different systems that can exist inside an organisation. Within the matrix, systems take on four different forms. The aim of this project is to implement an innovation system that is both well designed and implemented. Plant A is currently occurring in quadrant C where people are cutting corners in order to get work done. Additionally, it has been identified that quadrant B practice is currently taking place where the processes are authorised yet restrictive in that they have been adopted by the organisation, yet they are outdated with respect to the innovation aims of Plant A.

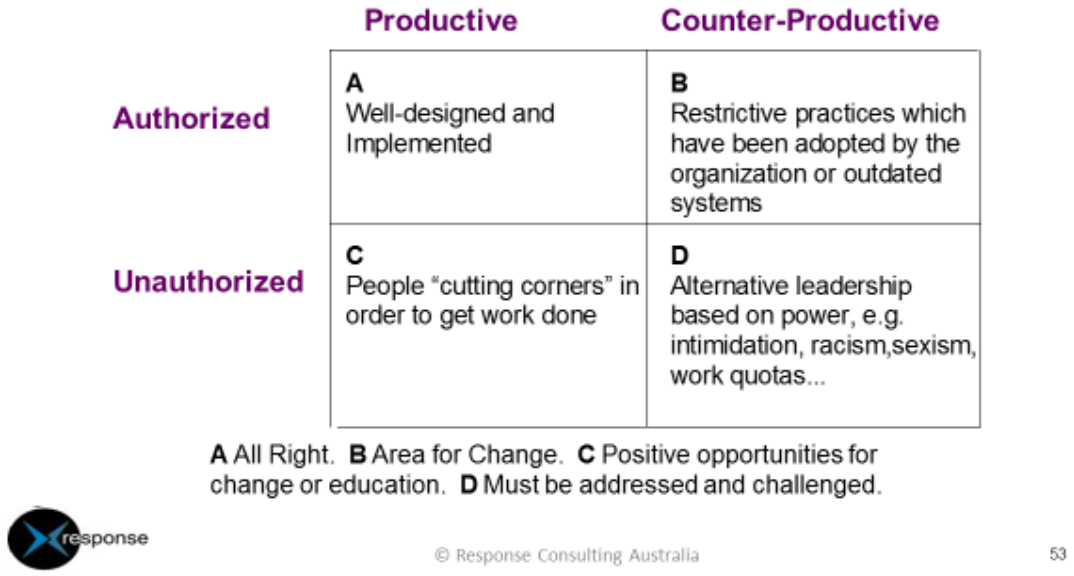

Figure 1 - Systems Matrix (Macdonald et al 2012)

The system design methodology included the implementation of a team process where the team set out the context or vision for the methodology and the purpose or mission for the methodology. In describing context and purpose, the team was to understand what was required for the system to be both well designed and implemented. In addition, the workshop was to design the current state and future state as per Figure 2 Systems Design Methodology. The current state gives us an understanding of what is occurring from a systems design perspective with the future state providing a clear understanding on how to achieve a system that is both authorised and productive (Quadrant A).

Workshops were conducted with the Systems Design Team to understand the existing system and strive to achieve a detailed design of the systems methodology best suited to the parent company and Plant A. The methodology included both large and small group work to articulate the different requirements.

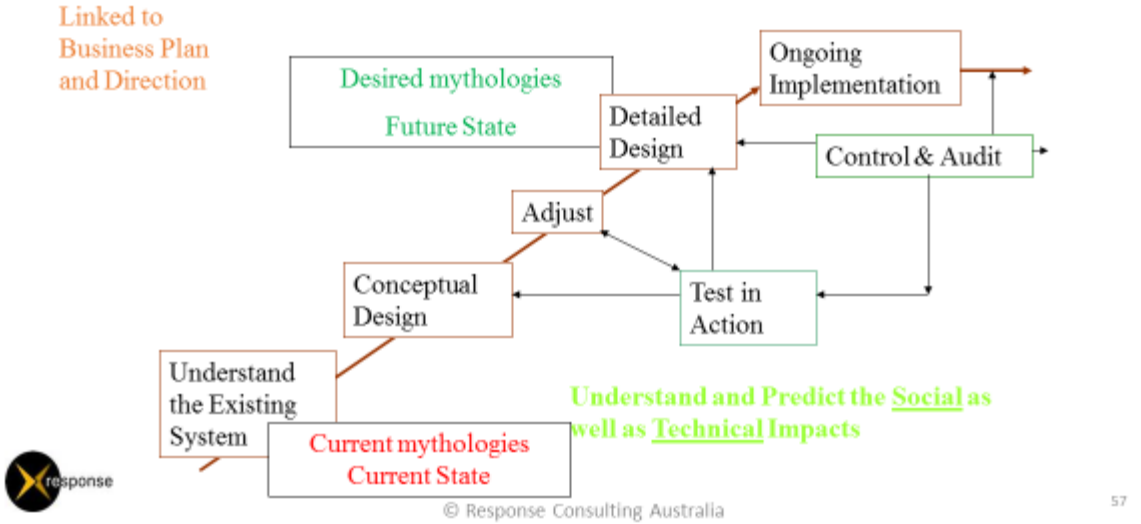

Figure 2 - Systems Design Methodology (Macdonald et al 2012)

The utilisation of team process allows a team leader to create appropriate social processes to lead the staff at Plant A. This establishes constructive and cooperative work relationships with individual team members. The team process was utilised to create an understanding of what the system needs to achieve. For the purposes of developing the innovation system, the team had to understand:

- the context and purpose required for the innovation process, that is a clear definition of what was to be achieved to ensure the system is both authorised and productive;
- the issues pertaining to Plant A in the development of an innovation system to allow an enhancement of profitability and productivity within the parent company's framework;
- the range of current and authorised and productive innovation systems within the plant and those systems that are impacting upon the plant from the parent company;
- a desired future state for an authorised and productive system including measurement systems; and
- the range of outcomes desired by the system to enhance productivity and profitability in the future including the relationship with the parent company.

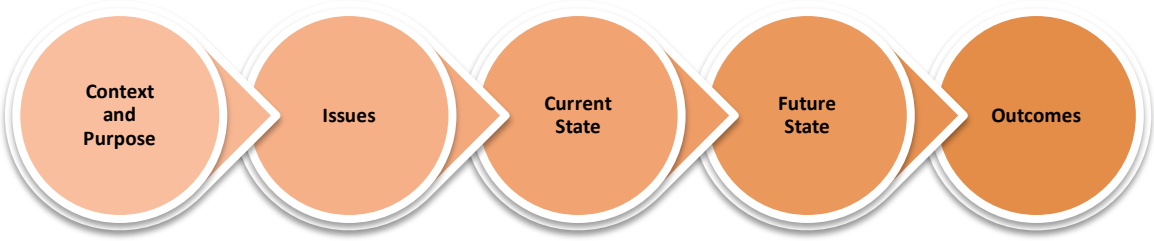

Figure 3 - Team process for innovation

As a background to the development of the process at Plant A we needed to formulate an understanding of the context of the problem. This includes:

- Company policy associated with different businesses within the parent company;
- The legislation surrounding the business and the constraints on future development;
- Current practices symbols, systems and behaviours within the plant and the effect that management leadership programs have had over the past eight years; and
- Any other factor that may affect innovation within the business This has been determined by both the project team and the senior managers within Plant A.

The qualitative analysis conducted during the culture audit outlined a number of key systems that were authorised and productive and a number of systems that were authorised and counterproductive. Plant A must understand the purpose, why the system has been chosen for redesign and what behaviour does to drive innovation.

We must also understand the outcomes we want to achieve. This is clearly defined in the project objectives where we want to understand the cultural barriers that stand in the way of the systematic development of innovation at Plant A. In redesigning the system, we used a Systems Leadership approach to understand the symbols, systems and behaviours associated with understanding such a complex innovation framework.

3.2 Culture Audit

The culture audit was implemented in two phases with both a quantitative and qualitative program at both Plant A and Plant B. Over 40 participants were identified at each site at the beginning of the project process to allow for a baseline to be developed. The two sites have received different levels of leadership and culture training. Plant A have been very active in leadership and culture training with a significant investment over the past seven years. Many of these staff members have received training in front-line management, diploma in meat processing, advanced diploma in meat processing, with the general manager receiving post graduate training to graduate certificate level. Plant B have received only front-line management training in the past five years.

A series of interviews were conducted at both Plant A and Plant B to identify key themes within a qualitative program using semi-structured interviews. The key themes included an understanding of the symbol, systems and behaviours for 21 employees (Hogan 2014). Each of the interviews were digitised and NVivo software utilised to determine the frequency of statements in relation to symbol, systems and behaviours and their importance to the organisation. Each interview included six questions with the interview lasting between 20 and 45 minutes. The interviewers were highly experienced in qualitative methods and moderation occurred at the end of each session.

In addition to the qualitative research, a quantitative survey was completed for all participants. Each participant was made aware of the confidentiality of the quantitative survey with instructions that only group means would be communicated to plant management. Most staff were happy to complete the quantitative survey with only one participant abstaining. After discussions and assurances, this participant chose to complete the quantitative survey. The survey was derived from the research conducted by Hogan (2014) and adapted to the food industry. Within Hogan (2014) research symbols were described as artefacts and for the purposes of linking culture driven

innovation to Systems Leadership (Burke 2012) this was adapted. There is a clear linkage between behaviours and systems within the scope of each body of research.

3.3 Innovation leadership

Much of our work in organisational psychology, in conjunction with innovation research, has led to several of our current research programs. Innovation systems, supported by a culture of productive social cohesion, can create a framework of improved productivity and profitability within our meat processing business, based on the work by Macdonald and Associates (2018). People are encouraged to contribute to business enhancement, therefore creating a 'pull' for innovation.

Our proposed work is underpinned by Systems Leadership (Macdonald et al 2012). Systems Leadership Theory provides a coherent set of principles and models by which the Leadership Development Framework can be implemented against the levels of work. The genesis is the focus on core human values, the human condition and organisation culture construct which is consistent with organisational values and behaviours. In essence, it provides a set of principles to assist leaders predict behaviour and therefore make informed decisions.

In addition to Systems Leadership, the programmes will include a focus on not only 'work capability' but also EQ (Emotional Intelligence – self awareness and understanding and respecting diversity). These are fundamental concepts for leadership not only to assist them becoming aware, accepting and then actioning within themselves but influencing peers and team members in emotional intelligence. The art of being present, listening actively and staying out of judgement is critical for all leaders regardless of level.

The innovation leadership process implements three important skill sets to underpin future development with the potential. Each project is an outcome of a learning outcome from a subject and is coordinated by the subject facilitator. The subjects are drawn from three skill sets from the Certificate IV program at Response and include:

- Team Leader Skill Set
- New Supervisor Skill Set
- Innovation Skill Set

These skill sets are particularly important when an organisation has little or no leadership training as they underpin the skills required for the implementation of the innovation. The projects developed in these subjects will be utilised in the last phase of the innovation program.

3.4 Action Learning Sets

The initial action learning set (Figure 5) implemented complexity theory and the understanding of chaos into the workplace. In simple terms it was a three-stage process where Level 3 and above (supervisor and above) will seek to understand the following:

- The impacts of business system on the other systems.
- With respect to the production line, what are the effects before and after?
- What is the effect of the finance on a system?
- To observe and reflect on what is happening within an area of influence and asking the key questions – what is working well and what is not working well?
- Are the surrounding impacts creating ripples? Are we creating ripples?
- What results are moving up and down the line? Are the results not as good as they should be?

- Creating our own questioning of our area of influence.

Upon observing the chaos, the supervisors conceptualised the answers to complaints and opportunities through innovation. They used the planning phase to understand the effect upon their area, the effect the change will have upon their area of influence and those systems that surround their area of influence.

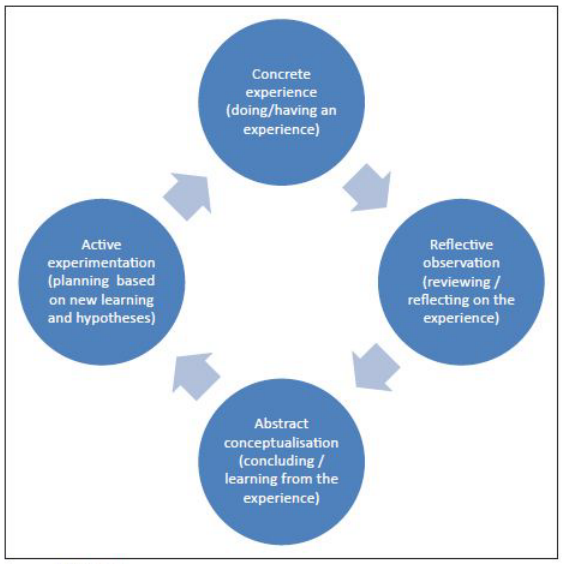

Figure 4 - Action Learning Set

These supervisors worked with the key facilitators to embed the skills and systems within the organisation. The supervisors were in control however mentored through each of the four action learning sets. The business case for innovation was made to the Integration Team who engaged with, or on behalf of, the General Manager. This process remains unfinished as building a culture driven system will take a number of years.

This process is at odds with a single innovation manager within the business. The utilisation of the team's approach allows the creation of skills-based teams to develop multiple answers to questions. The creation of dissonance amongst the skills-based project leads to the creation of rigour in the development of project approaches.

