



# Final report

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## Supply chain feedback and extension to farmers to encourage best practise on farm

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## Executive summary

### Background

Coles Supermarkets is developing expertise and resources to enhance supply chain capability, specifically through the provision of improved data capture and analytics of datasets to provide enhanced feedback and consignment traceability. This project was designed to develop feedback systems and associated extension material from Coles back to cattle producer with the aim of improved beef carcass quality attributes, improved feed base, genetics, and husbandry practices so that on farm productivity is maximised. The project also included the scoping, implementation, and delivery of an integrated eNVD system.

### Objectives

The specific objectives were:

- Enhance existing feedback reports covering MSA and investigate/develop the inclusion of Lean Meat Yield
- Investigate the possibility of collecting data and reporting on other issues that could affect yield and grading outcomes such as nutrition, animal handling, and animal health.
- Understand current on farm managements systems and how they can evolve to use feedback from processors.
- Develop tools that farmers can use to maximise the benefit of feedback (i.e. more controlled reproductive practices, better nutrition — trace elements, glycogen loading prior to shipping for slaughter, etc.)
- Identify relevant external tools and systems and implement in the supply chain, as required
- Identify local champions who are willing to trial innovative practices.
- Benchmark on farm practices at the commencement and then measure annually to assess productivity improvements and provide case studies for other farmers to follow.
- Develop extension material related to the above
- Deliver three (3) producer workshops per year for three years covering the feedback and learnings from this project.

### Results/key findings

The Coles' supply chain program development and implementation was successfully completed with the following deliverables being achieved:

- Developed and implemented a Coles feedback system with Coles' producer networks, with inputs used to further refine over time
- Rollout of Coles eNVD nationally
- Increased adoption of available feedback by buyers and suppliers to improve livestock procurement and farm management decision making

### Benefits to industry

The role demonstrated supporting the delivery of impact for industry in this focus area by assisting to increase the efficiency with which data is collected, integrated, analysed, and presented for use to decision makers across the supply chain. The role enabled delivery of a completely digitised solution for completing consignment paperwork in the form of an integrated mobile app (eNVD) used across the Coles network nationally. This tool provides an example to the rest of industry investigating similar digital platforms.

### **Future research and recommendations**

Investment in the co-funded role was essentially a pilot program for Coles' to determine the correct fit for the position within the Livestock team within a large supermarket environment. The project was successful in achieving capability building within Coles livestock and assisted with improved use of data for decision making and provision of feedback to producers. The ongoing role will continue to focus on development of the feedback tool, integrated into the eNVD app, adoption of improved management practises on farm to meet Coles beef requirements, enhanced use of MSA data and working towards Coles' goal of being Australia's most sustainable supermarket.

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# 1. Project background and scope

## 1.1 Background

Collectively the red meat industry is investing hundreds of millions of dollars in technology and systems that will generate more and more data for use by supply chain participants. The assumption in these investments is that the data generated will be able to be used by producers to improve their performance (and profitability) and to ultimately improve the optimisation of the supply chain.

This project is an adoption strategy for the Coles supply chain. It provided an invaluable case study for the remainder of industry. The process, tools and material developed would become available for use in the wider industry. Industry will also be able to feed into this project tools and extension materials for testing and verification. Critically this project will allow for the impact of the adoption of feedback to be quantified which will help drive similar models across industry.

As the industry continues to develop feedback systems, the industry will need to focus on communications and extension of this to suppliers to ensure that the data/information that is supplied is in actionable form. Information needs to be presented in a manner that encourages action. A series of tools will need to be developed which will enable cattle producers to make improvements to their business.

## 1.2 Purpose

To remain globally competitive, it is critical that the productivity of each section of that supply chain is maximised. This project was designed to develop the feedback systems and associated extension material from Coles' back to the producer with the aim of getting uptake by the producer of improved genetics, nutrition improvement and husbandry practices so that on farm productivity is enhanced. The feedback system will have the potential to include Lean Meat Yield, MSA data, and potentially animal health feedback for cattle and lamb. The project also included the scoping, implementation, and delivery of an integrated eNVD system.

# 2. Project objectives

The objectives of the project were:

- Enhance existing feedback reports covering MSA and investigate the inclusion of Lean Meat Yield (LMY).
- Investigate the possibility of collecting data and reporting on other issues that could affect yield and grading outcomes such as nutrition, animal handling, and animal health.
- Understand current on farm managements systems and how they can evolve to use feedback from processors.
- Develop tools that farmers can use to maximise the benefit of feedback (i.e. more controlled reproductive practices, better nutrition — trace elements, glycogen loading prior to shipping for slaughter).
- Identify relevant external tools and systems and implement in the supply chain, as required.
- Identify local champions who are willing to trial innovative practices.
- Benchmark on farm practices at the commencement and then measure annually to assess productivity improvements and provide case studies for other farmers to follow.
- Develop extension material related to the above.
- Deliver three producer workshops per year for three years covering the feedback and learnings from this project.

## **3. Methodology**

### **3.1 Recruitment [Milestone 1]**

The initial phase involved recruitment and engagement of a full-time employee. A suitable candidate was outsourced from the business with the required skills and capabilities new to Coles livestock procurement team, to develop and implement Coles' supply chain strategy. The Supply Chain Officer role reported to the National Livestock Manager Beef.

### **3.2 Identify supply chain (producer) advocates [Milestone 2]**

Producer advocates (i.e. champions) were identified. This involved input from the Coles Livestock procurement team with specific knowledge of their supply base and potential candidates. Once chosen initial visits were made to the suppliers to inform them in detail of the project objectives and determine their goals in relation to feedback and proposed on farm practise change. Concurrently, Coles evaluated the transition to eNVD to Coles beef suppliers.

