

# Final report

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## Carbon EDGE training package and pilot delivery

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## Abstract

This project relates to the development of Meat & Livestock Australia's Carbon EDGE training package, which will form a pillar of MLA's EDGENetwork® (EDGE) program. Carbon EDGE will be a key training package for Australian red meat producers and industry under the Carbon Neutral 2030 (CN30) initiative.

The training package is intended to address barriers to adoption and develop producers' foundational capability to create a carbon account and formulate a customised plan to address emissions and production benefits at an enterprise level. Carbon EDGE will be delivered in the context of whole-farm business planning and will tie into other EDGE packages, with a focus on increasing participants' business sustainability, profitability and/or productivity.

Carbon EDGE materials, including deliverer and participant manuals, exercises, supplementary materials and activities, were developed by Pinion Advisory and Environmental Accounting Services (EAS), with design input from Amour Creative and Hot Tin Roof Communications, and strategic guidance from the project steering committee and working group. Pilot group workshops were delivered in six locations with feedback from the pilots being comprehensive, constructive and generally positive. Feedback from the pilot phase was used to refine the program and inform the second cohort of Carbon EDGE deliverers that were trained in May 2024. The Carbon EDGE training package is now complete, deliverers are trained, and the red meat industry has a program that is ready for roll out across Australia, to inform and education them of their options and opportunities to participate in the objective of CN30.

## Executive summary

### Background

The Carbon EDGE training package was developed to support the Australian red meat industry's commitment to achieve carbon neutrality by 2030 (CN30) and address barriers such as confusion around carbon concepts and a lack of tailored training resources. Carbon EDGE was designed to empower producers with essential knowledge and skills to identify carbon reduction and sequestration strategies effectively.

The target demographic for Carbon EDGE comprises sheep, cattle and goat producers and advisors across Australia, with content tailored to meet the specific needs of northern, rangelands, and southern production systems.

The training package will enhance participants' knowledge and skills in carbon management, enabling them to integrate these practices into their business operations via an action plan, achieving profitability alongside environmental sustainability.

### Objectives

- **Development of Carbon EDGE training package:** Achieved with high satisfaction - participants rated their satisfaction at 8.56/10, and knowledge improvement was marked from a baseline, increasing by 7.61%.
- **Engagement in pilot workshops:** Exceeded the initial target of engaging 30 producers, by engaging 85 producers and 22 industry professionals from over 80 businesses in six pilot workshops across diverse Australian regions.
- **Deliverer training and accreditation:** Successfully trained 13 Carbon EDGE deliverers, who are equipped to disseminate the training across different regions, aligning with the delivery standards set by Meat & Livestock Australia (MLA).

### Methodology

The project was structured through several phases, starting with the establishment of project management protocols, risk analysis, communication plan and terms of reference. Regular project management meetings were held, and detailed task planning facilitated through SmartSheet.

The development of the training resources and workshop design was guided by a Working Group representing the industry across diverse regions. The collaborative efforts with the Carbon EDGE Working Group assisted in tailoring the training content to industry needs. Iterative feedback loops from pilot workshops aided continuous refinement to the training materials and workshop design.

Deliverer training via 'train the trainer' sessions ensured the delivery of the package would be consistent and effective across different regional contexts.

### Results/key findings

- **Comprehensive training package:** Successful development and piloting of the Carbon EDGE training package, with workshop materials including manuals, workbooks slide decks and deliverer guides.
- **High engagement and satisfaction:** Engagement of 85 producers, surpassing the target by nearly 300%. The participants reported high satisfaction and demonstrable improvements in their understanding of carbon management strategies.

**Benefits to industry**

Carbon EDGE has provided the red meat industry with a targeted educational tool aligned to the CN30 commitment. The training facilitates a better understanding of carbon reduction strategies and their integration into livestock business models, which can lead to improved environmental outcomes and business profitability. The project also supports the red meat industry's CN30 target by equipping producers with the skills necessary to contribute to this commitment effectively.

**Future research and recommendations**

Continued refinement and updating of the Carbon EDGE materials are recommended to keep pace with anticipated advancements in carbon farming practices and technologies. It is recommended that subsequent iterations of the project include advanced modules to cover emerging technologies and strategies in carbon management. Additionally, establishing a peer support network for trained producers could enhance the implementation success of the strategies learned during workshops, thereby sustaining momentum towards the CN30 commitment.