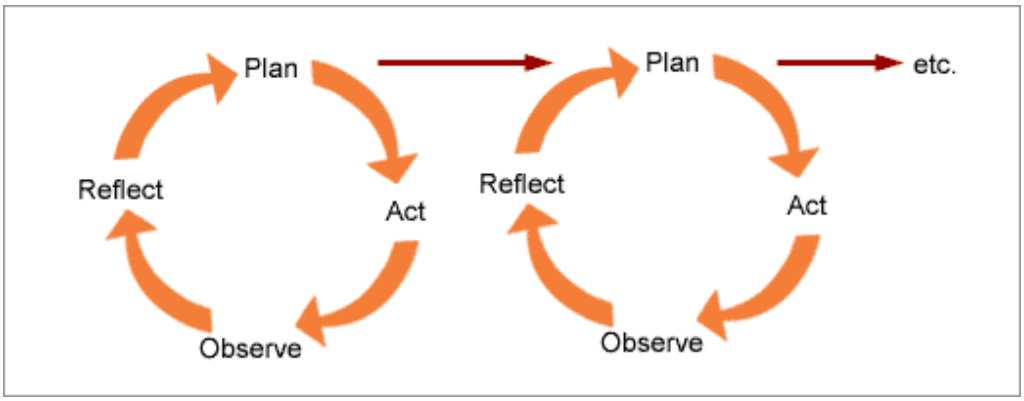

Figure 5 - Multiple action sets embedding the innovation process

The utilisation of action learning sets was an essential component to embed the process within the different teams. The project term of six months was initiated to implement the innovation framework. The time required to embed the framework can be several years and this is in line with creating changes in culture within an organisation. Within initial stages it is important to initiate the Pareto Principle (Craft 2002) rewarding the 80% of the teams who have begun to implement the framework and continue to develop the culture of these individuals.

4 Results

4.1 Culture Audit

Plant A draws its cattle largely from Western Queensland and has a team of highly proficient cattle buyers working in conjunction with a feedlot in South Australia to ensure high-quality cattle are supplied to the meat works. Climatic conditions in Queensland and New South Wales have been extremely difficult over the last two years due to drought conditions leading to supply issues for cattle. The leadership team at Plant A as per the qualitative survey are a highly motivated group of professionals focusing on productivity in the facility. This is an observation from the Response Consulting Australia (RCA) training team while working with each of the managers within diploma, advanced diploma and graduate certificate courses. Plant A seem to be more proactive in improving productivity and profitability during these difficult times within the last two years.

4.2 Quantitative Research

The results of the quantitative survey within the culture audit (Table 4) has clearly identified a significant difference between Plant A and Plant B. The two plants exist within the same company and have several attributes:

- Both plants source cattle from difficult farming systems with Plant A having the advantage of a stronger local farming system;
- The management at Plant A has been proactive in securing innovative projects
- The management at Plant B has been changing over the past years and the plant has not been successful in securing innovative projects;
- The management at Plant A has been proactive in staff training over the past seven years with numerous staff members completing Certificate IV, diploma, advanced diploma and graduate certificate; and
- Management at Plant B has implemented staff training for Certificate IV.

The qualitative research program has chosen a Likert scale (1-5) over a 1-10 scale as there is reduced variability associated with the research outcomes. Within this framework 1 to 5 is very low (1), low (2), moderate (3), high (4) and very high (5).

	Average	
	Plant A	Plant B
1 Innovative Behaviours	3.26	2.57
2 Symbols of Innovation	3.36	2.68

3 Mythologies for Innovation	3.50	2.68
4 Core Values - Systems Leadership	3.90	3.26
5 Basic Innovation Values	3.94	2.93

Table 2- Innovation Outcomes

The innovation outcomes within Table 2 demonstrate a statistical improvement in innovation outcomes for symbol, systems and behaviours and the underlying culture of Plant A. It is interesting to note that the core values are higher than the outcomes for symbols, systems and behaviours at Plant A. Due to the underlying culture being strong, it is envisaged that improvements can be gained across the Board at Plant A to improve innovation outcomes. This is the underlying aim of this project.

	Average	
1 Innovative Behaviours	Plant A	Plant B
1.1 Client-focused innovation-related behaviours	3.49	2.79
1.2 Marketing-focused innovation-related behaviours	2.83	2.51
1.3 Technology-focused innovation-related behaviours	3.39	2.34

Table 3 - Innovative Behaviours

The innovative behaviours demonstrated in Table 3 demonstrates the focus of the industry within the sustainability as being largely technical rather than market focused. It is difficult for many commodity businesses to be market focused when marketing departments are located in other states. Current research identifies that if marketing departments are separated from production facilities there is a lack of product innovation within a commodity product. Plant A remain significantly higher compared to Plant B within innovation behaviours. Comments from the qualitative study include statements such as Plant B is the poor cousin to Plant A in innovation.

One can surmise if this a preference of one plant over another or if one management group is more effective in communicating outcomes and receiving capital funding. The opportunity exists to influence behaviours through the engagement in market focused innovation and continue the technology and client focused innovation which has been effective on staff behaviours.

	Average	
2 Symbols of Innovation	Plant A	Plant B
2.1 Stories about “heroes” of innovation	3.44	2.58
2.2 Physical arrangements for innovation	3.19	2.26
2.3 Rituals of innovation	3.17	2.71
2.4 Language supporting innovation	3.64	3.18

Table 4 - Symbols of Innovation

Symbols of innovation in Table 4 outline how staff perceive innovation to be undertaken at each of the plants and usually involve staff perception of plant leadership and their ability to engage with staff in the plant. Again, there is a significant difference between Plant A and Plant B. In working with the majority of managers across Australia, Plant A is seen as a leader in innovation nationally, hence

the stories and language supporting innovation remains strong. An interesting outcome of this particular process will be to improve the physical arrangements around innovation through the teams and the rituals of innovation through working together to improve staff belief in the innovation system.

	Average	
3.0 Mythologies for Innovation	Plant A	Plant B
3.1 Success in innovation	3.57	2.89
3.2 Openness and flexibility for innovation	3.78	2.91
3.3 Internal communication supporting innovation	3.24	2.51
3.4 Competence and professionalism supporting innovation	3.28	2.68
3.5 Inter-functional co-operation supporting innovation	3.87	2.89
3.6 Responsibility of employees for innovation	3.63	2.93
3.7 Appreciation of employees supporting innovation	3.24	2.44
3.8 Risk-taking for innovation	3.43	2.18

Table 5 -Mythologies for Innovation

With respect to systems of innovation, most scores remain high with several key outliers. These include the:

- Internal communication supporting innovation;
- Competence and professionalism supporting innovation; and
- Appreciation of employees supporting innovation.

All parameters within systems of innovation can be improved however these key outliers will affect how staff work together in understanding the effect of innovation on the business. It has been demonstrated through education programs with staff that when staff understand the interdependencies which exist within the elements of performance, improvements in innovation can occur. Examples of this include case studies developed within the project to date.

One such project is the interdependency between how staff utilised gloves and gowns and its effect on cost. Another such project was a utilisation of labour inside the facility and the change in labour use when time and cost of labour were utilised as an interdependency between these two elements. Within these two projects three key principles were utilised including internal communication, support and understanding innovation, and finally helping employees appreciate the effect of this interdependency.

	Average	
	Plant A	Plant B
4 Core Values - Systems Leadership	3.90	3.26

Table 6 - Core Values - Systems Leadership

Systems Leadership theory tells us there are six key core values associated with organisational performance. These values include trusting, caring, courage, honesty, dignity and fairness. These core values are fundamental within the Systems Leadership theory of organisational performance and a key facet to this research. There is a significant difference between these values at Plant A and Plant B.

The questions were posed from the perspective of the organisation on one hand and the individual's leader on the other side. The ability of staff at Plant A to trust, to believe that they're cared about, to believe their leader and organisation is courageous and honest, and that their organisation treats the staff with dignity and fairness is statistically significant. This is a cornerstone of culture driven innovation.

	Average	
5 Basic Innovation Values	Plant A	Plant B
5.1 Success	4.57	3.46
5.2 Openness and flexibility	4.00	3.09
5.3 Quality of internal communication	3.65	2.62
5.4 Competence and professionalism	4.13	3.15
5.5 Inter-functional co-operation	3.80	2.63
5.6 Responsibility of employees	4.15	3.07
5.7 Appreciation of employees	3.33	2.48
5.8 Risk-taking	3.85	2.91

Table 7 – Basic innovation values

The basic innovation values outlined by Hogan (2014) are outlined in Table 7. Again, there is a high level of significance associated with these core innovation values. The core values support the innovation behaviours outlined in Table 5 of appreciation of employees and internal communication. These core values will help underpin the development of the innovation system to ensure staff are engaged and the project team and the Systems Design team can design the innovation platform to support these issues.

4.3 Qualitative survey results

The initial project document called for the use of only quantitative assessment as a part of the evaluation process. After the first round of quantitative assessments the project team identified comments made after this process. It was decided that this point that we should also undertake a qualitative survey to develop a rich picture of information to support the quantitative assessment.

Overall, 42 semi structured interviews were conducted to assist in understanding the information derived from the qualitative survey. 21 interviews were conducted at Plant A and 21 interviews conducted at Plant B with a duration between 30 and 45 minutes. These interviews were conducted with superintendents, supervisors and managers of the individual plants. The semi structured interview questions were structured with two questions to identify symbols, two questions to identify behaviours and two questions to identify systems. For this report anecdotes were derived

from the qualitative questioning. These interviews have been transcribed into word documents and frequencies have been developed on key themes from the qualitative questioning (Yin 2010; Bazeley 2010) as can be seen in Tables 8 to 11. This process has been used in numerous studies undertaken by the project team and is seen as providing understanding for the current report (Slaughter 2015).

The statements in 4.3.1 Symbols, 4.3.2 Systems, 4.3.3 Behaviours and 4.3.4 Mythologies are actual statements made during the semi-structured questioning in the qualitative survey.

4.3.1 Symbols

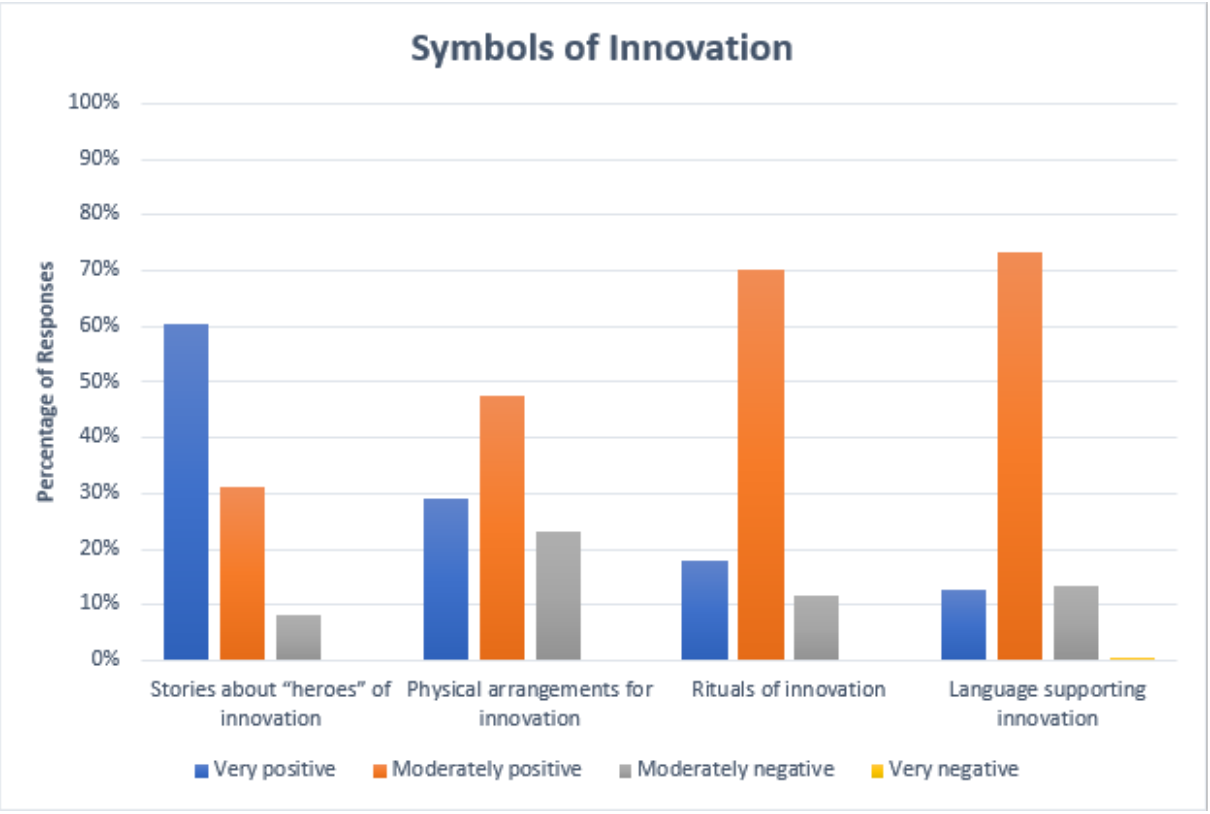

Table 8 - Symbols of Innovation

Organisational symbols are derived from the values that are manifest in how individuals see the organisation or artefacts (Hogan 2014). Within any organisation, symbols or artefacts are far more visible than organisational culture and are manifestly evident in organisational rituals, language and physical innovation arrangements. At Plant A these symbols include:

- There is not only a focus on innovation at Plant A but on the opportunities for the industry as a whole;
- The General Manager and the Chief Operating Officer (COO) as motivators for change;
- The process is more like to succeed with the support of the COO;
- The ability for Plant A to be a leader for change in thinking outside the norm;
- Many ideas are not followed up on;
- A focus on enhancing product at lowest cost;
- Projects are easy until you introduce people to the process;

- Leaders have an in-depth knowledge of what has worked and what didn't work;
- An excitement within the organisation;
- A lack of interest from group innovation at another parent company plant and the need to implement; and
- Restraints from the parent organisation in relation to the future and desired return on investment for the plant.

The key underlying symbols at Plant A is that the organisation perceives itself to be an innovator within the meat processing industry. There is significant room for improvement at the plant to improve the innovation where physical arrangement, celebrations and language supporting innovation lift to equal the stories of innovation.