### **3.3 Facilitate Supply Chain Capability Building workshop for producers [Milestones 3-12]**

Facilitated Supply Chain Capability Building workshops for producers were held to provide advice on what the requirements of a feedback system for Coles would deliver, particularly in relation to accessibility of the feedback data and usefulness of the data for making on farm decisions. One on one discussions with suppliers were also held as required over the course of the project.

Each quarter an update was provided via progress reporting. Reports detailing quarterly activities included:

- Producer engagement log of activity
- Producer pain points in current feedback
- Opportunities identified to improve current feedback and its uptake
- Progress in terms of developing the extension materials using external and company product and know-how
- Development of network of key industry experts
- Extension activities undertaken
- Learnings to date
- Focus areas for the next quarter
- Visiting Coles cattle suppliers, introducing Coles farms program
- Scoping and development of Coles eNVD
- Visit producer feedback Champions (minimum of four advocates per quarter), work through current feedback and actions taken on farm. Benchmark and quantify improvements.
- Coles eNVD project implementation and expansion
- Project engagement & feedback from eNVD
- Future opportunities with eNVD
- Producer engagement for Coles farm program
- Animal health feedback development

Strategic reviews of progress were conducted by a project team including Coles livestock management team, Supply chain officer and MLA. These review meetings were conducted at least annually or as required when project steering oversight and approval was required to progress (i.e. when unexpected circumstances resulted in significant change in the agreed 12 months priorities). It involved demonstration of sufficient activity and impact to continue to support the role.

## **4. Results and findings**

### **4.1 Quarterly activities**

Activities undertaken in the project across 12 quarterly reporting periods, included:

- Collaboration with MSA team on MSA feedback to producers, and internal reporting for management.
- Regular workshops with chosen software provider to develop, implement and report on Coles eNVD
- Regular visits to Coles suppliers nationally to discuss feedback needs and implement Coles eNVD
- Investigate alternative dairy beef supply chains, evaluate, and report on outcomes
- Regular meetings with ISC team to attempt to have access to NLIS database to improve traceability and ensure food safety through the Coles supply chain, remains unresolved after three years.
- Workshop internal IT systems and integration of systems to improve information continuity
- Begin the process for investigating low carbon emission beef supply chains
- Participate in industry events over three years, i.e. Beef Australia 2021, Harvey Gate to Plate feedlot trial
- Supply chain carcass analysis as required by Livestock Manager
- Monitoring of plant PBR's and as required update.
- Opportunities identified to improve current feedback and its uptake (i.e. piloting feedback tool)
- Close of Coles eNVD nationally – project in its initial form has been finalised.

### **4.2 Producer Champions and implementing feedback systems**

Two southern beef suppliers agreed to participate as producer champions representing grass fed and grain fed/supplementary finishing systems. Another northern (QLD) feedlotter also participated as an accredited NFAS feedlot supplier to Coles. All suppliers share common goals about improving their production system and quality of cattle to meet Coles market requirements.

All producer champions were asked a series of questions to determine how they would progress with accessing and subsequently implementing change because of improved feedback.

The scope of the producer champions expanded across enterprise and feedback information.



Enterprise information:

1. What type of production system is run on the property?
2. Grazing systems and nutrition
3. Breed and type (Genetics)
4. Marketing objectives and supply to Coles
5. Animal husbandry practises
6. Identifying profit drivers
7. Areas for improvement

Feedback information:

1. What feedback are you provided with now?
2. How regularly do you access it?
3. How useful is it as a decision-making tool for the future?
4. What feedback would you like to receive?
5. How would you use that information?
6. In what form would you like to receive feedback?

The Producer Champions worked with the Livestock Supply Chain Officer over three years to plan and evaluate then demonstrate the adoption of new technologies and the feedback systems developed.

In the early project phase, Coles chose to work with Livestock Data Link (LDL) as the industry feedback solution, however it became apparent that LDL was not going to meet the needs of Coles and could not practically integrate with Coles Livestock IT systems where a number of processing companies provide service kills for Coles nationally.

At the end of 2019 after some time trying to work with LDL as a means of feedback to suppliers Coles Livestock decided to refocus and develop a feedback system integrated through the livestock booking system with summary feedback provided through the Coles eNVD app.

Five suppliers, including the three producer champions were brought together to start the process of designing a specific to Coles integrated feedback tool. Consignment feedback information would be delivered via the Coles App in a timely way that would provide relevant and useful information without over burdening the suppliers with content. This included MSA carcass analysis/performance of cattle purchased in (trade cattle) and subsequently consigned to Coles; benchmarking (company and MSA data) of own consignments, against peers and within Coles buying categories; live animal data matched with carcass data to provide weight for age and animal health results (in first instance).

The request from suppliers in developing this information via the App was that it needed to be easy to read at a glance, be meaningful in its own right as a stand-alone piece of information, be relevant to the business and assist in making decisions about 'next weeks' load. The feedback review group have been set up with the necessary credentials within the Coles Livestock Booking System to receive their consignment feedback through the App.

Development of the feedback tool stalled during the later part of 2020 as COVID restrictions were in place and farm visits could not be made. Fortunately, after months of being restricted to Victoria, suppliers throughout NSW were able to be visited. This was important in maintaining the engagement required for ongoing project development and maintaining the relationships that had been built over the two-year development period. Queensland suppliers were also engaged, particularly one of Coles' producer champions based in Queensland.

In the final year of the project the feedback tool was fully piloted with a roll out to producers other than the feedback review group. Overwhelmingly Initial feedback on the information provided has been positive, minor adjustments were identified in piloting, however full implementation was able to occur in a staged roll out. Ongoing development of the next stages of the feedback tool are progressing and will be included for piloting as testing is completed as an ongoing project. Follow up with these producers occurred routinely to ensure the App was working correctly and the information provided is adequate and met suppliers' needs.