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## 1. Background

### 1.1 The red meat industry's CN30 target

The development of the Carbon EDGE training package and pilot delivery is aligned with the red meat industry's CN30 target.

Achieving carbon neutrality by 2030 will only be realised with the adoption of emissions avoidance and carbon storage practices and technologies. Although there is wide interest in these practices and technologies, a lack of key knowledge and skills across industry is posing a barrier to adoption.

### 1.2 Addressing barriers to adoption of the red meat industry's CN30 target

Carbon EDGE was developed in response to barriers to adoption in the CN30 area as described by producers and the industry. These barriers included:

- confusion, or a lack of understanding around the concept of 'carbon' and emissions reduction/sequestration strategies that are suitable for a producer's specific operations, region and/or system
- a lack of support, training or resources to formulate a clear plan that aligns carbon reduction/sequestration with whole of business productivity and profit
- slow uptake of carbon accounting, which is essential for gathering baseline data to identify strategies and measure progress
- a limited number of advisors who can adequately provide the support needed to enable producers to plan and undertake key actions to achieve carbon neutrality.

### 1.3 Target audience for Carbon EDGE

Carbon EDGE has been developed to address knowledge and skills gaps by providing producers (and advisors) across Australia with the foundational knowledge and skills required to create a carbon account and formulate a customised plan to address emissions and production benefits at an enterprise level.

To address regional differences, the package has been developed, piloted and customised for northern, rangelands and southern production systems based on management practices and applicability of CN30 technologies across Australia.

### 1.4 Results and how Carbon EDGE will be used

Carbon EDGE has been developed, and piloting of the package delivered, in the context of whole-farm business planning and is aligned to other EDGENetwork® packages, with a focus on increasing participants' business sustainability, profitability and/or productivity.

The two-day workshop can be customised for northern, rangelands and southern production systems via incorporation of relevant management practices and applicability of CN30 technologies across Australia.

Thirteen deliverers from across Australia have been trained and the package has been launched. Carbon EDGE will now be rolled out as part of the EDGENetwork®. This education piece will support long term practice change (Fig. 1) and contribute to uptake of and commitment to the red meat industry's CN30 target.





Figure 1: Carbon EDGE as part of the EDGENetwork® is a short-term training package and will contribute on the pathway to long term practice change.

## 2. Objectives

The objectives of the Carbon EDGE package development and pilot delivery	Progress against the objective:
1. Develop a Carbon EDGE training package, endorsed by the project working group, that receives an average satisfaction score from pilot participants of 7/10 or higher and demonstrates an increase in participant knowledge and skills based on the defined learning outcomes.	Achieved
2. Engage and collect feedback from a minimum of 30 producers, across 20 businesses engaged across five pilot Carbon EDGE workshops, at least two of which are held in southern Australia, two in northern Australia and one in a rangelands region.	Achieved
3. Provide Carbon EDGE deliverer training to at least ten advisors, with alignment to the accreditation package developed by MLA, with deliverers able to deliver in different regions of Australia	Achieved

As stated above and summarised in the Carbon EDGE monitoring and evaluation report (Appendix 1), these objectives were met and/or exceeded.

1. Participants demonstrated overall satisfaction in the workshop delivery and content of 8.56/10; Participants demonstrated an improvement in their knowledge and understanding as a result of attending the workshop of +7.61%.
2. The pilot workshops engaged a total of 85 producers and 22 other professionals across 80+ businesses. Workshops were held in Mackay, QLD; Benalla, VIC; Roma, QLD; Narrabri, NSW; Coonawarra, SA; Alice Springs, NT.
3. Two Carbon EDGE train the trainer sessions were held with six deliverers in cohort one and seven in cohort two. The deliverer program was developed by MLA and the train the trainer program aligned to ensure deliverers meet these requirements.

Additional to these objectives, Carbon EDGE adheres to the minimum standards for all EDGENetwork® products. These are described in Table 2.