Heroes of Innovation

Positive

- The General Manager is a champion of innovation. He drives it, he inspires it, he inspires us.
- I think he [the General Manager] has a love for the place, but whether its small or big. And as well, the General Manager is always coming up with something new, or something progressive and the COO is the one saying "Oh you should fix this, you should fix this in this way. I was thinking about this the other night." The General Manager is the ideas, and the COO makes it happen.
- The General Manager is the one that says, "Different people in the industry are doing this, we should look at that." So the General Manager is progressive looking out of the plant
- The COO is the one who can make the place better, as in looking at what we can't leave, what needs to be working, and how we can make it better.

Negative

- The question of who people go to, I don't know that there's necessarily any pattern in it.
- Probably a little bit looser than it should be. A day like today, it should be the General Manager because he's here. When he's not here then it gets a little bit haywire at times.

Physical Arrangements

Positive

- I think innovation means a way of improving the process.
- Maybe possibly you need to have more of an innovation manager here, or something, you know? Is that what the company needs?
- Although we do have a meeting every now and then as to prioritizing what's in it. Adding new stuff to it.
- Any kind of expansion. Any change they want to make. On my side of it. If it's building new rooms, and for me it's refrigeration and all that stuff. What's happened, how are we going to supply it.
- It will eventually end up flowing through. Yeah. Yeah. Sure. Uh what about things like you know volume. We can increase volume. That's probably had an effect on things over time.

Negative

- There is probably no set guidelines around it as such.

Rituals

Positive

- It's all ideas and processes and systems. Any improvement, any new way of doing things tends to shorten the necessary time required to do things.
- Innovation? Once again you know it's across the Board, it's everything we do. There's no specific thing.
- For an overall perspective, plant perspective, certainly exciting and to me it can make, what I see as a mundane, labour intensive, boring job, could turn into something exciting.

Negative

Nil.

Language supporting innovation

Positive

- It means something that solves problems. Problem solving. It means new ideas. It means creating a better process of improvement to the system. It means continuous improvement.
- Innovation would have a big effect on my job.
- To me it means you're doing something outside the norm within the industry to be a leader in change, so to speak

Negative

- But you can lose sight, you know, if you're chopping down trees, you just keep chopping down trees. When you're actually involved in the planning and knowing what you're chopping the trees down for, it becomes a whole different set. It becomes a lot more exciting and to be involved in the process and see how it excites the people up the top makes you go even harder, because in essence, they're the people you're trying to please.
- It's only an idea until someone wants to put the wheels in motion, so to speak.
- I think the few changes in innovation that has been put forward is a plus, because if you don't move on and keep going forward, you can get left behind in the industry.

4.3.2 Systems

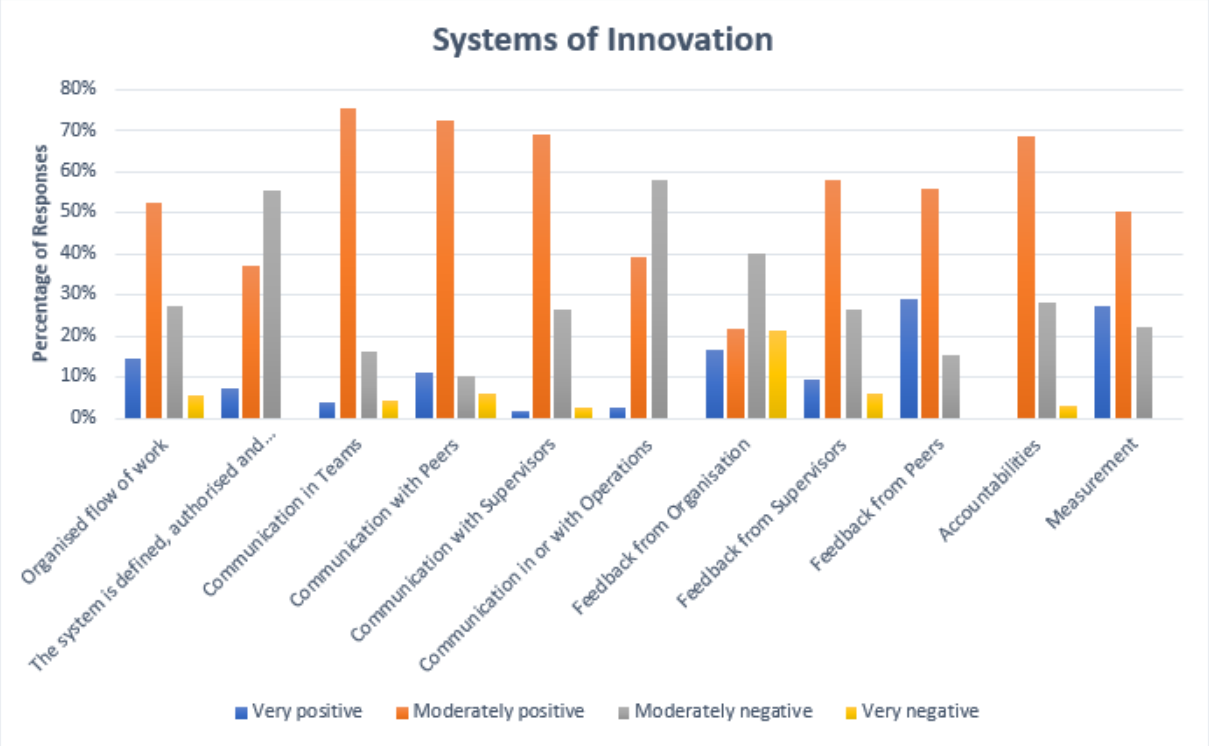

Table 9 - Systems of Innovation

Systems that underpin behaviours, symbols and mythologies at Plant A are currently mostly moderately positive with some moderately to very negative. The interviews found that:

- There is often an idea that stays within an individual or a small group;
- Many ideas are implemented by teams (if they are not too expensive) (QC);
- Sometimes R&M used to fund improvements (as a way to mask) (QC);
- A systematic approach is required;
- Boning room has a strong feedback culture and use it to improve (QC);
- A need to understand where the bottlenecks occur i.e. loadout has 40-year-old technology;
- There is a need to understand the process and take people along with you;
- There is no system in place to assist innovation (manage?);
- The need to enhance morel and the functionality of the system - more people are asking for;
- Need to understand the missed opportunities and understand the interaction between technical and commercial;
- Develop a system with things are not done three times (QB);
- The need to build rigour into technical and social systems;
- The need to implement training within an innovation program;
- The need to integrate systems to maximise productivity;
- Change the mindset on getting the product out to process first;
- The need to implement financial systems to underpin innovation systems e.g. budget;
- The need to meet regularly to discuss all ideas (monthly suggested); and
- The need to drive thorough research internally and not just go with the “providers’” word (QB)

Quadrant B (QB) and Quadrant C (QC) relate to Figure 1. The creation of an authorised and productive system will allow innovation at Plant A to underpin innovative behaviours and create positive symbols and mythologies for the organisation.

Organised flow of work

Positive

- If they have systems or mechanisms in place that made the distribution of information and knowledge essentially required, then it's a lot harder for it to be prevented.
- Yeah, we've sort of improved things around the kill floor, boning room, just things in general, you know, like something small, it might be something bigger.
- I try and make it work better. Try and find ways of making it easier.
- Traceability, everyone's accountable, there's a paper trail so you can just go back in again and go “I’ve processed this, I’ve done that, that’s mine, that’s someone else’s, someone else has done that.”

Negative

- There was never any real direction behind the whole process from the start.
- So we need to deal with issues**.** There’s jobs that I bring up at management meeting every time and nothing gets done. I think that is the root of some of our problem.
- Well I don't think there’s any examples where it hasn't worked well, but there's been examples where it took a long time to get in and get it to work

The system is defined, authorised and productive

Positive

- Find solutions for those once it is verified.
- I suppose someone would come up with an idea and then it would be filtered up into the pyramid, so to speak. I don’t know what level would go generate speed, you know what I mean.
- We need to form a group, a committee to deal with innovation whether it be machinery wise involving maintenance, or process wise involving myself, Bob, Russell whoever, whoever is involved. And then work out what's the best option between us all and stick to that option.
- What is sort of means to me is that you are wanting to create something, but you need to work out all the pros and cons, more maybe to get a process to work.
- I always appreciate when any innovations are made that speed up or make easier the processes in my area of course and it's always good for the company to have innovations across plant.

Negative

- I wouldn’t say. It's more of ad hoc, most of it. Unless it's a direction given by the General Manager that we want to do this, prime example value added, right we’re going to value added, but it’s still, “we're going to do this. We're going to do that.” It’s still all over the shop.
- Some of it, there’s no justification because it just has to be done so you just do it all up anyway and he signs it off but anything else you want to change or do, it's got to be justified. And it’s not a bad thing, but it takes a bit of time.

- Yeah seems to be a long haul before you get anything, and if it's got to go to Japan. It just seems that way, you know. You don't seem to have anything happen.
- Usually when I'm working in an area for too long, actually, I do get a bit of the horse blinders on which is frustrating.

Communication in Teams

Positive

- We'll talk through it, gather their thoughts. I do like to challenge them on it. I try to be constructive with that, not constructive with their idea, but give them different scenarios to consider with it and ask them how they go about taking it to the next step.
- You give the workers as much information as possible.
- I go away and think about it. You have to think about what their suggestion is first, and then you know go have a look for it yourself and go back and talk to them.
- It works when we're all together pulling in the same direction.
- I'll definitely take it in, and if they do their job, so it's easier for them to tell me what makes their life a bit easier. As long as I'm still getting the same outcome and it's going to be cost effective, there's not point spending three million dollars if it's not going to fix anything.

Negative

- We still all hold the cards close to our chest but I think we need to be handing that information back to the workers, and we can try and shape the workers, so to speak, and who doesn't conform we need to put steps in place whether to get them to conform or not.
- Just going by what I've done so far, you get some people that are predetermined with what the outcome is going to be

Communication with Peers

Positive

- We try and do things better every time we come up against something like a breakdown or something in particular to maintenance. We'll always try and make it better. So will always look at why it's broken, how it's broken and then try and redo it so that that particular situation won't happen again. So really, I suppose it's just about being better and trying to make things more efficient, I suppose.
- He then will give his opinion on it and he might say "yeah that's a really good idea. We'll just tweak this, tweak that" and we'll put both of our heads together and we'll sort of come out with a finished product and, you know, work together. It sort of works good like that. You know I value his opinion as much as he values mine.
- People seem to respond better if you get them involved instead of directly saying "Oh I want you to do this and I want you to do it on step A, B, C" If you say "well this is what we've got to do, this is what we've got to achieve, this is how I think we should do it. Do you have any input?" and then we might change it, alter it, and if I think there are ideas maybe will work better than mine or vice versa we'll go with that. You know it's just about working together.
- Occasionally, well we could talk to the other plants as well. Definitely people throughout the industry. Again on a confidential basis like what you guys use for this, how do you manage that. So I suppose we have that opening to.

Negative

- Along the way we had, some of the problem with what we do here and why it fails, what we touched on the other day, somewhat with egos, the plant engineer has a position where if

he's not interested, he will wipe shit. " Not interested in that" and we have so many projects that have gone into that basket. They're all there, but nothing happens.

Communication with Supervisors

Positive

- They come to me. We'll talk through it, gather their thoughts. I do like to challenge them on it. I try to be constructive with that, not constructive with their idea, but give them different scenarios to consider with it and ask them how they go about taking it to the next step.
- If its someone at that level, supervisors will raise it to their manager. Sometimes there is a bit of a skill in it as well. You need to work out who's idea it needs to be.
- And if it turns out to be a good idea, I'll usually take it on Board, bring it up to management.
- I get their opinions on it, maybe what they think, you know maybe some possible solution or a possible way of doing it and once I get it together, that's when I'll take it to senior management, before I act on it of course.
- SPEAKER: When you went to HR with a good idea, what did you like about what happened? RESPONDENT: that it wasn't a one answer. It would actually be an in-depth conversation on how that would work. And showing workings as to how it does or doesn't work to be able to progress it.

Negative

- I've taken that stuff to [the plant engineer] and he'll say no or yeah, it's got merit, whatever, and if he gives it the tick of approval, we can move it further, or if he says no then that's the end of story. It won't go any further.
- Oh probably not so much now that you know what his expectations are, what you're going to get, what you're not going to get, whether you push for or you say "Oh I won't bother" if you know it won't get off the ground, it won't go any further, you know.

Communication in or with Operations

Positive

- But now it's good to get an understanding of how they should go through a process, how to get a process to work.
- I've been given the opportunity to give them a few ideas from my side of it before they actually put it in steel, as such.

Negative

- But it was, no direction with this. It all started with [the parent company] but if it hadn't of been us to take it over.
- I've been getting information since last year on a project. We've put all the data together and everything else. We've had, all the contractors have been onsite, we've had meetings, and they want that done by June I think and it's still in Japan. I mean end of the day, it's their money. Nothing I can do about it.
- It's on our management team agenda so I keep waiting for that, but I probably need to push him a bit harder. It's a bit hard because you don't want to step on people's toes. It's not my job to actually do that.
- I mean, some ideas have just gotten nowhere, and other ones have eventually got pushed through. I think we get a bit of resistance from [the parent company] so that makes it difficult at times. It's not really clear what I think their requirements are. You hear feedback from people saying they don't look over things that are common sense, and other ones just sail through.

Feedback from Organisation

Positive

- Most of the time. Either it will be “No we're not going to waste our time” or “we want to leave it and do something else.”
- It's always good to have a bit of clarity with management on what direction they want you to go.

Negative

- It’s not how they perceived it to be what it’s been like for the last 15 years. You want to show innovation and change, you’ve got to have those people to come along with it to come along with it, so if you don’t get them on Board with innovation, that’s the grassroots people, they’re going to stand out and say “no no” and give you all the excuses under the sun not to change it.
- Yeah seems to be a long haul before you get anything, and if it’s got to go to Japan. It just seems that way, you know. You don’t seem to have anything happen.
- It would be good to have what’s our minimum return on investment required and things like that but then some projects don’t need a return on investment because they need to implement for safety or regulation.