The delay in implementing a satisfactory feedback solution to Coles beef suppliers has meant reporting on producer champion activities such as benchmarking change and supply to Coles has relied on other reporting and analysis tools

### 4.3 Producer feedback

Existing feedback provided to Coles' beef suppliers was delivered in the form of a traditional kill sheet with the following information: HSCW, sex, P8 fat, dentition. Coles also require that all directly consigned cattle are Meat Standards Australia (MSA) accredited, allowing suppliers to access further carcass eating quality feedback via the MyMSA website. As part of this project Coles are investigating the implementation of feedback systems which will allow producers to access all their carcass information in one place. The reporting and functionality need to provide timely, relevant feedback and will enable incorporation of new objective carcass measurements (i.e. retail meat yield as they become available through industry). Refer to Table 1 demonstrating improved feedback based on ongoing monitoring and benchmarking resulted in improved on-farm practises.

**Table 1.** On-farm practises to monitor and benchmark against with improved feedback.

Coles supplier/Producer Champion	On-farm practise
Southern grass fed and supplementary suppliers	<ul style="list-style-type: none"> <li>• Improve steer growth through autumn to allow for extended turn off times for grass fed cattle</li> <li>• Improve feedlot transition/induction management to achieve greater efficiency in the feedlot and reduce costs associated with health and days on feed</li> <li>• Assess current carcass traits and genetics to manage alignment with Coles 'ideal' carcass (&gt;3yrs)</li> <li>• Monitor/benchmark own performance against supply chain peers within specific Coles market segments</li> </ul>
Northern feedlot	<ul style="list-style-type: none"> <li>• Improve matching exit feedlot data with carcass data to benchmark cattle feedlot performance</li> <li>• Record and monitor breeder PIC's from saleyard purchases with carcass data to better inform future purchasing decisions, including genetics/breeds</li> <li>• Matching feedlot animal health information with animal health carcass data to improve management through the feedlot and inform future purchasing decisions</li> <li>• Monitor/benchmark own performance against supply chain peers within specific Coles market segment</li> </ul>

After visiting and discussing feedback options with the producer champions the following reporting and functional requirements were suggested and worked on as part of delivering a feedback system that meets the needs of producers now and will also have the flexibility of incorporating new objective measurement data as it becomes available.

- Benchmark reporting for individual suppliers within and between Coles beef categories and regionally for carcass traits and MSA Index
- Breeder origin report
- Linking live animal feedlot data at exit with carcass data in an easily managed way
- Objectively measured lamb fat scores
- Animal health feedback

Personal communication from within the Coles livestock team also served as useful feedback, although doesn't provide comparative objective information for effecting more informed decisions. Without useful feedback provided in a timely way, benchmarking existing on farm practises against the limited feedback provided is less meaningful and difficult to achieve.

## **4.4 Producer champions**

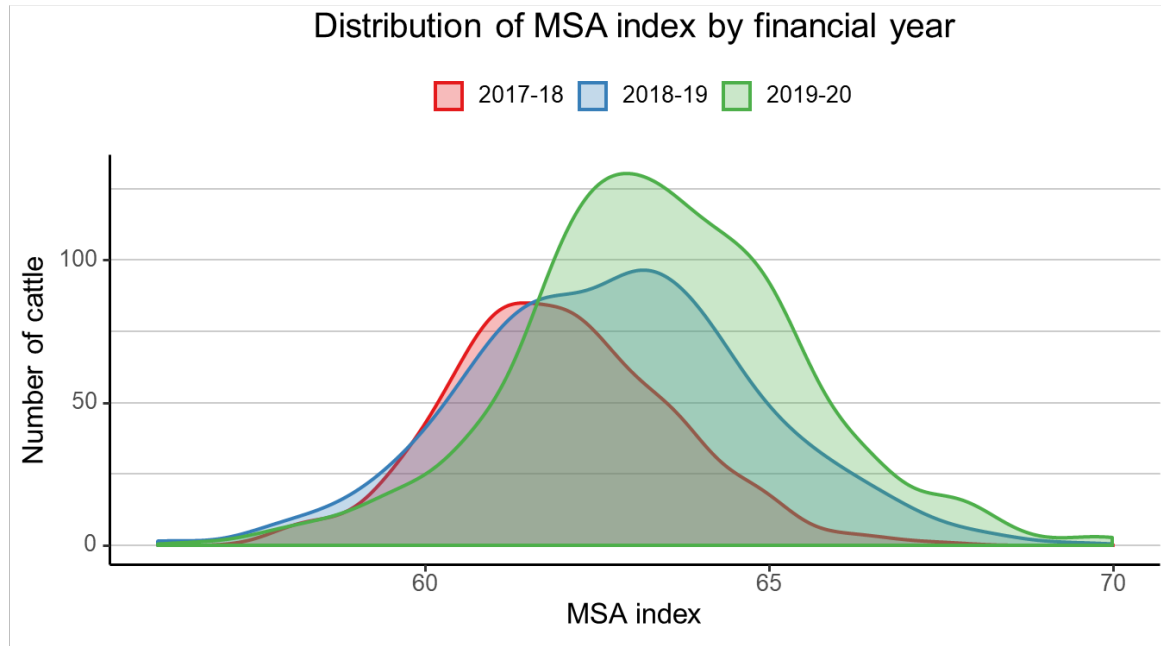
Over the course of the project the producer champions regularly reviewed their supply and consignment data, the following results from the individuals provide a snapshot view of their outcomes over the project period.

### **4.4.1 Producer Champion 1**

Producer Champion number 1. chose to monitor and benchmark against the following criteria

- Improve feedlot transition/induction management to achieve greater efficiency in the feedlot and reduce costs associated with health and days on feed
- Assess current carcass traits and genetics to manage alignment with Coles 'ideal' carcass (>3yrs)
- Monitor and improve MSA carcass performance for own bred and purchased in cattle to finish for Coles
- Monitor/benchmark own performance against supply chain peers within specific Coles market segments

Over the project period producer 1 focused on his own bull breeding program and supplementing his own bred cattle with the purchase of well-bred weaners with the potential to meet Coles requirements. The improvement in quality and MSA index is demonstrated in figure 1 below.