**Table 2: Analysis of Carbon EDGE against EDGENetwork® standards**

	EDGE standards	Comment	Evidence
1	Having clearly defined learning outcomes, developed in consultation with MLA	<p>Learning outcomes:</p> <ul style="list-style-type: none"> <li>Improving carbon literacy and understanding of carbon farming, carbon sequestration and GHG emissions.</li> <li>Level of confidence around the carbon accounts for their business</li> <li>Participants have identified short and long-term actions to reduce their emissions and increase the sequestration occurring within their farming business.</li> <li>Tools and knowledge to critically assess actions which fit within their business.</li> </ul>	Appendix 2: Carbon EDGE producer workshop scope and outline
2	Ensuring that all activities are targeted at achieving learning outcomes	<p>A number of activities have been developed and incorporated into the Carbon EDGE training package. The activities have been aligned to the learning outcomes via:</p> <p>Know: Identify; name; recognise; define; interpret</p> <p>Do: Collect; rearrange; measure</p> <p>Do: Use; employ; organise</p> <p>Think: Evaluate; challenge; choose</p>	<p>Appendix 2: Carbon EDGE producer workshop scope and outline</p> <p>Appendix 3: Runsheet for producer workshops_13.05.24</p>
3	Ensuring the activities cater for the individual needs and learning styles of participants	<p>Presentation of information in the workshop is a mix of visual, auditory, reading, written reflection and activity-based learning. Activities incorporate a mix of individual reflection, small group work, teamwork, presentation and role play. This mix allows for integration of a range of learning styles. Facilitation techniques such as the 'Parking Lot', group reflection and daily recaps also assist in capturing 'reflective thinkers' and control dominant participants.</p>	<p>Appendix 3: Runsheet for producer workshops_13.05.24</p> <p>Attachment 08: Carbon EDGE activities and action planning*</p>
4	Including an activity(ies) that helps participants identify the importance of the	<p>Action planning is a continual activity throughout the workshop. Participants are asked to regularly reflect and complete activities that link the content with their business and action plan.</p>	Attachment 03: Producer workbook*

	learning outcome in relation to their whole business and business plan		
5	Facilitates the completion of action learning cycles by participants in relation to the identified learning outcomes	Incorporation of pre work assists in allowing participants to move to critical reflection and decision-making refinement of their carbon account and action plan.	Attachment 04: Runsheet*
6	Ensuring that the product leaves participants with a clear plan to act in relation to the identified learning outcomes	Action plan is a key outcome of the workshop.	Attachment 03: Producer workbook*
7	Identifying a decision-making tool or process, if appropriate, through which participants can evaluate the options presented to them as part of the activities.	Two decision making tools are presented in Carbon EDGE, the decision wizard, and also a decision-making matrix.	Attachment 08: Carbon EDGE activities and action planning*
8	Enabling participants to identify and develop “best practice” for their individual business.	Emissions intensity benchmarks assist in helping participants determine best practice for their individual business.	Attachment 03: Producer workbook*
9	Links to relevant information and advisors who can assist in developing “best practice”.	The workshop materials have “Further Information” sections. There is also a take home USB with relevant regional information.	Attachment 02: Participant manual*
10	Outline of all resource requirements.	The runsheet lists the resource requirements for deliverers and where they can tailor regional information.	Appendix 3: Runsheet for producer workshops_13.05.24
11	Outline of all competencies required of deliverers.	The train the trainer sessions outlined the requirements for Carbon EDGE deliverers. MLA has also formalised a process for accreditation of deliverers which includes attendance at the training sessions.	
12	Acknowledgement of all intellectual property and observe copyright laws.	All sources are attributed in the materials for Carbon EDGE. Major sources were contacted, permission sought to use material and feedback requested e.g. Cam Nicolson for Decision Wizard.	Attachment 01: Deliverer manual* Attachment 02: Participant manual* Attachment 05: Slide deck*

\*Carbon EDGE materials are available via EDGENetwork® Resources SharePoint site for approved deliverers.

EDGENetwork is a commercial program and materials are made available to those who attend a workshop. Should you wish to access materials, please contact MLA.

## 3. Methodology

### 3.1 Project establishment

#### 3.1.1 Contract signing

The contract for L.ADP.2032 was signed in August 2022. Pinion Advisory were engaged by MLA to develop the producer manual, run pilot workshops and conduct facilitator training for the Carbon EDGE package development and pilot delivery project.

The development of the technical content for the Carbon EDGE deliverer manual was undertaken by Environmental Accounting Services (EAS) to inform the development of the extension materials. The project was overseen by the Steering Committee and input into the materials and workshop design sought from the Working Group. Roles between all parties are outlined in Figure 2.