Feedback from Supervisors

Positive

- We're always trying to teach the apprentices and try and teach them on these sort of skills, you know.
- Working towards getting the idea tested and implemented if that is through me, or through me. The other part of it is I will help to investigate reasons why it mightn’t have been done before. There might be some reason it was considered and didn’t happen. Find out whether it’s that or if is it a completely new idea that no one has considered.
- Yeah, it’s an information thing. Information as in what’s coming to them, where they’re at.
- They usually come to me. What I usually do, if I have an idea or they have an idea, I’ll take it on Board, I’ll discuss it within the team and say righto it's not a bad idea, but this is where I see a fault in, it’s not a bad idea. I’ll ask and everyone will put their opinion in.

Negative

- Look I suppose it’s a little different to what [the boning room manager] would tell you because I’m only a line supervisor but when I was over there, you would have to try and instigate it yourself, but then if it costs money or resources, then you may end up hitting a brick wall where a cost factor may not be allowed to happen, like you may not be allowed to do this because your superiors won’t see the benefit in it or something, I don’t know.
- Well you know whether you get to the General Manager saying “That's what we’re doing” or it needs to be a couple of us saying “This is what we’re going to do, this one is first” and not wiped because we don't want to do it.
- Or just “No, it isn’t going to happen.”

Feedback from Peers

Positive

- Well we would analyse that as a team first. So the techs and I would have a discussion on that as to whether that was going to work for everyone.

Negative

Nil

Accountabilities

Positive

- It's not just can be applied to one department. Everybody has to play their part. Yeah. Because it's not only the top management that have to come up with the idea, somehow the lower management as well because they're the one who always hands on and experienced throughout the whole process so their experience, their ideas, what can make things better.

Negative

- And that's where things then struggle to go through because it's not logged anywhere, there's no requirement for anyone to follow it up, offer their input.

Measurement

Positive

- Yeah, I suppose everyone feels like they're directly benefited by that, you know. So if you don't have to come back and fix it next time, well all the better.
- Yeah and if we can make more money than what we currently are, well that's a win on everybody's side. One, my job gets easier, my guys job gets easier. The company makes money.
- I always appreciate when any innovations are made that speed up or make easier the processes in my area of course and it's always good for the company to have innovations across plant.
- So if we have an innovative system in there, so the technology's there, it's making throughput of this particular, certain production item, a whole lot better, less labour intensive, all that stuff. Well if I can build, also into that, the smarts and get that information back, I could see what it's actually doing and how it does actually improve systems.

Negative

- I would say more training and probably more of an idea of the functionality it has, and then would come the training behind that. There's a lot of systems that can go in, for example, a Marel system that has all these features in there that no one knows about them or how to extract that information out of them.

4.3.3 Behaviours

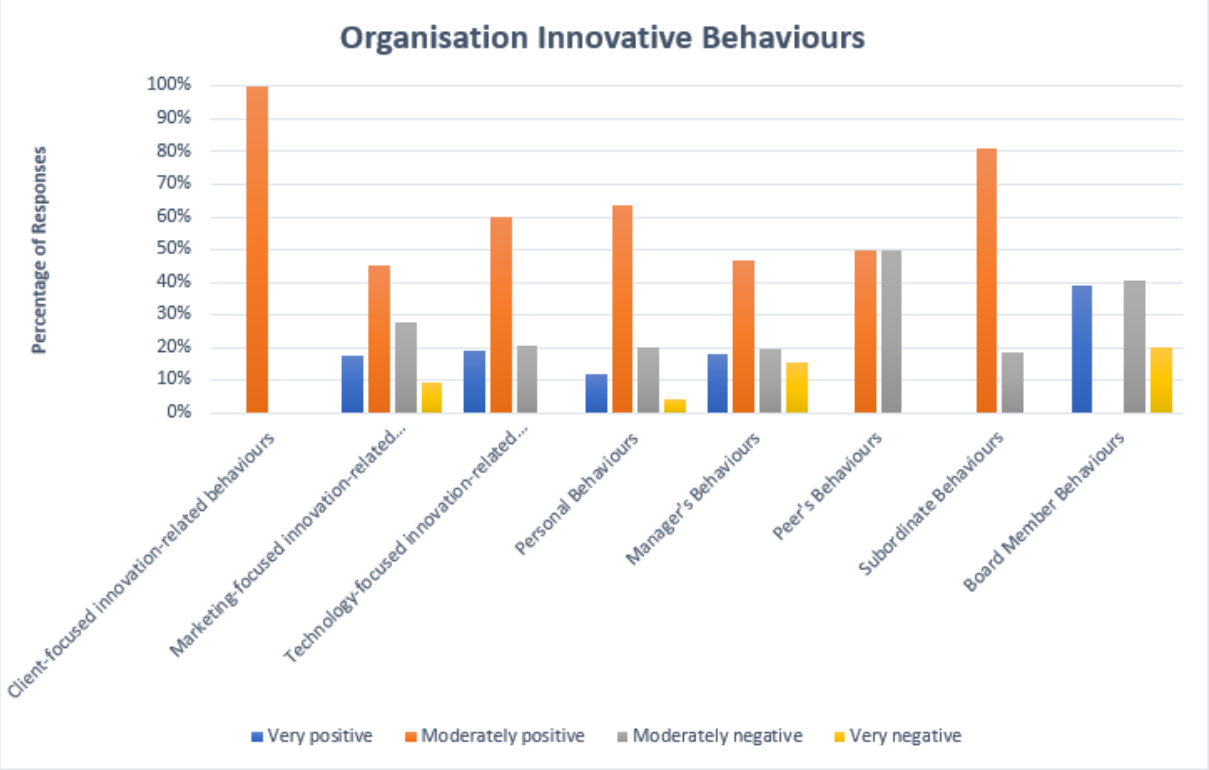

Table 10 - Organisational Innovation Behaviours

As indicated in the quantitative research the organisational innovation behaviours are moderate to good which is reflected in:

- The focus on innovation when the General Manager and COO are on site (QB);
- A level of frustration due to a lack of a system;
- A lot of talk and discussion around innovation without structure;
- People talk about how well innovation works and in the next breath are frustrated by the lack of structure;
- A need to think through scenarios and consider the negatives and the positives;
- There is a lot of 'looking for improvements' reported; and
- There is a lot of implementing improvements with 'approval' reported (QC).

Marketing focused innovation related behaviours

Positive

- We'll always have the evidence to say this can work practically and financially.
- Yeah and if we can make more money than what we currently are, well that's a win on everybody's side. One, my job gets easier, my guys job gets easier. The company makes money.

Negative

- They're stuck in the rut of 'let's get the product through the room. Let's not be hung up too much on customer spec, workplace health & safety.' They're not too concerned about that because they're driven by production. I think the process should come first.
- Well market can drive innovation, but if you're not moving forward, you can't innovate can you
- Well we have the product, don't we? We're producing it daily. But if the markets there, you need to go after it, but don't go after it to put yourself too far ahead of where you want to be.

Technology focused innovation related behaviours

Positive

- Innovation is going to be a structural scenario to take away manual handling and everything.
- So if we have an innovative system in there, so the technology's there, it's making throughput of this particular, certain production item, a whole lot better, less labour intensive, all that stuff. Well if I can build, also into that, the smarts and get that information back, I could see what it's actually doing and how it does actually improve systems.
- Innovation to me means new ideas. Ways of improving what we currently do. Looking at the big picture stuff whether it's right out there or not, you know. Things to achieve.

Negative

- Well you've got to spend money to make money and sometimes the machinery that we'd like to use we can't use unless we prove we can make money with them. And yes, it's kind of a Catch 22. We can't prove we can make money with them unless we're allowed to use them, do you know what I'm saying?
- If the processes are purely mechanical, without human intervention, the process is easy. But once you start putting in the human factor where they've got to actually interact with it, there comes your potential shortfalls

Personal behaviours

Positive

- I think innovation comes from when you go and your experiences. And when you take mental notes and that sort of thing of the places you might have been or things you might have seen, you try and build on that and try and elaborate your ideas into something that might potentially make a process or something or other easier.
- I think you just like to be heard. Some people like to be heard. Some people don't. It's personal preference.
- I think there's not only mechanical, but there's also different structures within people, and how to manage people to make innovation effective.

Negative

- There will always be 5% or 10% of people who are old school and say 'no you're trying to do us in, do us wrong' or something, you might come forward a little bit there, but you're always going to get that percentage of people who can change.
- It comes down to information and people. If people think we, the company is doing something wrong, and by us trying to show innovation or show us going forward, a certain amount of people will think 'the company's got a bad direction' or 'you're trying to take work off me' or ' you're trying to take an avenue to reduce my wage or make me work harder.'
- The older heads at the moment, so to speak, if I show them all this sort of stuff they just come up with excuses and say "No, it's rubbish, get away" because it's different.

4.3.4 Mythologies

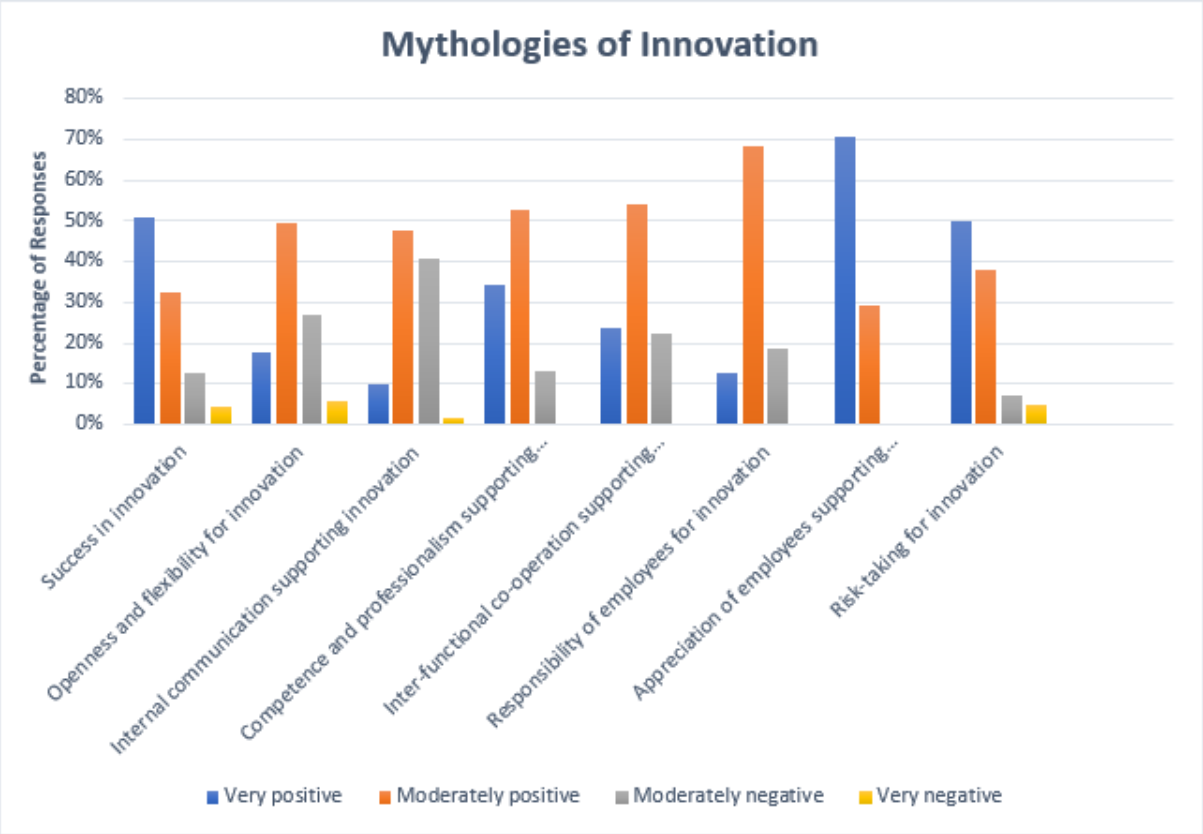

Table 11 - Mythologies of Innovation

Success in innovation

Positive

- I think innovation means a way of improving the process.
- We're always constantly trying to improve what we do here and that's innovation.
- It would be where we're heading, what we can do, where we're at, where you think we should be at and how do we get there.

- It may already be something that exists. It may not. But to improve the way in which something is performed or undertaken or created is to innovate
- Yeah like it didn't happen overnight, and when it did happen it's, you know, makes you walk home, with your head held high, you know because you know that it worked.

Negative

- Well I don't think there's any examples where it hasn't worked well, but there's been examples where it took a long time to get in and get it to work
- This is, not knowing exactly everything. Rodney Mason would know more about exactly everything and information in the loadout but you're looking at a boning room that's 10 years old and state of the art, and you're looking at a loadout where you're forcing everything into the one area, and your loadout is 40 years old. You're going to find deficiencies everywhere.
- I instigated something in loadout and then since I've moved, nothings ever happened, I believe so.

Openness & Flexibility

Positive

- Constant improvement by changing the standards. The status quo. There's no such thing as keeping the status quo.
- Innovation to me means new ideas. Ways of improving what we currently do. Looking at the big picture stuff whether it's right out there or not, you know. Things to achieve.

Negative

- It doesn't work when there's people who are threatened by it, and for me, in my experience, that's a distribution of knowledge that's feared.
- Sometimes people don't like changes. That's the hardest part of getting that mindset to change, but the first time is always the hardest but probably after they experience it, they look at the idea in different point of view and they understand it better than they would be able to solve it
- Yeah because some people have been doing that job for a long time, they are used to it. But at the same time, by other people trying to bring an idea to the department, they feel like they're being challenged, their knowledge, which is the hardest everywhere.

Internal Communication Supporting Innovation

Positive

- I observe, and question people. Looking at it, talking to people about it, writing it down, obviously, and assess whether that's feasible or not, and then that leads to brainstorming.
- We can definitely improve on the communication part of it so rather than having an individualistic approach, such as there are plenty of variables in it.