**Figure 1.** MSA Index and number of head comparison over three years [2018 to 2020].

Table one following, shows an increase in the numbers of cattle consigned to Coles over the last three years, the result of a focus on preparing cattle pre feedlot entry, genetic selection focusing on traits for maximum carcass quality and early finishing at the preferred weight.

**Table 2.** MSA Index by month and year 2018 to 2020.

Year	Month	MSA Index	No Ungrade's	No Head	No. Own bred	No. Purchased	% Purchased
2018	March	61.83	0	179	179	0	0
	April	62.41	0	76	76	0	0
	May	61.81	1	95	95	0	0
		Avg 62.01	1	350	350		
2019	February	62.31	0	141	111	30	21
	March	62.24	2	185	32	153	82
	April	63.31	1	136	60	76	56
	May	63.96	3	56	53	3	5
	Avg 62.95	6	518	256	262		
2020	January	62.52	5	254	148	106	42
	February	64.16	0	264	224	40	15
	March	63.49	3	121	81	40	33
		Avg 63.39	8	639	453	186	
<b>Total</b>			15	1507	1059	448	

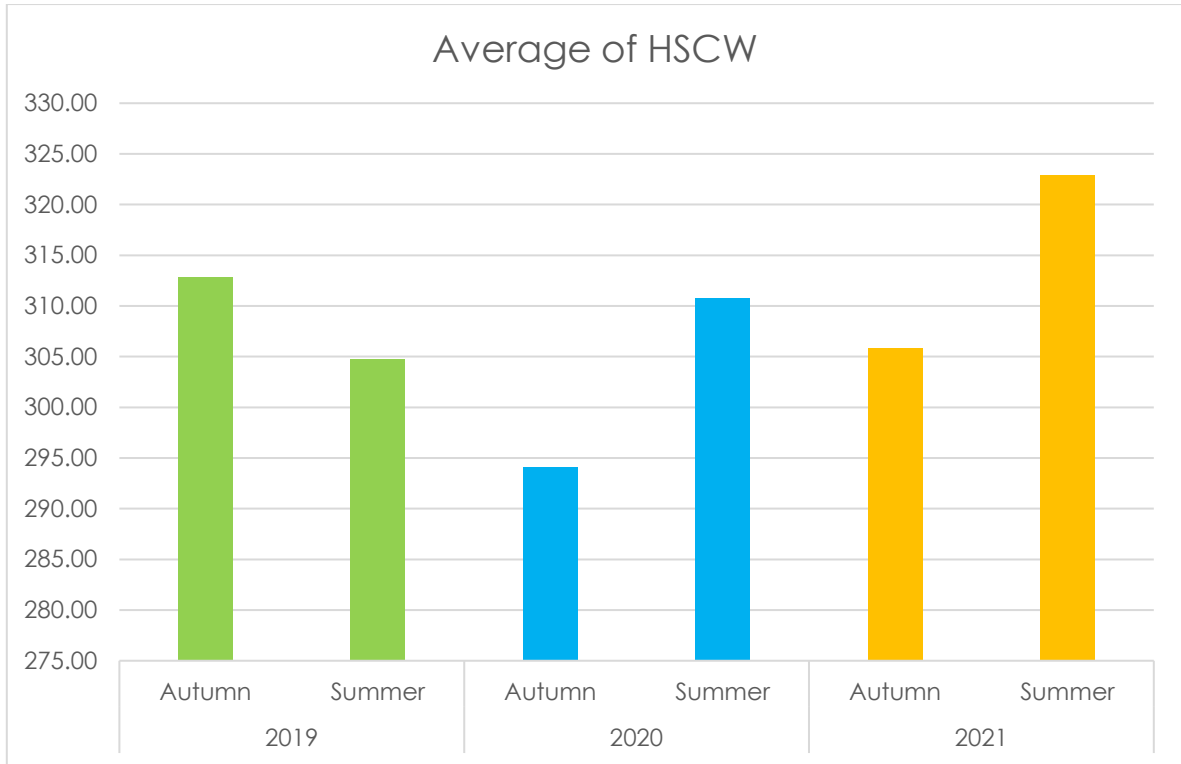


Figure 2. Carcase weight over FY 2019 – 2021 Producer 1.