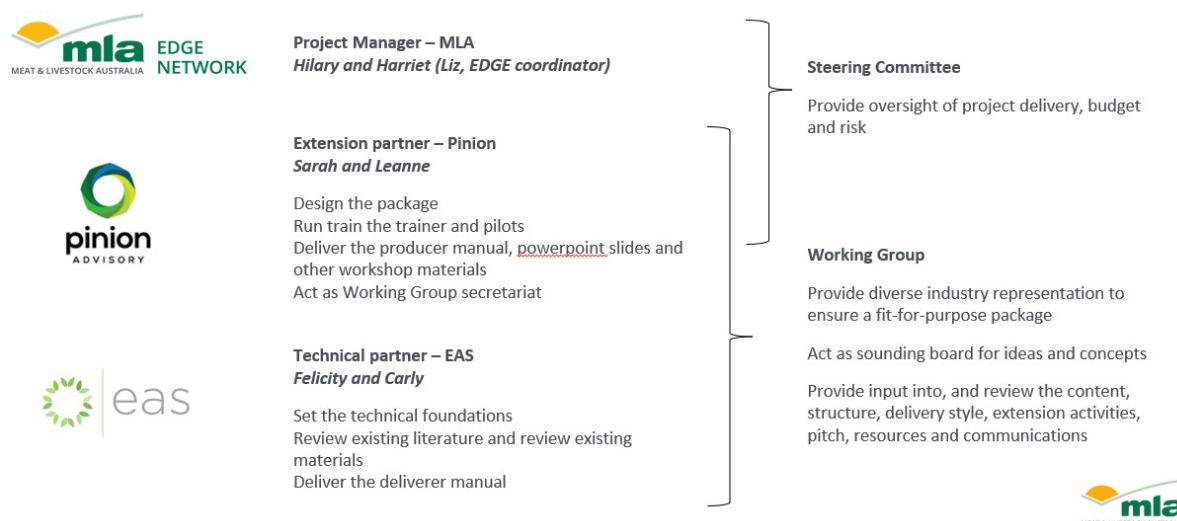


Figure 2: Project role clarification

#### 3.1.2 Establish project management processes

##### Inception meeting

An inception meeting was held in August 2022, with attendees from MLA and Pinion Advisory staff. Minutes from this meeting are in Appendix 4.

##### Detailed project workplan

A project workplan was established with the online tool SmartSheet. This workplan was accessible to all the project management group.

##### Project risk assessment

A project risk assessment was undertaken in 2022, with a risk analysis update conducted mid-project (Appendix 5). This update was in response to seasonal conditions, market awareness and price point being factors in slow registrations for some pilot workshops.

### **Project monitoring and evaluation plan**

A monitoring and evaluation plan for the project was established and reviewed mid project (Appendix 6). A final monitoring and evaluation report has been prepared (Appendix 1).

### **Project communications plan**

A communications plan was created in June 2023 and updated in December 2023 (Appendix 7). The communications plan included audience, message, channel, tactics and implementation matrix.

### **Steering group establishment**

The first steering committee meeting was held in August 2022 and over time became more strategic.

Separate to the steering group meetings, regular project management meetings between MLA and Pinion Advisory were held for operational tasks and project tracking. These varied from weekly to fortnightly.

## **4. Training package development**

### **4.1 Carbon EDGE Working Group**

A project working group was established to provide guidance on the content and delivery approach of Carbon EDGE and ensure that the package addressed industry needs. Terms of reference (ToR) were developed, along with selection criteria for working group members. Membership included producers (north, south and rangelands), advisors with experience in carbon and extension delivery (north and south), technical experts and an industry representative with expertise in carbon.

A shortlist of potential candidates was produced, and these people were emailed an expression of interest (Eoi) and draft working group ToR. The finalised candidates were then engaged in contracts by Pinion Advisory.

#### **Working Group EOI Process**

The Eoi process for recruiting members for the Carbon EDGE working group targeted north, south and rangeland producer representatives, deliverers, and technical experts. Once Eois were received, a selection process was implemented by MLA and Pinon Advisory. Confirmation of working group members occurred in September 2022.

#### **Working group members**

The working group members selected provided representation from key stakeholder groups and geographies. This included producers, service providers/advisors, technical experts, industry representatives and MLA representatives.

#### **Summary of Carbon EDGE working group meetings and outcomes**

Table 3 below provides an overview of each working group meeting, main agenda topics, comments and outcomes. Also find associated appendices for each working group meeting.