Negative

- I think innovation won't work well if it's not communicated properly, and I have had a couple of instances where it's been very poorly done.
- Nobody is necessarily seeing it works best, but where it could work best would really on the sharing of information and knowledge across different departments. Too often the ideas get stuck the individual that comes up with them and they don't get distributed. For me, I'll share some knowledge or ideas with someone and that person in that department will use it, but not everyone else.

Competence and Professionalism

Positive

- I think Plant A have really tried to stand out in the industry and try and sort of shine I suppose in this particular market. And try and get up with processes in the time. And sort of corner the market I suppose. And I would assume that they've done their research on plenty of other abattoirs and that sort of thing and tried to, try to be individual but significant as well.
- INTERVIEWER: Why do you think it worked well like that?
  ANSWER: Because the guys that wanted the system had an invested interest in it. They wanted to make it work.

Negative

- We were running before we were crawling. We were trying to hit the ground running but we had nothing stable in place.
- It is, no one really knows how to drive correct. We've only got the taxi driver in there rather than the actual formula one driver in there.

Inter-functional Cooperation

Positive

- We need to form a group, a committee to deal with innovation whether it be machinery wise involving maintenance, or process wise involving myself, Bob, Russell whoever, whoever is involved. And then work out what's the best option between us all and stick to that option.
- Well I think the person must go, operation, make the operation go smoothly as well. Reduce the costs obviously. So that's a lot of department that we have to look at because I believe that innovation is not just. It's not just can be applied to one department. Everybody has to play their part. Yeah. Because it's not only the top management that have to come up with the idea, somehow the lower management as well because they're the one who always hands on and experienced throughout the whole process so their experience, their ideas, what can make things better. Feedback is the most important I would say to top management. So takes two hands to clap.

Negative

- Just because we've done it this way for 20 years, doesn't mean it needs to be done this way.
- Yeah, it's just more than numbers like the process as well. It's not just, production. I always have to think about how to stay behind a stage, like it all the store people. It's not just focus on the front part of the production. You always have to see the back picture as well. So like if

anything can do to improve the store and to make everything go smoothly, especially when you increase production but like there are only four workers there. Yeah and they have to manage everything.

Responsibility of Employees

Positive

- Well in the last year or two I've been included in more of what's been going, structure wise, upgrade wise. They've been asking me a lot of feedback of what I think I'd like to make the job easier, whereas prior, never really happened, it was just put in place
- We've taken an approach that we will test for all those, even if our customer doesn't want that. But more, because ethically, we prefer to sell a wholesome product rather than, like, because you don't know, it doesn't mean it won't hurt you.

Negative

- Unless the individual themselves want to push it again, there's a good chance their idea is going to get lost. I struggle to remember what I'm doing at the best of times without remembering what other people are doing as well.
- Just a bit more preparation understanding the different waste streams a little bit better. Just going with whatever the contractor says isn't the right thing to do because of course they want to put in the most expensive, shiny things that they can. I think that the study that they did only went for about two weeks and they barely took any samples. So, it should have been months. And I think a little bit of research into the instrument as well.

Appreciation of Employees

Positive

- This is what excites me about being part of it. Getting asked to be in manager meetings, being asked for your input.
- Since I've been here, in my experience you know anyone that's got an idea, whether it's good, bad or indifferent, you're always welcome to put it forward and no one's, no one's, like, brought down or anything for bringing up ideas. They like you to do that, you know. You're encouraged to come forward with an idea, and like I said I've, I take it on where I encourage the boys to give their opinion and that sort of thing, so and I find it works well.
- Where you're going well, where we need to improve. If you're doing well, if you need to improve. If there's any upcoming time off.

Negative

Nil.

Risk Taking for innovation

Positive

- And if you don't have any innovation, you'll become stagnant and stale with what you've got.

- To me it means you're doing something outside the norm within the industry to be a leader in change, so to speak.
- Back in the 50s when it was built, and you look at the history, and a lot has happened since then. It hasn't really stayed the same for very long at all. The feeling I get is that everyone doesn't want to keep it the same as it is now either. They want to keep it looking to drive it.

Negative

Nil.

4.4 Innovation framework

The innovation framework needs to differentiate itself from existing projects (parent company/MLA CISP program) at Plant A where the framework engaged with the business on complex problems requires complex solutions. The parent company/MLA CISP program conducted by the Risk Innovation Manager simply reported existing projects being conducted at Plant A. The process of designing an innovation framework is underpinned by Systems Leadership Theory and the 20 questions, combined with system thinking where we seek to understand the learnings for a single business in a complex organisation (Jackson 2007).

Firstly, the innovation framework works at multiple levels:

- The Systems Operation Team must work at Level 3 (Figure 3) and work with key staff to develop, evaluate, redevelop and effectively communicate innovation options;
- The Systems Design Team must work at Level 4 (Figure 3) and work with the Integration Team to ensure the innovation framework is rigorous; and
- The Integration Team must work at Level 4 and 5 (Figure 3) to ensure productivity and profitability is sustainable.

The general concept for traditional linear innovation processes include:

- Idea generation - where we encourage the generation of ideas and their registration;
- Screening an idea selection - ideas are selected, evaluated and included in portfolios;
- Development - including project and product development; and
- Diffusion into the organisation, sales and/or markets.

This process can include a number of different processes depending upon the idea developed. This includes:

- Traditional process: from idea to launch;
- Anticipating sales: the tailor-made approach (open order);
- Anticipating sales from a given client specification (closed order);
- Process started by a call;
- Process with a stoppage: waiting for the market;
- Process with a stoppage: waiting for the advance of technology;

- Process with a stoppage: waiting for the market and for the advance of technology; and
- Process with parallel activities.

4.5 Systems Design

The team process was utilised to create an understanding of what the system needs to achieve. In understanding the context of the problem, we must understand the company policy, the legislation surrounding the business, current practices, and any other factor that may have affected innovation within the business. For Plant A there was an existing project funded by MLA that was largely unknown to most staff at the plant. This project was not outlined until late in the project.

Secondly, we needed to understand the purpose, why the system was chosen for redesign and what behaviour does the innovation drive. We needed to also understand the outcomes we wanted to achieve. This was clearly defined in the project objectives where we want to understand the cultural barriers that stand in the way of the systematic development of innovation at Plant A. In redesigning the system, we used a Systems Leadership approach to understand the symbols, systems and behaviours associated with understanding such a complex innovation framework.

Having clearly set out the context and purpose of what we want to achieve, we set out to understand our current state and seek to formalise what the future state of innovation will look like. This practical outcome will be underpinned by our theories. Firstly, innovation is driven by employees of Plant A. Secondly, there is no one innovation framework that is correct for every type of organisation and lastly, that our innovation must be driven by a chaos or need within the organisation, be that a need to fix a problem or create an opportunity. Finally, there is a team who implement and innovate, a team to ensure we are renovating within the innovation frameworks and there is a team driving innovation at all levels inside the organisation.

4.5.1 Current State

Context

The Systems Design Team see the parent company brand as being sought after and a leader in quality in domestic and international markets. From an innovation perspective there are no new products and the organisation is a bit of a “follower”.

The two other contextual issues of note include the Plant A community and the staff of Plant A. The senior staff at Plant A see themselves as being highly proficient in integrating the different business systems. Secondly, the Plant A community is extremely important to staff as Plant A is an integral part of the local town of Plant A and a large provider of employment to the town. This in turn feeds into all levels of government and the ability to leverage opportunities back to Plant A. Numerous examples including local airports and trains can be used to demonstrate this point.

Purpose

The culture driven innovation framework was chosen as it has the potential to have the greatest effect on the productivity and profitability of Plant A. The current state of this system is that it is a standard operating procedure that exists to fulfil the needs of ISO-accreditation and it also fulfils a need to satisfy corporate stakeholders. It currently does not fulfil the needs of Plant A and its staff. The behaviour that is driven by this system is the adoption of innovation and its ability to improve the productivity and profitability of the plant and the business (O'Donnell 2014). This behaviour is

outlined in Table 3 and focuses on the organisation being client, market or technology focused, scores that are currently quite low compared to the culture that drives those behaviours.

Design Criteria	Current State
Current measurement	The current system calls for measurement to be conducted. This is either not occurring or has discrepancies.
Expected savings or benefits	Include increased engagement and transparency between departments with an increase in integration, trust and profitability and a shortening of project delivery.
Who currently benefits from a poor system	Includes auditors, AQIS, WHS (power / authority), gate keeping within the organisation.
Underlying hypothesis and assumptions	The process is currently ad hoc with most proposals being knocked backed. There are current systems in quadrant C (Figure 1) where people work around the system to achieve results.
The role of the owner	There are three current owners of the system in the parent company, Plant A and another parent company plant.
The role of the designer	The role of the designer is currently unclear.
What are the boundaries	The boundaries of the system are currently unclear.
Innovation flowchart	No innovation flowchart currently exists.
Transfers and transformations	It is currently a transfer system rather than a transformation and transfer system.
Linkages to other systems	Linkages are currently operationally based with little financial or social interdependencies developed.
Authorities and accountabilities	Unclear.
Control and audit processes	No audit process.
Analysis	It is currently differentiation rather than equalisation.
Social processes	No social process has been conducted.
Full system documentation	There is no system documentation.
Cost benefit	There is little cost benefit analysis completed.
Training plan	In most cases there is no training associated with the innovation, except with the implementation of equipment within the lab.

Table 12 - Current state

4.5.2 Future State

Context

There was no change for context from the current state to the future state for the innovation framework.

Purpose

The innovation framework was chosen as it had the potential to have the greatest effect on the productivity and profitability of Plant A. The future state changed from the current state to include the capturing and transforming of innovative ideas within a structured framework to allow the organisation to support a sustainable quality product and process base.

Design Criteria	Future State
Current measurement	Develop a range of metrics to efficiently measure project success from a technical, commercial and social context to clearly understand the project success. These metrics will be identified in the initial project document and their effectiveness critiqued by the Integration Team.
Expected savings or benefits	Include increased engagement and transparency between departments with an increase in integration, trust and profitability and a shortening of project delivery.
Who currently benefits from the system improvement	The staff, the senior management team and the General Manager at Plant A and the parent company
Underlying hypothesis and assumptions	There is a robust innovation framework underpinned by engaged staff. This allows for: • People to have ideas - we need to explore these ideas • Feedback about ideas is a fundamental need • Benefits can be articulated i.e. cost benefit analysis can be calculated and assisted by staff training • Products and processes can include all areas and all disciplines • Proposals need to be and to end, tested and include rigorous assumptions
The role of the owner	The role of the owner or General Manager is to ensure that the innovation projects are integrated to create a synergy within the organisation.
The role of the designer	The role of the designer is to ensure innovation framework as a system remains robust. This will occur through periodic cultural reviews of staff to pinpoint system strengths and weaknesses by the Systems Design Team. Engagement with the Systems Operation Team to ensure the system is working.
What are the boundaries	Plant A is a boundary to the system. It is essential that innovation be fit for purpose and be sustainable including corporate social responsibility opportunities.
Innovation flowchart	No innovation flowchart currently exists but will be developed in the next phase of the project.
Transfers and transformations	Capture transfers and transformations within the innovation framework.
Linkages to other systems	Create linkages within the parent company including the corporate innovation system.

Authorities and accountabilities	Introduce MACI system to capture authorities and accountabilities. This will be articulated in Phase 2 of the project.
Control and audit processes	Measures to be developed as a part of each of the individual project plans.
Analysis	Analysis to be developed as a part of each of the individual project plans.
Social processes	Social processes to be developed as a part of each of the individual project plans
Full system documentation	The system documentation includes the new standard operating procedure, the individual project plans and the individual outcomes of the design criteria as detailed in the future state.
Cost benefit	Cost benefit analysis will be developed with each of the project plans and any synergies to be developed at the project integration stage.
Training plan	Training plans will be developed with each of the individual projects.

Table 13 - Future State

4.6 Innovation Framework

4.6.1 Introduction

Traditionally, the innovation process has been a predefined sequence of steps starting with idea generation, selection of projects, and development of proposals followed by a project implementation or launch. The current standard operating procedure for innovation at Plant A relies on a linear approach where ideas are driven top-down with a focus on technical capacity within key areas.

Levels of thinking seeks to understand how people think and work at different levels within an organisation and how they utilise that thinking in dealing with all stakeholders. Different levels of thinking are required within an innovation process for the different teams. An Integration Team needs to work at Level 4 or Level 5 and this maps levels of thinking to innovation. The Systems Design Team needs to work at Level 3 or Level 4 to ensure the systems are working within the plant while the Systems Operation Team needs to think at Level 2 or Level 3 to design their individual innovation adoption. The Systems Operation Team works with their individual teams at Level 1 or Level 2.

The common theme throughout the meat processing industry is that inputs, processes and outputs are very different across the industry. Each of the systems are extremely complex interrelationships between operational, social and commercial elements to produce these final outputs. The notion that a single system design can meet the needs of all plants is questionable. From a team process perspective, the development of the system by the individuals within the plant allows the group to take ownership of the framework that has been developed.

4.6.2 Innovation teams

This framework relies on culture and breaking down the elements within symbols, systems and behaviours to understand where the model needs to be improved (Macdonald 2019; Hogan 2015). The model also relies upon the system to be employee driven where the Systems Operation Team moves through a number of innovation cycles to embed the learning inside their individual teams (Gressgard 2014). Secondly, each team must utilise their own innovation model that best fits their work practice. Finally, we use complexity theory and contingency theory to implement a range of

innovation pathways that best fit the complexity inside the processing facility. The system design phase utilises three distinct teams:

- Systems Design Team
- Systems Operation Team
- Integration Team

4.6.3 Systems Design Team role

The role of the Systems Design Team is to implement team processes that take account of the culture of the organisation and the current systems that are in place. The Systems Design Team utilised a systems design flow map to develop the innovation system. This includes:

- An understanding of the existing system and current mythologies. There was a particular focus here to understand systems that were approved but not effective and systems that were effective but not approved;
- The development of a conceptual design with a focus on achieving the desired mythologies, the conceptual design must understand and predict the technical, social and commercial interdependencies that exist within the innovations developed;
- After the detailed design was completed it was ready for testing in the following milestones where the framework will be tested and adjusted. It is at this point where the employee driven innovation will occur with innovation methods developed to suit the individual teams and their requirements. The individual innovation methods will also be adjusted over time by the Systems Operation Team to ensure that a suite of innovations is being developed to enhance productivity and profitability.