#### 4.4.2 Producer Champion 3

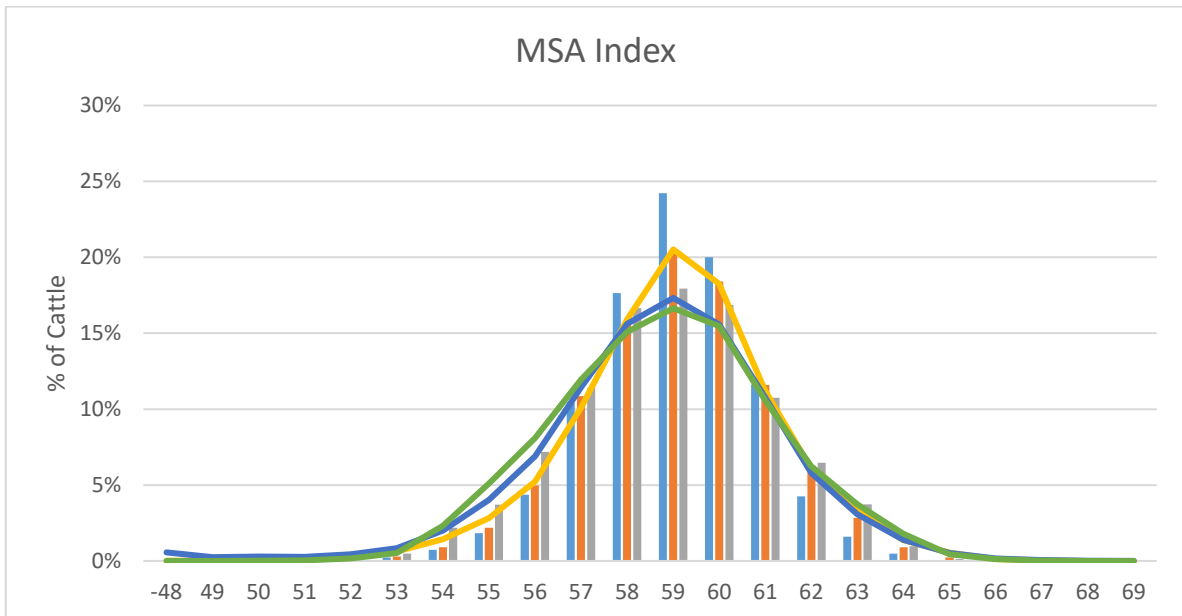
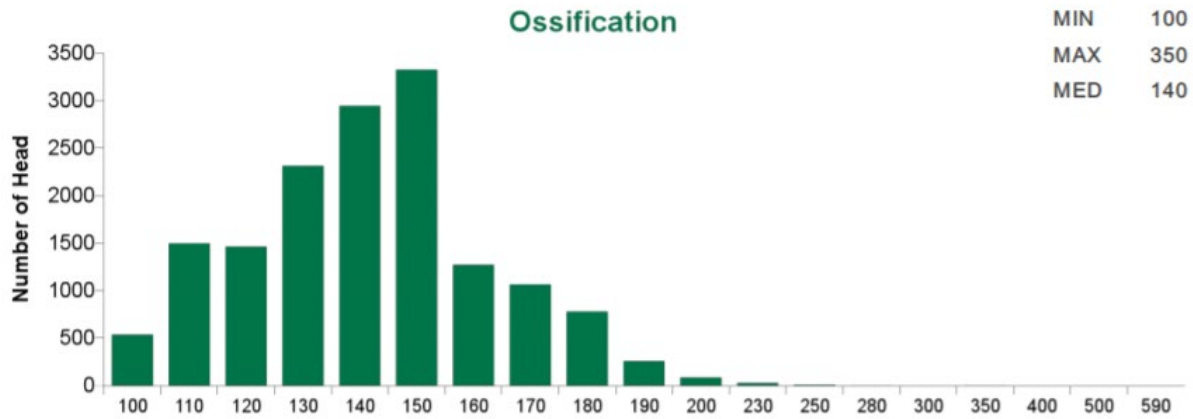


Figure 3. MSA Index over three years FY 2019 – 2021 Producer 3 and Coles QLD average for the same period.



**Figure 4.** Ossification scores for Producer 3 over the three years 2019 – 2021 combined.

Maintaining cattle on a balanced plane of nutrition with limited setbacks has been a focus for the producer champions, attempting to finish cattle younger and improve their overall carcass quality. Ossification results (along with other traits) have been a tool to monitor growth, backgrounding and inform decisions when purchasing cattle to finish for Coles where ossification at slaughter has impacted eating quality and ultimately MSA Index.

The below table compares Producer 3. supply from the same quarter in 2019 to 2020. Most cattle were processed at the same QLD abattoir both years, resulting in similar MSA grading outcomes with a small increase in carcass weight from an average in 2019 of 249kg to 255kg in 2020. One consignment of 156 head delivered to a different QLD processing facility in late July were approximately 10kg heavier with MSA grading results all more favourable with no ungrade’s and average higher index. The focus continues to be on purchasing the preferred type of cattle to supply Coles and their pre slaughter management to minimise the number of dark cutting cattle, however the impact of the drought on purchasing options made it more difficult between 2019 and 2020.

**Table 3.** Comparison of carcass data for producer Champion 3. between 2019 and 2020 (July to September).

Jul - Sept	Plant/s	No Hd	Avg MSA Index	Avg HSCW	Males	Females	Avg Oss	Avg Hump	Avg RF	% UG
<b>2019</b>	<b>294</b>	<b>1327</b>	<b>59.35</b>	<b>249.47</b>	<b>323</b>	<b>1003</b>	Hot <b>145.7</b>	<b>54.18</b>	<b>5.34</b>	<b>1.95</b>
<b>2020</b>	294	936	58.9	249.87	397	539	Hot 144.74	61.47	5.92	4.8
	1620	156	62.69	261.61	55	101	Cold 132.5	62.17	5.76	0
<b>Total 2020</b>		<b>1092</b>	<b>60.79</b>	<b>255.74</b>	<b>452</b>	<b>641</b>	<b>138.62</b>	<b>61.82</b>	<b>5.84</b>	<b>4.80</b>

## 4.5 Coles eNVD

In 2018 Coles commenced the development of a fully electronic National vendor Declaration system, and integrated into the Coles livestock procurement system. Successful implementation of the system has approximately 75% of all Coles cattle consigned now using the eNVD. The original software development and implementation plan was co funded through an MDC project, full results are available through the ‘Developing eNVD Capability for Coles Beef Supply Chain’ project P.PSH. 1141 report on MLA website. The current co-funded Coles Digital role facilitated the implementation of a fully electronic National vendor Declaration system for Coles.