**Table 3: Overview of Carbon EDGE working group meetings.**

Meeting #	Date	Main agenda topics	Comments/Outcomes
1	30 September 2022	Overview of CN30. Roles of all parties. Terms of reference for working group. Agreement on learning outcomes. Process for input and feedback. Meeting plan.	Representatives from EAS attending. Terms of reference endorsed.  Appendix 8 WG Mtg 01
2	3 February 2023	Summary of collated feedback. Group workshop sessions. Reflection. Next steps.	Consolidate working group feedback on the draft deliverer's manual. Review timeline for Carbon EDGE development 2023/24.  Appendix 9 WG Mtg 02
3	24 March 2023	Introduction to the producer workshop program. Feedback on the producer workshop program. Learning activity challenge. Next steps.	Consensus on the scope and topic structure for workshops.  Appendix 10 WG Mtg 03
4	26 May 2023	Update and recap on workshop program development. Workshop "how well the action planning template will support producers to identify actions; what learning activities can be embedded?"	Impressions on the action planning template and workshopped feedback.  Appendix 11 WG Mtg 04
5	9 April 2024	Key metric overview of the pilots. Overview of recommendations. Next steps for Carbon EDGE.	Report on the pilot phase of the project. Review key areas of feedback. Explore major recommendations. Outline Carbon EDGE next steps and launch.  Appendix 12 WG Mtg 05

## 4.2 Deliverer training

Two rounds of train the trainer activities were delivered as part of the project.

### Round one

The first group of Carbon EDGE deliverers (cohort one) participated in training prior to pilot delivery via two online sessions.

#### Session 1

Aim: Introduce Carbon EDGE and deliverer resources (2hr) via teams

Outcome: deliverers are confident in the subject material and understand the outcomes of Carbon EDGE.

## Session 2

Aim: Prepare deliverers to deliver (2hr) via teams

Outcome: deliverers are confident in the Carbon EDGE resources (producer manual, workbook and PPT) and delivering to producers.

## Round two

The second cohort of Carbon EDGE deliverers participated in training prior to the launch of Carbon EDGE. This session was held face-to-face in Sydney at the MLA offices and was attended by seven deliverers.

The agenda for this full day session included an overview of module content, resources, practical activities, action planning, unpacking difficult topics/questions and M&E expectations. A summary of cohort two train the trainer evaluation is included in Appendix 13.

## 4.3 Workshop piloting

Carbon EDGE pilots were delivered in six locations across Australia. Five were delivered by Pinion Advisory as part of this project contract, and the sixth by ConnectAg due to a separate opportunity that emerged. The locations were selected by the project management team, with deliverers and a national EOI call to producers assisting in selection.

Two pilots were rescheduled and moved to new locations following low registrations resulting from impacts of seasonal conditions. Table 4 provides an overview of pilot locations and dates, including the rescheduled pilots. Price point was also considered an issue without a known value proposition for attendance. The MDC subsidies for producers assisted in ensuring that the pilots were successful.

**Table 4: Carbon EDGE pilot locations and dates.**

Pilot location	Date	Comment
Mackay, QLD	9 – 10 November 2023	
Benalla, VIC	5-6 December 2023	
Bunbury, WA	19 – 20 October	Rescheduled and moved to Coonawarra
Hay, NSW	31 October – 1 November 2023	Rescheduled and moved to Narrabri
Roma, QLD	15-16 February 2024	
Narrabri, NSW	20-21 February 2024	
Coonawarra, SA	27-28 February 2024	
Alice Springs, NT	18-19 March 2024	Rescheduled from November 2023 due to bushfires



The pilot workshops followed similar structure, with deliverers encouraged to present localised information and adapt the agenda as they saw fit.

#### **4.4 Finalisation of resources and final report**

Following the conclusion of the workshop pilots, evaluation data and feedback was collated. This was circulated to the Working Group as recommendations for comment. At the final Working Group meeting, online workshop sessions were used to provide further clarity on outstanding issues and areas of feedback unresolved. The project management team then led the finalisation of recommendations and the rework of the Carbon EDGE materials as appropriate.

All final workshop materials were delivered to MLA in May 2024.

### **5. Results**

The Carbon EDGE training package was developed, piloted, refined and launched. The project achieved all success indicators, exceeded expectations in producer attendance and deliverers trained, and was well received by producers and industry.