4.6.4 Integration Team role

The role of the Integration Team is to understand the complexity of project opportunity throughout the processing plant and understand the impact of multiple innovations upon the plant. The process owner as per the future state is the General Manager of the plant. It is the role of the process owner to create, maintain and improve the group to achieve the innovation objectives for the plant and for the group. It is the team's role to be actively involved in the team process and contribute critically to the planning and implementation of the innovation system. It is their role to understand the effect of their element on the other element managers within the team. The element managers include technical, commercial, social and quality.

4.6.5 Elements of innovation

The implementation of the innovation framework takes a number of issues into account, including the outcomes of the quantitative and qualitative research and the systems design process. Qualitative research showed a significant difference between organisations who had received management training within a culture framework and organisations that did not receive this training. The quantitative research presented a need to improve a number of key areas. These include:

- Innovative Behaviours
    - Marketing-focused innovation-related behaviours including the development of marketing programs for our services/products can be improved.
    - The adoption of novel ways to market our firm will enhance elevation.
    - Our marketing programs can be implemented to stay ahead of the market.
    - Implementing innovative marketing programs will enhance innovation within our business.
- Symbols of Innovation
    - Physical arrangements for innovation
        - There needs to be meeting areas and discussion rooms within our firm where employees can meet to discuss new ideas and ways to implement innovation.
        - We must set aside space within our office layout where employees can meet and talk informally about new ideas and novel ways to solve problems.
    - Rituals of innovation
        - We need to make an effort within this firm to celebrate the adoption of new practices and processes.
        - We need to make an effort within this firm to acknowledge and reward the implementation of new services and ways of doing things.
- Mythologies for Innovation
    - Internal communication supporting innovation
        - Open communication of new ideas and practices needs to be improved within this firm.
        - Information about new ideas and new ways of doing things needs to be more effectively communicated throughout the firm.
        - We need to improve the quality of internal communication related to new ideas and processes to be high.
    - Competence and professionalism supporting innovation
        - We require creativity and innovation to be part of the professional skill set of employees within this firm.
        - We need employees within this firm to have a high level of competence in developing and implementing new ideas.
    - Appreciation of employees supporting innovation
        - We need to recognise and reward employees who implement new ideas within this firm is the norm.
        - We need to take the time to acknowledge employees' efforts when they solve problems in novel ways.
        - We need to appreciate the efforts of employees who bring in new practices.

Of the 15 key areas of the quantitative research, six elements were identified as requiring special attention to improve innovation at Plant A. The other areas to underpin innovation include:

- Innovative Behaviours
    - Client-focused innovation-related behaviours
    - Technology-focused innovation-related behaviours
- Symbols of Innovation
    - Stories about “heroes” of innovation

    - Language supporting innovation
- Systems for Innovation
    - Success in innovation
    - Openness and flexibility for innovation
    - Inter-functional co-operation supporting innovation
    - Responsibility of employees for innovation
    - Risk-taking for innovation

4.6.6 Systems Design Team

The role of the Systems Design Team is to implement team processes that take account of the culture of the organisation and the current systems that are in place. The Systems Design Team utilised a systems design flow map to develop the innovation system. This includes:

- An understanding of the existing system and current mythologies. There was a particular focus here to understand systems that were approved but not effective, and systems that were effective but not approved;
- The development of a conceptual design with a focus on achieving the desired mythologies. The conceptual design must understand and predict the technical, social and commercial interdependencies that exist within the innovations developed; and
- To ensure the innovation process remains approved and effective.

4.6.7 Systems Integration Team

The role of the Integration Team is to understand the complexity of project opportunities throughout the processing plant and understand the impact of multiple innovations upon the plant. The process owner as per the future state is the general manager of the plant and the team includes the senior managers. It is the role of the process owner to create, maintain and improve the team to achieve the innovation objectives for the plant in line with the organisational goals.

It is their role to see how each innovation can be enhanced and to finally approve for implementation. A part of this process is to send innovation projects back to the Systems Operation Team to see what else can be enhanced during the project process. It is the team's role to be actively involved in the team process and contribute critically to the planning and implementation of the innovation system. It is their role to understand the effect of their element on the other element managers within the team and add to the integration. The element managers include technical, commercial, social and quality.

4.6.8 Systems Operation Team

Within an employee driven innovation framework the Systems Operation Team has the role of working with plant managers to develop ideas, develop the projects and finally implement and review the success of the individual projects. An essential component of this process is project evaluation and the ability to understand the implication of innovation. This is a process that is poorly undertaken within most organisations. The common focus is to understand the commercial, financial or social implications of the project, not to understand the effects on the interdependencies of these implications. The project process is an important learning for the Integration Team within the innovation process. The interaction between the plant managers, the supervisors and

superintendents are an essential component of the innovation process. It is an application of rigorous thinking to the innovation system.

After the detailed design was completed it was ready for testing in the following milestones where the framework will be tested and adjusted. It is at this point where the employee driven innovation will occur with innovation methods developed to suit the individual teams and their requirements. The individual innovation methods will also be adjusted over time by the Systems Operation Team to ensure that a suite of innovations is being developed to enhance productivity and profitability.

4.7 The innovation system design for Plant A

It was decided with the group to base the teams on the levels of work required within the plant. The role of the Integration Team was to both facilitate and take an organisational perspective of all innovation projects developed. The authorising officer for this team was the General Manager who has responsibility for the delivery of an integration of operational, commercial and social outcomes at the plant.

The COO is responsible for all operations at the plant and was therefore chosen to be the leader of the Systems Design Team. His role was to ensure that the innovation system is both effective and authorised within the plant and links to all other systems within the plant. As a manager of the innovation system and leader of the plant, the COO also has responsibility to continue his role to facilitate new ideas and mentor all plant staff on innovation options.

The Systems Operation Team has a role to facilitate innovation within the business for consideration by the Integration Team. This process allows numerous projects to be put to the Integration Team for consideration rather than a project by project methodology. It is important at this point that the team recognise this process needs to consider operational, social and commercial measures in defining the project benefit to allow the Integration Team to compare a range of projects when looking to develop its future. The plant engineer was nominated as leader of this team due to the number of projects required in this area. There are numerous other projects being developed from an operational, social and commercial perspective.

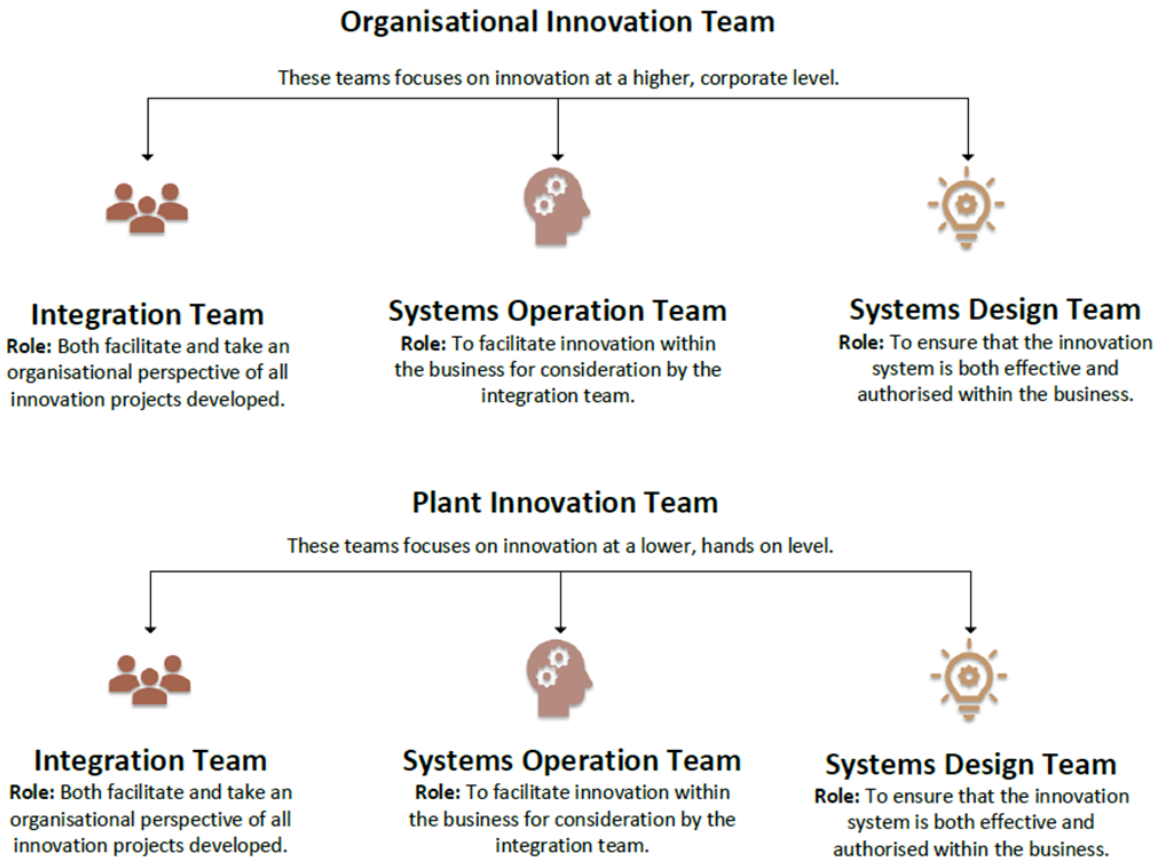

Figure 6 – Parent company (potential) and Plant A (actual) innovation structure

4.7.1 Innovation System

The innovation system was designed by the Systems Design Team for consultation with the Systems Operation Team to ensure an initial understanding was developed. As will be reported in later parts of this report, an action learning cycle was utilised to complete the initial embedding of this process.

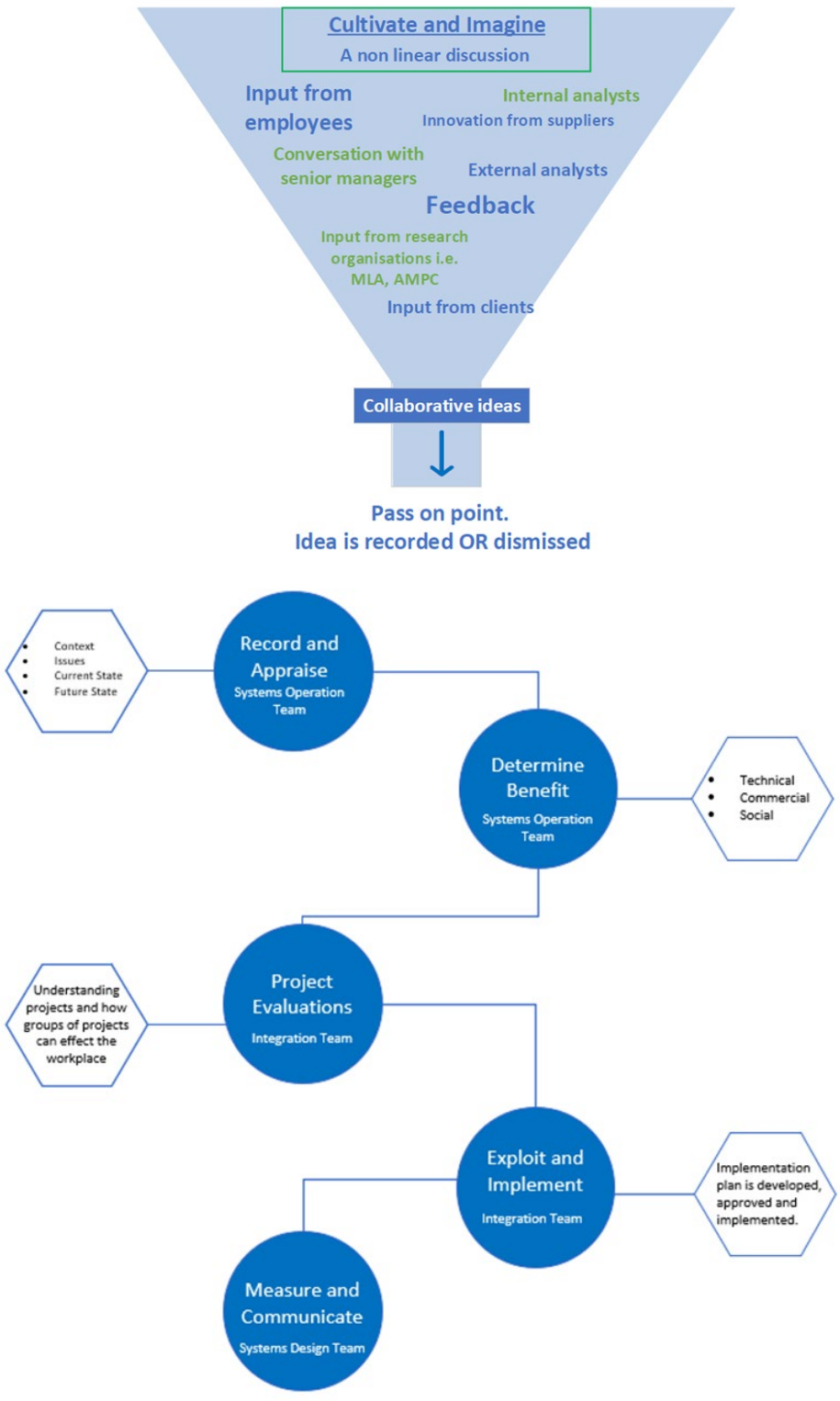

Figure 7 – Plant A innovation flow chart

It was decided by the Systems Operation Team that iLeader, the plant's current information system, would be included as a part of the process to capture ideas coming from staff. A clear directive was outlined by the COO for staff support. Of the 16 members of the Systems Operation Team, 13 of those members contributed to the process. The project team has worked with the Systems Operation Team to implement a clear process of engagement of team members to ensure contributing team members are rewarded.