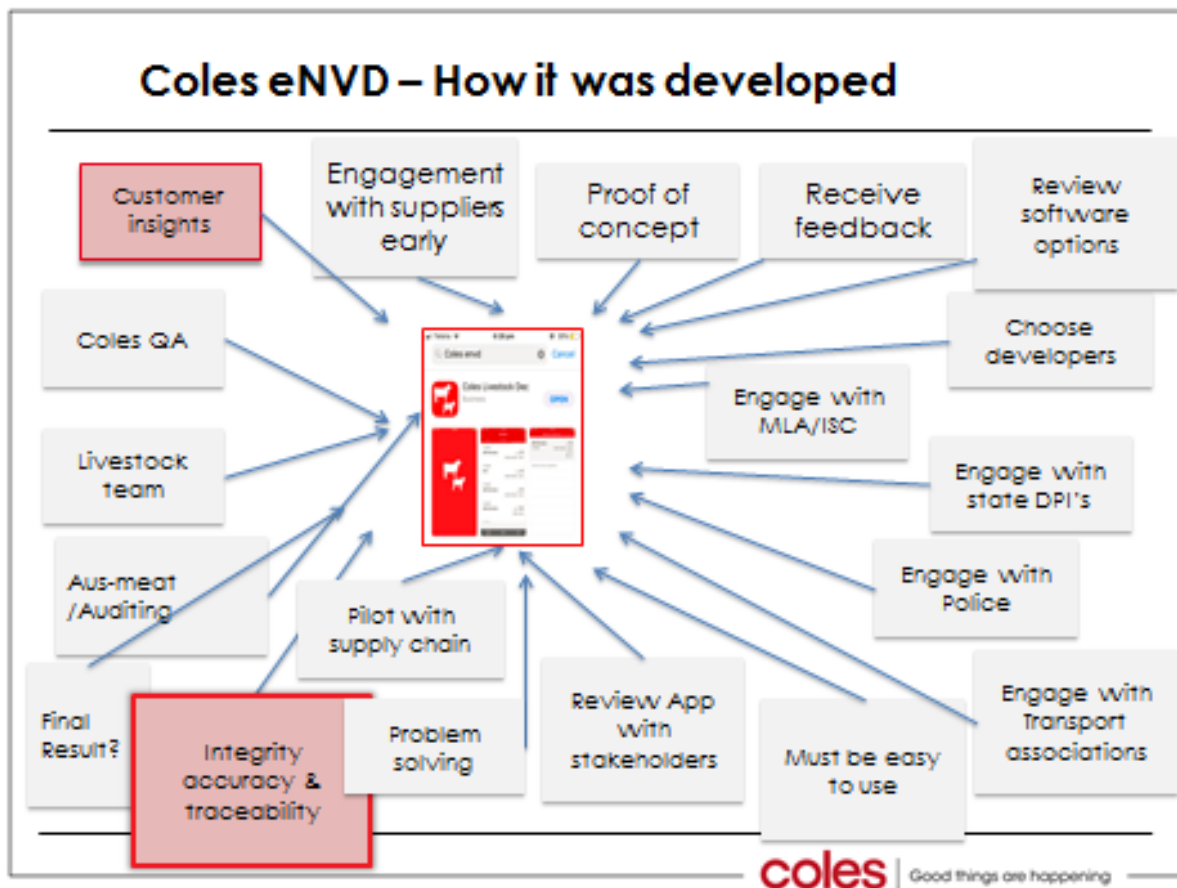


Figure 5. The process of reviewing, developing, and implementing the Coles eNVD

## Phase 2. Integrate individual animal data

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The Coles eNVD system currently operates independently of the NLIS system. The intention of Phase II will be to provide a level of integration so that:

1. Animals are scanned on exit from feedlot or farm.
2. The individual animal information is bundled with the eNVD information.
3. The individual animal information is checked on the NLIS database while animals are in transit
4. Coles and the Processor are notified of any inconsistencies in the information prior to the animals arriving at lairage.

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**coles** | Good things are happening

**Figure 6.** Coles eNVD Phase 2 rollout & individual animal data.

## 4.6 Learning and development

### 4.6.1 Training and support

The Supply Chain co-funded role visited various livestock supplier properties during the project to update suppliers on eNVD updates and procedures, discuss feedback requirements and on farm productivity issues. Within Coles, training and support was provided regularly by the National Livestock Manager, procurement team and internal teams working closely with the Livestock/Meat team in Coles.

Various support and training sessions were provided on a regular basis, as required.

### 4.6.2 Participate in internal and external networks to accelerate outcomes

Coles Supply Chain co-funded role participated in internal and external networks to accelerate outcomes, including:

- the Co-Innovation & Digital / Supply Chain managers networking event (March 2019).
- Supply Chain & Digital Value Chain Officer Workshop” forum (6th & 7th May 2020).
- Supply Chain & Digital Value Chain Officer workshop (1st & 2nd December 2020).
- Co-innovation networking workshop (17 & 18 February 2021).
- Co-innovation networking workshop (3 & 9 June 2021).



## **5. Independent third-party evaluation of co-funded Coles Supply Chain strategy**

### **5.1 Background**

In 2017 the Integrity Systems Company (ISC) board approved funding for up to 15 co-funded Supply Chain Feedback Extension Officer (SCFEO) positions. The purpose of these positions is to support the development and implementation of feedback systems and associated extension materials to improve producer decision making and management practices for enhanced farm productivity. The program evolved to also include Digital Supply Chain Officer (DSCO) and Digital Marketing Officer (DMO) roles to provide the specific support required within individual partner businesses to improve data use and insights for decision making and to support data integrity systems. In November 2020, ISC engaged Beattie Consulting Services, Inspiring Excellence and Warren Straw Consulting to undertake an evaluation of the co-funded resources program as a first step toward redevelopment of a business case to guide future investment in the program. This included reviewing the outcomes of the current Coles Supply Chain feedback role (P.PSH.1127).

### **5.2 Project scope and objectives**

The objectives for the ISC co-funded resources program evaluation involved completion of the following activities:

#### **5.2.1 Performance review**

Review the performance of Digital Supply Chain Officers and Supply Chain Adoption Officers to date, including:

- Alignment of co-funded resources with ISC 2025 strategy and contribution of impact
- Assessment of performance to assist employers in supporting Livestock Data Link (LDL) development and/or integration within supply chain (this can include third-party LDL systems)
- Assessment of benefit co-funded resources are delivering along the specific supply chain, including:
  - benefit delivered directly to producers within these supply chains
- Assessment of current structure of role and evaluation of whether roles and responsibilities of resources are currently meeting objectives, including:
  - career level/position within company to influence its digital strategy and implementation of digital resources

#### **5.2.2 Impact of co-funded resources**

Review of internal contribution to impact of co-funded resources, including a review of internal value creation being developed through co-funded resources and recommendation of any changes to current structure and management for maximum impact.