#### **5.1 Workshop materials and training package**

The final workshop materials are managed by MLA. These include:

- 01 Deliverer Manual
- 02 Participant Manual
- 03 Participant Workbook
- 04 Carbon EDGE Runsheet
- 05 Carbon EDGE Slide Deck
- 06 Carbon EDGE Evaluation Sheet
- 07 Carbon EDGE KASA
- 08 Carbon EDGE Activities and Action Planning

#### **5.2 Thirteen deliverers trained**

Through the pilot program, six deliverers (cohort one) participated in the train the trainer and have also delivered across at least two Carbon EDGE workshops. A further seven deliverers (cohort two) participated in the second round of train the trainer activities in May 2024. In total, 13 deliverers have been trained (three more than expected), however not all have completed their practical co-delivery training. This will occur once Carbon EDGE events are rolled out into the future.

#### **5.3 Eighty-five producers engaged as pilot workshop participants**

A success indicator for the project was a minimum of thirty producers engaged through the pilot program. Table 5 shows that this minimum was exceeded, with the number of producer participants and other participants that attended each workshop listed.

**Table 5: Summary of pilot workshop participants**

Pilot location	Date	Producers	Others
Mackay, QLD	9 – 10 <sup>th</sup> November 2023	10	0
Benalla, VIC	5-6 December 2023	15	5
Roma, QLD	15-16 February 2024	20	1
Narrabri, NSW	20-21 February 2024	16	2
Coonawarra, SA	27-28 February 2024	15	4
Alice Springs, NT	18-19 March 2024	9	10
<b>Totals</b>		<b>85</b>	<b>22</b>

This data shows that the goal for the engagement of producers was exceeded by almost 300%.

## **5.4 Learning objectives, satisfaction and expectations met**

A detailed description of the project objectives, indicators and results is described in the Carbon EDGE monitoring and evaluation report (Appendix 1). A summary is provided below.

### **5.4.1 Participants demonstrate improved knowledge or understanding**

Pilot workshop participants were asked to answer questions relating to their knowledge, attitudes, skills and aspirations regarding carbon farming before, and after they completed the pilot workshops. The average percentage change in KASA across all workshops was 7.6%.

The initial knowledge, as evidenced by the pre-course answers, was quite high, and the course led to an improvement in the level of correct answers. It was also recommended that the difficulty of the questions used to evaluate KASA be changed and increased in difficulty, this was actioned in the revision of workshop materials.

### **5.4.2 High satisfaction rating**

Participants demonstrated overall average satisfaction in the workshop delivery and content as 8.58/10. Overall, ratings were high in all workshops. The lowest ratings of 5 were for two participants in the Roma workshop. All workshops except for Mackay had participants that rated the workshops 10/10 for satisfaction.

### **5.4.3 Training resources valuable for the target audience (advisors and producers).**

Pilot participants rated the training resources as highly valuable, on average 8.8 out of 10.

Overall, the quality of materials was rated highly by the participants. Based on the feedback provided in the additional comments, several common themes emerged:

## **Digital resources**

Some participants expressed a preference for digital copies to facilitate easier access and organisation of resources. To protect MLA's intellectual property manuals are not provided electronically, however, it was recommended and actioned that the action plan template be supplied to participants electronically so it can be filled out during the workshop.

The cohort two trainers' average rating for the usefulness of the workshop resources was 7.4 out of 10. It is noted that at the time of surveying, they had not been provided the full suite of resources, as each needed to have an executed EDGE deliverers agreement with MLA before they were able to receive the full materials.

## **Improvements in workshop materials**

Overall, participants appreciated the comprehensive nature of the provided materials. Specific improvements such as larger spaces for writing answers in workbooks, clearer organisation of content, and the inclusion of slide builds/animations for better visibility during presentations were suggested. Further, producer case studies were also suggested.

Recommendations which were actioned included:

- improve design of workbooks for writing space
- review content organisation
- incorporate slide builds and animations in complex slides
- deliverers to incorporate case studies relevant to the region of Australia in which they are presenting, and provision of regionally specific emissions calculation examples.

### **5.4.4 Meeting the needs and expectations of the target audience**

Participants were asked to rate how well the pilot workshops met their expectations. The results indicate that their expectations were well met, on average 8.55/10.