4.7.2 Cultivate and Imagine - Systems Operation Team

The following steps are suggested during this part of the project:

- This process is nonlinear which means it involves members of the team bouncing ideas around in conjunction with senior managers.
- At this point members of the team should look at multiple ways to solve a problem thereby giving the Integration Team options to evaluate, and not be defined by what is concrete;
- The Systems Operation Teamwork with their individual units to stimulate ideas and opportunities for the plant.
- To generate ideas for the group, individuals included in this process should be:
    - Senior managers to stimulate ideas and opportunities.
    - Ideas from clients
    - Ideas from research organisations
    - Innovation put forward by equipment, software or any supplier
    - Internal or external analysts
- These individuals will assist in generating ideas in addition to ideas generated from within the group to fix problems they currently have.
- At this point, the concepts and ideas should start to crystallise for the Systems Operation Team as they have cultivated and imagined the opportunities for the problem.

4.7.3 Record and Appraise - Systems Operation Team

The following steps are suggested during this part of the project:

- This is the initial capture of the opportunity.
- At this point team members meet and determine the opportunity to join duplicate projects;
- There is an opportunity for a number of members from the Systems Operation Team to collaborate at this point.
- There is a clear statement explaining the project and the opportunity to the business by the individual Systems Operation Team member.
- The team will clearly articulate all issues associated with the project.
- The team members affected should work as a group and consider other problems that impact on this individual opportunity, not just look at the opportunity in isolation.
- The individual team member at this point should clearly outline what is currently happening under the heading “current state” as this will set a benchmark for future improvements.
- Individual team members or groups of team members should then look at the opportunity for what the answers could be in designing a future state. At this point we should consider multiple outcomes for the individual opportunities to allow the Integration Team to determine the best possible outcome.
- It is the team member affected by the opportunity or problem that completes this task, e.g. not all problems should go to the Plant Engineer. Delegation is key.
- This is the first point at which the Integration Team should decide on projects based on their experience;
- At this point the project document can be forwarded through to the determination of benefit or return to the individual Systems Operation Team members for further discussion with the team members.

4.7.4 Determine Benefit - Systems Operation Team

The following steps are suggested during this part of the project:

- Given a successful outcome with the first Integration Team meeting, the individual officer will work with internal or selected external specialists to complete the project design;
- At this point we should include technical, commercial and social measures to determine the benefit of the project to the organisation;
- Technical measures should include increases to plant efficiency and or environmental efficiency;
- Commercial measures should include increases or decreases in plant and equipment and or capital infrastructure and any increases or decreases in income or increases or decreases in expenditure;
- Social measures should include changes to staffing or improvements in safety or workplace enhancement;
- Many of these measures will have multiple effects e.g. changes to staffing could lead to improvements in commercial outcomes;
- The standard measure for net present value calculations should be a 25% return on investment and a period reflecting the term of the project. The project also includes a payback period calculation as a communication of the opportunity;
- This detailed analysis is then sent to the Integration Team.

4.7.5 Project Design - Integration Team

The following steps are suggested during this part of the project:

- Upon receiving a complete project outline including benefit with multiple outcomes expressed of a single opportunity, the Integration Team should conduct their own analysis to ensure completeness;
- The Integration Team should then look at the approval process for each individual project subject to plant operational and capital budgets for the next 3 to 5 years;
- At this point decisions are made on which projects should be retained by the Systems Operation Team for further analysis and which projects should be exploited or implemented;
- Communication at this point should also be made with the Systems Operation Team on further project opportunities that can be developed.

4.7.6 Exploit/Implement - Integration Team

The following steps are suggested during this part of the project:

- A project team is developed to implement the project and the individual evaluation measures are articulated;
- A detailed implementation plan is developed, approved by senior managers in the process and then implemented.

4.7.7 Measure and Communicate - Systems Design Team

The following steps are suggested during this part of the project:

- The Systems Design Team should oversee evaluation of individual projects in conjunction with the appropriate Systems Operation Team member;
- The technical, commercial and social measures developed should be compared to the final outcomes of the project and communicated to the Systems Operation Team to improve their performance in this process.

4.8 Action Learning Sets

4.8.1 Embedding the Learnings

A key part of the initial implementation has been the development of projects with Plant A staff. The projects have been a range of existing and new projects for the plant with the Systems Operation Team being the key drivers of these projects. Of the 40 projects, 26 work projects were sitting with the engineering department. The first stage of enabling these 26 projects was to facilitate project development between the engineering team and the actual project owner. By facilitating these projects, the project team were able to take a deeper dive into other opportunities not previously considered in the initial project outline.

During the six months that followed the development of the initial project was developed and an initial list of 40 project was developed. The workloads of the individual project leaders, and formation and composition of project teams were considered when determining which projects to approve for adoption, which projects to hold until next round and which projects are inconsistent with the strategies of the organisation and therefore will not be implemented. The selection and approval of projects for adoption and implementation will ensure that the work done on these projects will fall in quadrant A of the systems matrix as being productive and authorised.

The list of 40 project exceeds the capacity and capability of implementation for a firm of this size. The Integration Team is required to review the 40 projects that have been developed and assess them against the strategies of the organisation. The selection and approval of projects for adoption and implementation will ensure that the work done on these projects will fall in quadrant A of the systems matrix, Figure 1, as being productive and authorised.

4.8.2 Innovation Leadership

An initial innovation leadership program was conducted by Andrew Moore at Plant A as a part of the Certificate IV in Leadership and Management. This program is funded by Plant A as a part of its ongoing commitment to culture change at the plant. A number of projects were developed within this process that have now been fed into the innovation framework thought the Action Learning Sets.

Andrew Moore executed a learning session to assist in a design for new ideas by conducting a number of subjects within a Certificate IV in Leadership and Management. This process led to the development of a large number of project opportunities outlined in 4.8.3 Innovation Framework-Action Learning. Andrew utilised the opportunity of extending learning evaluation to include innovation outcomes to improve plant profitability and productivity.

The development of this process occurred outside the boundaries of this project but added significant learnings to a large number of staff members. This process is one that will be utilised in all future programs to stimulate organisational innovation. This will be further discussed in 6.2.

4.8.3 Innovation framework - action learning

Fortnightly meetings have been conducted by the Systems Operation Team led by the plant engineer. These meetings have clearly been supported by plant management including the COO and General Manager. As with any process of embedding a new system into the plant, the team has utilised an action learning set to assist with the continuous improvement process.

From this, a concept form was created for employees of Plant A to submit their ideas and allow feedback to be given. There were 25 concept forms submitted within a three-week period, with 19 of these projects progressing. The innovation operations team is to be commended for developing such a wide range of projects to improve plant operations.

5 Discussion

The project has been conducted with a number of elements to underline where Plant A is in respect to innovation and where it would like to be. The culture audit included both a qualitative and quantitative research component designed to understand the key elements of innovation behaviour (quantitative research) and a rich picture of innovation behaviour (qualitative research). This research was designed to break down innovation into symbols, systems and behaviours underpinned by culture to determine the key areas that need to be addressed within the innovation framework.

These Systems Design Team met on numerous occasions to articulate the context, purpose, current and future state for the development of the innovation framework that will be included in the innovation system. The team was drawn from the major departments within Plant A. The team employed included the Plant Manager, Human Resources Manager, Plant Accountant, Boning Room Manager, QA Manager and the Plant Engineer. It was a role of this team to ensure there were no silos within the delivery of the innovation framework and that all perspectives were considered in its development.

In developing the innovation framework, current state and future state the team considered the outcomes of the culture audit and the focus of the final stage of the project through the Systems Operation Team. It is essential to build communication between the departments to ensure seamless integration and sharing of information occurs.

5.1 Systems Leadership

5.1.1 The Innovation System Design

A key model of Systems Leadership Theory is ‘levels of work’ which is outlined in Figure 1 . At each level, the work should be made clear and will require thinking at the appropriate level of complexity. Supervisors work directly with output teams to apply systems of work as they have been designed (Level 1). Superintendents observe, analyse and diagnose performance of level teams and improving the application of the systems (Level 2).

The manager’s work is to develop systems that make sense to those applying them and improve those systems over time (Level 3). The General Manager's work is to align the systems inside a plant so that they integrate and achieve the overall plant’s purpose (Level 4). The work at each level also includes contributing to the work of their leader at the next level. If all people are working at the appropriate level, the system should work in this manner.

Systems design work is Level 3 work. Appropriately, the Systems Design Team in this project was made up of managers who worked together to develop the Innovation Management System for

Plant A. We facilitated this process and in doing so, we exposed those in roles with the title 'Manager' to the work of Level 3. The exposure highlighted aspects of the work of a manager that were previously unclear or not executed fully.

Systems integration work is the work of Level 4. We facilitated the Systems Integration Team to contribute their thinking about the integration and alignment of the innovative ideas put forward. In doing so, we exposed this team to Level 4 work allowing the integration of multiple projects across the plant rather than a focus on single projects as occurred when the innovation system was not installed.

The Systems Operation Team was led by the engineering manager who chaired meetings with representatives from throughout the site. Many of the departments were represented by those whose role is to carry out Level 2 work or the work of leading at Level 1. The team members worked with their individual groups and members of other teams to facilitate projects within their individual work areas. From learning activities conducted with RCA, the individual members also developed cross functional projects to improve plant productivity.

The Innovation Management System has been designed and installed at Plant A and is yet to be embedded. The long-term benefits will only be realised when the system becomes part of the normal work. The embedding of this work in the normal work at Plant A is not the object of this project.

5.1.2 Social Process

Understanding and deliberately seeking to design a constructive social process is another key element of Systems Leadership Theory. The role of leadership is to create the conditions where people feel valued and can reach their potential. This requires leaders interacting in ways that create an atmosphere of valuing contribution, working cooperatively and solving problems in an adult way. A good social process leads to productive social cohesion leading to a highly productive workplace and high functioning teams.

The installation and operation of the system will require a good social process demonstrated by the leaders and others at Plant A. It also requires time to embed these behaviours, so when key people need to be replaced, this social process can be disrupted. This allows the innovation system to be supported by good social process. When individuals are replaced, the system remains productive and profitable.

This is the case at Plant A where towards the end of the life of this project, the HR manager, who was assigned as the leader of this project, resigned. This led to the appointment of a new project leader, the Operations Manager. Due to the work of the new project leader, the action learning sets were highly effective in developing projects for the Systems Operation Team. Further, the Plant Engineer was appointed the leader of the Systems Operation Team and this worked effectively as well.

The Plant Engineer, as leader of the Systems Operation Team was supported by the Project Engineer. The role of the Project Engineer was to control the information flow of the innovation projects. This position became vacant when the first Project Engineer resigned and was vacant for the majority of the project time. RCA appointed a project officer to fulfil the role of managing the information flow to the projects. A second Project Engineer was appointed to this role but was replaced early in the action learning sets when they resigned.

Both occurrences have had a significant impact on the installation of the system. Occurrences like these will not be isolated, so it is important that the system design is robust enough to sustain operation over time and be clear enough so that new managers at all levels continue to operate and develop the system over time.

5.2 Innovation System

Before and during the life of this project, the innovation systems were working in Quadrant C with some systems innovation processes working in Quadrant D due to the CISP, as outlined in Figure 1. The national parent company CISP has had little effect on cultivating innovation at Plant A, rather the project reported on projects underway at the plant. The work of the General Manager has allowed for the plant to work in Quadrant C at a high level. This has been supported by his team in our research.

The initial term of the project was 6 months and was seen as an opportunity to implement a system at the plant with an understanding that a further embedding process needed to occur to change the culture of the plant. This initial project had to cease for a period due to funding issues which caused a significant disruption in the continuity of this project. The next phase of the project will embed the process into Plant A. It is expected that this process will take 18 to 24 months and importantly will include a project evaluation methodology.

There is a need for significant engagement with the parent company nationally to communicate the potential of the program. Plant A are missing an opportunity for productivity and profitability enhancements as they are not taking up the opportunity to overlay a national innovation system to the other plants.

Within the project there was a number of issues at the Cultivate and Imagine stage (Figure 8), there was a lack of communication within the individual teams at the plant. Upon the implementation of the action learning sets we saw a significant improvement in communication and an increase in the number of projects. This was largely due to an increased involvement by the plant COO. From this activity, the original 19 projects were put forward over three sessions. It is expected that this can continue in the implementation phase of the project.

The Record and Appraise stage occurred during the Systems Operation Team meeting. During these meetings, 12 of the 16 members of the team participated. As this was a new process for many of the group members, the number of participating members increased during the action learning process. There needs to be significant work during the next phase of the project to embed this into the Record and Appraise stage. During this process, the team leader focused on the members who were participating in the process, rather than those who were not. In this process, the Pareto Principle (Craft 2002) was implemented, to reward those members innovating within their own teams. The focus was on the 80% of team members that were participating.

There was a significant effort expended early in the project to demonstrate to the each of the Systems Operation Team members the elements of developing projects. The outcome of this process was to begin to demonstrate that there are multiple opportunities to innovate on a particular problem. The usual action is for a project leader to quickly arrive at a solution rather than completely understand the problem and the multiple solutions. This process within the innovation system allows us to explore multiple options in arriving at the best solution.

The role of the Integration Team is to evaluate multiple projects, rather than to evaluate a single project in isolation. A current methodology within the meat processing industry is to utilise payback periods in project evaluation. The criticism of this method is that is lacks the ability to look at the

scale of a project. By utilising a net present value calculation, we can better understand the effect on productivity and profitability across multiple projects.