### **5.2.3 Impact Assessment**

Assess and define the predicted triple-bottom line impacts of investments made to date. The economic impact will be based on measuring the contribution to adoption and impact for key outputs (products) as noted above. Social and sustainability benefits (such as improving a processor's general innovation capability) will also be measured via the Meat and Livestock Australia (MLA) triple-bottom line impact assessment framework, which will be provided.

### **5.2.4 Analysis of Supply Chain Feedback Extension Officers**

A brief analysis of each of the 15 Supply Chain Feedback Extension Officer positions will be included, including commentary on the level of success achieved in each position against the above impact criteria.

## **5.3 Approach and methodology**

The evaluation methodology involved two key stages:

**Stage 1:** Assemble and review available project information and data for each role.

**Stage 2:** Complete a 360-degree stakeholder engagement process for each role via a series of phone interviews.

Stage 1 primarily involved assembly of project milestone reports and obtaining the most recent reports which were delivered in the interim, along with other background information relevant to each of the roles.

Stage 2 involved development of a series of questionnaires for a range of stakeholders for the 360-degree review in consultation with MLA/ISC. These questionnaires were initially piloted with a small number of stakeholders, and were reviewed and revised through consultation as required. Of the 16 positions identified in the project evaluation objectives, 13 were included in the review as the remaining three had only just commenced or been contracted.

The 13 co-funded roles reviewed are currently at various stages of delivery relative to their contract term of employment, with one role being cancelled by the industry co-partner prior to the end of the contracted term. Therefore, the number and type of stakeholders engaged for the 360-degree reviews varied depending on the stage of delivery of each co-funded role.

In addition to interviews with each of the 13 incumbents, interviews were conducted with 8 MLA/ISC stakeholders, and with 20 representatives from industry partner organisations (13 interviews) and a range of related beneficiaries and service providers (7 interviews).

## **5.4 Results and findings**

### **5.4.1 Overview of Partner Organisation**

Coles procure cattle for processing at six different service kill processing sites nationally. From service kill, carcasses are boned and packaged as their own retail ready product as well as preparing product for export. The SCFEO role was created to facilitate data flow back (feedback) to suppliers.

### 5.4.2 Stated Purpose of Role

This project is designed to develop the feedback systems and associated extension material from Coles back to the producer, with the aim of getting uptake by the producer of improved genetics, nutrition improvement and husbandry practices so that on farm productivity is enhanced. It will develop an adoption strategy for the Coles supply chain.

### 5.4.3 Overview of Role Achievements

Coles partnered with ISC to co-fund a SCFEO role to facilitate data flow back to suppliers and forward to product processing to enhance product quality and integrity. This role is positioned as part of the livestock team and has a national focus. The key achievement of the role has been the successful development and implementation of the Coles eNVD App to provide seamless transfer of supplier information to Coles. This has allowed Coles to overcome challenges with paper-based transfers of this information via their service kill processing plants and has been adopted by most Coles suppliers, covering 75% of livestock purchased.

The role has met with challenges, especially in utilising Livestock Data Link (LDL) as the mechanism to provide feedback to suppliers due to technical difficulties at Cole's service kill plants in integrating data uploads to LDL and working with Coles grids and purchasing categories. This has necessitated Coles taking a different approach and they are now custom building their own feedback system, capitalising on the success of the eNVD App. A pilot of the App is expected to be delivered in early 2021.

An on-going issue for Coles has been access to the NLIS database to undertake pre-slaughter checks on cattle to meet needs for lifetime traceability. Because Coles does not have a PIC, they have been unable to access the database, and see this as an issue to the efficiency of tracking lifetime traceability in the stock purchased from feedlots and other finishers. Coles see this is a major impediment to integrity of their products, especially for exported products. The top issues and opportunities identified by Coles on the delivery of the Digital role (See Table 4).

**Table 4.** Top three issues/opportunities focused on during role delivery as identified by Coles.

Issue/Opportunity	Progress Against Issue/Opportunity
<b>1.</b> Development and implementation of eNVDs app – digitising paperwork seamlessly from suppliers to Coles	Key achievement of the role with over 75% of all livestock now purchased utilising the app for NVDs.
<b>2.</b> Feedback system to suppliers	Coles aim to make carcass feedback accessible to producers/suppliers in one place. Scoped with producers/suppliers their needs for feedback. Initially investigated using MyMSA and LDL but problematic in its application. Currently working with Sapien to build the app and estimate to start piloting a custom-built feedback tool in early 2021.
<b>3.</b> Scoping sustainability across Coles beef supply chain	Coles Livestock (beef) team are conscious of the collective momentum across industry and markets to provide beef that is environmentally and sustainably produced, investigating what this means for Coles beef supply into the future is currently being considered.

Moving forward, the role will continue to focus on development and piloting of the feedback App, adoption of improved management practises on farm to meet Coles beef requirements, enhanced use of MSA data and working towards Coles sustainability goals for beef.

Role incumbents were asked to identify the three most important key issues or opportunities within the company that their role aims to address. These issues/opportunities are presented in Table 1 along with commentary on progress to date against each issue/opportunity.

## 5.5 Conclusions and recommendations

The evaluation of the ISC co-funded resources program has found the program overall, to be very successful in supporting partner companies to drive digital innovation across the supply chain. The key findings supporting the continuation of the program include:

- i) There is evidence to show that companies supported through the co-funded resources program have implemented new, innovative digital solutions to collection, integration, analysis, storage and visualisation of data across different parts of the supply chain from procurement of livestock to marketing the end product.
- ii) The incumbents in the co-funded roles have tested, trialled, piloted, innovated and adapted new digital innovations within their companies. This has led to improvements through feedback provided to suppliers and created processing efficiencies for the company as well as improving the use of data to gather insights and make decisions.
- iii) The incumbents have been instrumental in driving the process to embed new digital innovations into day-to-day operations by building capability within the partner companies to support utilisation of digital innovations to deliver on company priorities.
- iv) The Supply Chain Feedback Extension Officers have made progress in developing feedback systems to suppliers/producers to enable carcass quality and disease/defect data to be provided on an individual carcass basis. While this is still an area that requires further work to link feedback to on-farm practice change and improvements in carcass quality, the foundations have been built to move this work forward.

This review has also identified that most existing roles are likely to continue beyond the current co-funded employment terms regardless of potential ISC ongoing investment, and that most companies appear willing to continue partnering with ISC in this program if the opportunity arises. The issue for MLA to consider now is if the potential internal value to MLA/ISC, and/or potential increase in speed and quality of outcomes achieved by the roles with ongoing MLA co-investment, is sufficient to justify further investment in existing roles, especially considering they may continue anyway. Alternatively, MLA may consider there is more value to be gained by investing these resources elsewhere, either in more new roles in the same program (even potentially some within existing partner companies where a need for additional digital resources has been identified), or in other projects entirely.

If the co-funded resources program does continue in the future, whether that includes continued investment in existing roles and/or investment in new roles, the following recommendations are provided:

- MLA appoints an overall program manager to lead the program, drive the strategic direction and implementation of the program and to manage all positions, along with a network of internal

MLA/ISC mentors who are assigned to individual roles according to specific knowledge and skill areas identified to add maximum value to each role.

- Increased strategic planning around where investment is targeted to achieve program objectives.
- Develop a program Communication and Engagement Plan to support a more strategic approach.
- Improve the ability of both MLA and company partners to measure and report on the success of program investment through defined monitoring and evaluation processes.
- Review and clarify role employment criteria and employment terms.
- Identify opportunities for increasing the value of the network of co-funded roles. Opportunities include providing more opportunities for networking beyond the current 2 meetings per year (COVID-19 permitting) e.g. additional training workshops on topics of mutual interest, such as change management, or concurrent workshops on different topics at the same event with opportunities for co-mingling, or opportunities to present to each other on specific role achievements. Also, including team building activities and/or joint projects as part of the networking events to build relationships and trust between incumbents.
- Work with partner companies to review opportunities to increase adoption of available feedback by buyers and suppliers to improve livestock procurement and farm management decision making. Suggested opportunities include more face-to-face and one-on-one engagement and support for buyers to assist with adoption. Also define target metrics and measures of success for buyers in the use of feedback data, specifically more one-on-one support of producers with advice tailored to specific businesses.

## **6. Conclusion and recommendations**

### **6.1 Conclusion**

The Supply Chain co-funded role was considered a successful initiative by Coles contributing to improved traceability and reporting of consignments through the development of the Coles eNVD as well as development of a feedback solution, designed by producers to meet their specific needs. The position provided a resource to the Livestock team, development of tools and enabled outcomes that support building industry capacity and capability to drive improved use of data for traceability and decision making.

The objectives of the project were achieved through several supply chain feedback initiatives, The Coles' supply chain program development and implementation were successfully completed with the following deliverables being achieved:

- Developed, implemented, and evaluated the Coles feedback system with Coles' producer networks, with inputs used to further refine over time
- Rollout of Coles eNVD nationally
- Increase adoption of available feedback by buyers and suppliers to improve livestock procurement and farm management decision making
- Facilitating the adoption of new capacities in benchmarking

The co-funded resources program has been very successful in providing a catalyst to fast-track digital innovation capability within partner companies and to assist them on a trajectory toward improved use of data for internal decision making and provision of feedback to improve supplier decision making. To date, the program has generated the direct benefits for partner companies (Coles), however it is expected that benefits to producers will increase in the future as the digital officer role expands.

## 6.2 Key findings

The key findings of the project by facilitating the development and implementation of supply chain strategy were:

- Enhance existing feedback reports covering MSA and investigate/development of an integrated Coles beef supply chain feedback solution
- Develop and implement a fully electronic mobile eNVD specifically for Coles.
- Investigate the possibility of collecting data and reporting on other issues that could affect yield and grading outcomes such as nutrition, animal handling, and animal health.
- Understand current on farm managements systems and how they can evolve to use feedback from processors.
- Develop tools that farmers can use to maximise the benefit of feedback (i.e. more controlled reproductive practices, better nutrition — trace elements, glycogen loading prior to shipping for slaughter, etc).
- Identify relevant external tools and systems and implement in the supply chain, as required.
- Identify local champions who are willing to trial innovative practices.
- Benchmark on farm practices at the commencement and then measure annually to assess productivity improvements and provide case studies for other farmers to follow.
- Develop extension material related to the above.

## 6.3 Future research and recommendations

Investment in the co-funded role was essentially a pilot program for Coles' to determine the correct fit for the position within the Livestock team within a large supermarket environment. The project was successful in achieving capability building within Coles livestock and assisted with improved use of data for decision making and provision of feedback to producers. The ongoing role will continue to focus on development of the feedback tool, integrated into the eNVD app, adoption of improved management practises on farm to meet Coles beef requirements, enhanced use of MSA data and working towards Coles' goal of being Australia's most sustainable supermarket.

- Next phase will be to finalise and complete objectives. Visits to producer champions will be made to discuss and report on improvements to carcass performance, compliance and initiatives implemented on farm that assisted in making these improvements.
- The next stage will see the roll out of the feedback app across the entire beef supply chain, whilst the lamb eNVD will be tested and piloted in Tasmania with a small group of Graze suppliers.
- Piloting the feedback tool will continue to be the focus over the next phase.

Moving forward, the role will continue to focus on further development of the supplier App, adoption of improved management practises on farm to meet Coles beef requirements, enhanced use of MSA data whilst also working towards Coles sustainability goals for beef.