This is a long-term process that has largely been outside of the bounds of this particular project. This process will be implemented fully in the next stage of the program. Essential to the implementation of this phase is understanding the effect of the innovation through measurement.

As outlined in the innovation flow chart (Figure 8) there is now a monitoring system to be built into future projects. In the past there has been little understanding of the outcomes of innovation within the plant, apart from anecdotal evidence. The current monitoring system is plant wide rather than focusing on the outcomes of particular projects. A new system allows us to understand the effects of individual projects on the plant as a whole.

It was found during the process that iLeader was an efficient tool to capture ideas for consideration by the Systems Operation Team. iLeader's greatest success is in the development of some operational and capital projects within innovation, however an additional technology system will need to be developed to implement social projects.

5.3 Employee Driven Innovation

The General Manager and Managers are all working at the level of their role. The major issue is a lack of a system that supports their level of thinking in innovation. The process that has been missing to date is the innovation framework that assists them to work across numerous projects at any point in time. The creation of multiple projects allows plant managers not only to select a single project, but to select from a wide range of projects.

The innovation system has been designed to have the Systems Operation Team working at Level 2 and 3 and the Systems Design and Integration Team to work at Level 3 and Level 4 (Table 14). Meat processing plants are complex organisations however projects can be simple. It is important for the Integration Team to understand the interdependencies between technical, commercial and social aspects of projects and think at Level 4 to understand the impact of the project on the plant.

The current project has been implemented at a plant level with good results. There is a need to embed the process over the next few years. Essential to the embedding of this process is the development of the skills at a Board, senior management and management level within the plant. Underpinning this skills development is a rigorous training program designed to facilitate systems development from a top-down and bottom-up perspective. This will be outlined in later sections.

Level	Responsible People	Action	Timeframe	The Program
Level 5	Board and Chief Executive Officer	Create an overarching innovation culture	5 to 10 years ahead	Managerial Leadership Program and Culture Audit
Level 4	Chief Executive Officer and Senior Management Team	Innovate by conceptual modelling across multiple systems	2 to 5 years ahead	Systems Design and Culture Audit
Level 3	Senior Management Team and Senior Managers	Innovate by improving individual local specific systems	1 to 2 years ahead	Innovation Leadership and Innovation Implementation
Level 2	Senior Managers and Supervisors	Innovate by analysing groups of like events	3 months to 1 year ahead	Innovation Leadership and Innovation Implementation
Level 1	Supervisors, Leading Hands and Staff	Propose possible improvements to set tasks	Up to 3 months ahead	

Table 14 Levels of Work and Innovation

5.4 Adoption of Innovation

The adoption of innovation across all agricultural industries and supply chains is a key requirement for rural research and development corporations. Cooksey (2011) in his paper “Yours, Mine or Ours: What Counts as Innovation?” questioned the notion of the expert model of research and development. He called into question the notion of an expert model where those who need to adopt should listen to the researchers with the knowledge. The linear innovation adoption perspective has a basic assumption that we should innovate first and then get the innovation adopted. This is a traditional view for the research community in Australia.

An alternative perspective is for research to be adopted it must meet our needs in the ways that we need it. This is a complex question; this perspective requires the adopter to understand their individual business system to the extent that they can measure the change in productivity through the adoption of a piece of research. This changes when an adopter chooses to implement multiple research projects into a system and understand the associated change because of this innovation. This is a very complex project process.

The traditional hard systems thinking works on single businesses for simple problems, such as a system where problems can be mathematically modelled in arriving at a solution to a problem. It also requires the adopters to agree on the problem context and also share values and beliefs. It is often difficult to define precise objectives where all stakeholders can agree (Jackson 2007).

During the project life it was difficult to get the project stakeholders to agree on all aspects of the project document. Many bottlenecks appeared due to the linear approach to arriving at project solutions. At the commencement of the project over 40 projects were in limbo as no clear project objectives were defined. This was not due to the fault of any single individual at Plant A. The issue lay with the system that could understand the complexity associated with projects and assist the individual stakeholders to arrive at a joint agreement on what should be done.

5.5 Complexity of innovation

5.5.1 Technical/Commercial

Plant A has a strong ability to satisfy the technical component of the process, however there is a gap when considering the social process. There is a primarily technical focus allowing the first idea that is stated often being the idea that moves forward without considering other options and effects or considering the options that can exist within a process. An example of this at Plant A was the spray chilling solutions. The technical research was done, such as the yield increases, but other components, such as social, were not considered as they did not engage as a multidimensional team and look at other options. In this research stage, they did not look at literature or technology journals in order to find possible alternative solutions.

A significant issue at Plant A and in other meatworks is the need to keep financial information confined to the leadership team, without providing scopes or budgets to other important staff members. The outcome of this is a lack of understanding of the interdependency between technical and commercial aspects of a project. An additional example of this system failing was a problem with the gloves and gowns as they were spending too much (Appendix 9.2). This was clearly an issue; the team was unaware of the severity and size until the financial process was assessed. This is an example of where there was a need for technical and financial interdependency at an earlier stage.

5.5.2 Technical/Social

An important part of the technical and social partnership is the need for successful communication and feedback loops. This enhances the process to allow ideas to be put forward for consideration within an innovation system. At Plant A, a concept form was developed with assistance from RCA and was uploaded into iLeader, as well as hard copies provided to staff (Appendix 3). This was a successful process, receiving over 25 forms in three weeks from a varying array of employees. 19 of these suggested projects are being developed further.

It was important to provide the originators name on the top of the form to allow for the feedback loops to occur, which were then later discussed at the different team meetings. Providing these forms to all employees at Plant A allowed for an open flow of communication and show and appreciation of employees at all levels of the plant.

5.5.3 Technical/Social/Commercial

Involving all three aspects of the innovation system, that is, commercial, technical and social, is an extremely important part of the process. An example of this was a query from the head of the Boning Room, as he believed there was a requirement for an analyst in his area. A qualified candidate was subsequently hired after consideration with the team and project officers at RCA.

There was a facilitation of that position which has now enabled the group to look at the efficiency of trimming in plant and utilising technology to understand the importance, or otherwise, of particular positions. From this, the trim management system was devised, however there was a maintenance issue that was overlooked during these discussions.

6 Conclusions/recommendations

The results from the research clearly outlined the effect of Systems Leadership and formal training on the organisation. This can be seen through the results achieved for both Plant A and Plant B. Plant A had a significantly higher level of acceptance of culture driven innovation. Given the success of the

initial research and facilitation, we recommend that the project move to the next phase and the critical work be conducted with the Systems Design, Systems Operation and Integration Teams.

The project in the future will be conducted in five steps. These steps include:

- Culture Audit – Innovation – Providing underpinning information to assist innovation implementation (current program);
- Managerial Leadership Program – Allows the leaders of the organisation to develop a 5 to 10 year innovation culture;
- Innovation Systems Design – Develops innovation systems to underpin staff behaviour (current program);
- Innovation Leadership – through learning a large number of innovation projects are developed; and
- Innovation Implementation and embedding – Innovation projects are evaluated by Senior Managers and approved projects move through to implementation and will include measurement (partly current program).

The culture audit, systems design and innovation implementation are a part of the current program. These programs have been adequately outlined in the current report. The new additions to the program have been added to underpin productivity and profitability outcomes from a bottom up and top down perspective. The elements are currently being implemented in other projects and are enhancing organisational innovation.

The Managerial Leadership Program draws on the worldwide experience of RCA in construction, mining and business to assist the development of the business leadership. Under the new programs we will assist the Board and Chief Executive Officer to create an overarching innovation culture for the next 5 to 10 years. In addition, we will assist the Chief Executive Officer and Senior Management Team to innovate by conceptual modelling across multiple systems. This is achieved by events that focus on:

- Developing the individual team members;
- Enhancing innovation teams; leading to
- Organisational profitability and productivity enhancement through innovation.

An essential component of the expanded program is the facilitation of new projects from the individual teams. This will be implemented under a number of programs including existing training programs and additional leadership programs. RCA currently trains 75% of meat processing leaders in Australia. Delivery of team leader, new supervisor and workplace innovation skill set as learning programs across Australia will be aimed at managers and supervisors to develop management and innovation skills. The innovation projects developed from the learning programs underpin the innovation implementation and a large number of projects are expected to be developed between Senior Managers, Supervisors and their respective teams.

The current project has successful implemented the project system into Plant A but is at the very early stages. Embedding the program will take approximately two years and a funding proposal is currently being developed to complete the final stage of the system embedding at Plant A.

7 Key messages

The meat processing industry is a complex business where innovation and change drive productivity. Many of the technical innovators within the meat processing industry see change from the perspective of their individual innovation or technology. Often this technology enters the business

through the senior managers and into the plant. We see an opportunity to expand that thinking to include all levels of the plant as part of an overall commitment to developing innovation capability building. This process drives behaviours throughout the plant that is then underpinned by the systems. These processes have an effect on the innovation cultures within the business that are expressed through symbols or mythologies.

Essential to the development of this project is a non-linear approach to the development of innovation within the plants. The methodology relies on multidisciplinary teams coming together to create opportunities throughout the plant from technical, social and commercial perspectives. The process relies on understanding what research and development is available to the plant and creating effective adoption systems within the plant. Essential to supporting staff to deliver these outcomes to the plant is effective learning and mentoring systems.

The cultural audit develops a deep understanding of the drivers for innovation in the meat processing industry including an understanding of symbols, systems and behaviours from a Systems Leadership perspective. The datasets include both qualitative and quantitative information of the key drivers and a rich picture of what is happening derived from the qualitative information.

The managerial leadership program provides a tangible and disciplined set of aligned innovation principles and models for business leaders to be effective in the role. These principles provide leaders with management tools to predict behaviour and therefore make informed decisions about how innovation will be socially accepted within the organisation. The program allows business leaders to make strategic decisions regarding innovation within the business.

By optimising innovation with a Systems Leadership approach, the management team is able to implement a framework to manage the complexity of innovation, both at a plant and business level. This provides a system that is both authorised and productive to develop innovation projects.

The innovation leadership program is a mentoring program to assist staff to develop, implement and evaluate the outcomes of projects. This includes further work on project design, current state and future state to fully develop project opportunities. This process allows the project team to fully understand the technical, social and commercial benefit to the organisation. This is the final embedding stage required at Plant A.

The aim of the project is to showcase to the wider Australian red meat industry a practical case study of designing and delivering capability building and knowledge in an enterprise. Enterprise innovation capability with underlying capacities to be innovative on a sustained basis, rather than producing one-off product innovations from time to time is needed to drive prosperity of the industry.

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9 Appendix – Project Champions

9.1 Boning Room Manager

The project context

- Reconfigure a product specification after a suppler request; and
- Meeting a market demand for Plant A products.

Critical issues

- Able to ensure the new product specification was commercially viable; and
- Understand this new product specification from the perspective of each of the business areas within Plant A.

The project plan

- Develop an understanding of the new product specifications and is effect on boning room yield;
- Engage with the different business areas to ensure the product was viable from all perspectives; and
- Ensure the product was logistically viable.

Outcomes

Operational

- There were no issues with boning room staff due to the project engagement through all stages of the project delivery; and
- The team worked through the logistics issues over carton sizes and delivered savings to the business.

Commercial

- The project was highly successful from a financial perspective.

Social

- The engagement of staff by the project team was highly successful and they celebrated the success of the project.

Environmental

- Reduced food miles by including 4 items in a box rather than 2.

Market

- Produced a new product demanded by the market.

Synergies

- Created synergies within the different departments; and
- There is an understanding that we can reconfigure many other products.

9.2 Production Manager

The project context

- The project sought to enhance utilisation of consumables at Plant B.
- There was a significant overuse of consumables at the plant leading to significant waste.

Critical issues

- There was a culture of resisting change within the plant.
- There was a lack of understanding of the cost of consumable use and its effect on profitability.

The project plan

- The project plan articulated the operational, commercial and social aspects of the project and included the QA implications.

Outcomes

Operational

- Due to cultural issues the project was not successful and the quadrant D (Figure 1) practices continued.

Social

- As this is a quadrant D system where it is based not authorised and counter-productive this is a significant issue for the plant both for this system and future systems implementation.

Environmental

- Significant increases in waste have occurred due to the increase use of consumables.

Market

- There are no specific market issues associated with this project.

Synergies

- There is an opportunity to include processes such as this at Plant A where the culture is more receptive to change; and
- The project was unsuccessful at Plant B due to the culture of the organisation rather than the leadership of the project which was professional.

10 Appendix 2 – Potential projects

10.1 Product market research – Phase 1

The project context

- As per the quantitative survey conducted there is a perceived lack of market research associated with the development of innovation within Plant A

Critical issues

- To develop a market research program to assist the development of future innovation inside Plant A
- To assist Plant A to engage with the parent company marketing team and proactively suggest options for future products and/or services

The project plan

- Develop a relationship with third-year agribusiness students from the University of Queensland to assist in the development of market options for Plant A

Outcomes

Operational

- Operational outcomes will include an understanding of new product opportunities or the better utilisation of products currently in production

Commercial

- The current commercial outcomes a loss of $10,000 per year; and
- The intention is to create a future benefit for the organisation by understanding the opportunity for new product development.

Social

- Social improvements will occur through linking to a major research organisation that can assist Plant A through the development of this relationship; and
- Future benefits associated with the development of high-quality industry professionals.

Environmental

- There are no perceived environmental benefits the stage

Market

- There is a clear market benefit by further understanding opportunities for new products or the better utilisation of existing products in domestic and international markets.

Synergies

- It is expected that the project will develop synergies both within the organisation and to external stakeholders.

11 Appendix 3 – Concept Form

Concept Form

Who:	**Originator Name**	**Department**	**Supervisor**
Office Use Only	**Feedback: ☐ Yes ☐ No ☐ Park**		
Notes:			
Concept Title:			
What:	**☐ Problem to Solve**		**☐ Idea for Improvement**
How:	**Proposed Solution #1:**		
	Proposed Solution #2:		
Why:	**If we can solve this, these are the benefits:**		