Themes emerging from feedback in this area included:

#### **Exceeded expectations**

Many participants expressed that the workshop exceeded their expectations. They found it more informative, engaging, and interactive than they initially anticipated.

#### **Professional presenters**

Participants appreciated the professionalism, friendliness, and helpfulness of the presenters. This contributed positively to their overall experience of the workshop.

#### **Comprehensive content**

The workshop was praised for its comprehensive content, providing a good balance of interaction, activities, and information. Participants welcomed the opportunity for discussion.

#### **Improvement in knowledge and understanding**

Attendees reported an improvement in their knowledge and understanding of carbon-related topics after completing the workshop. Some mentioned feeling more optimistic about implementing changes in their businesses to lower methane output.

## Engagement and interactivity

Despite heavy content, participants remained engaged throughout the workshop, which indicates the effectiveness of the interactive elements incorporated into the package.

## Cohort two trainers

Cohort two trainers rated the train the trainer 9/10 for meeting their expectations.

## Recommendations

Recommendations included to keep course material updated with reference to the industry approved carbon calculator(s). Also to update course content on carbon farming projects, policy drivers, emissions calculations and sequestration methods.

### 5.4.5 Effective workshop delivery

There were several questions on the post-workshop feedback form that related to the effectiveness of workshop delivery. Collated averages in Table 6 below.

The feedback was largely positive, with several key areas contributing to the high ratings:

- knowledgeable presenters
- good engagement and elaboration
- balance of learning and interactions
- well managed time allocation
- inclusivity and activities
- appreciation for content depth.

**Table 6: Effectiveness of workshop delivery.**

Evaluation questions	Collated averages across all pilot workshops
How would you rate the clarity of the presenter(s) in explaining concepts and ideas?	8.87/10
How would you rate the overall organisation and structure of the workshop?	8.60/10
How would you rate the workshop in encouraging active participation and engagement?	9.13/10
How would you rate the duration of the workshop, where 1 is too short and 10 is too long?	6.28/10
How effective was the workshop in helping you identify actions that apply to your business?	8.30/10

A more extensive outline of the feedback is presented in Appendix 1.

A few things were raised as areas for improvement. These were collated and were presented to the working group in the Carbon EDGE recommendations (Appendix 14).

## 5.5 Attitudinal change

As part of the pre and post module quiz, participants were asked to rate their confidence about certain aspects of the modules out of five. The results from the attitudinal quiz for participants is shown below in Table 7.

**Table 7: Changes in attitude / confidence – pre and post module.**

	Mackay		Benalla		Roma		Narrabri		Coonawarra		Alice Springs	
Q	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Average	2.5	3.3	2.5	3.3	1.7	3.0	1.9	3.3	2.42	3.55	2.2	3.55
% Change		+0.8		+0.8		+1.3		+1.4		+1.1		+1.4

Table 7 shows that participants in all workshops improved their attitude / confidence in carbon farming and greenhouse gas related topics by between 0.8 and 1.4 points out of 5. On average, participants left the workshops with confidence ratings for the questions above of 3/5 or higher.

## 5.6 Price point

The feedback forms asked participants the price point they thought was fair for the Carbon EDGE workshop. The ranges were <\$750, \$750-1,000 and >\$1,000.

The results can be seen below in Table 8.

**Table 8: Recommended price points from participants.**

	<\$750	\$750-\$1,000	>\$1,000
Number of participants	63	28	2
Proportion (%)	67	30	3

Most participants (67%) value the course at less than \$750, 30% value it between \$750 - \$1,000 and two participants (3%) valued the course at greater than \$1,000. The normal price point for a two-day MLA EDGE course is \$1,750 per person.

## 5.7 Remaining challenges

Three key challenges have been identified for successful future roll out and uptake of Carbon EDGE.

### 5.7.1 Value proposition

Government-led initiatives and private providers are delivering carbon farming advice and skills transfer for free or heavily discounted pricing. This has created competition in the space and also difficult for Carbon EDGE to establish its own unique value proposition.

The provision of subsidies for the Carbon EDGE pilot workshops assisted in gaining good attendance at the workshops. Initiative such as this may be required if producer uptake at commercial rates are low.

### **5.7.2 Updating**

Consistent feedback from during the project was to ensure that course materials are regularly updated to stay best practice and relevant, for example industry approved carbon calculator(s). Updating content on carbon farming projects, policy drivers, emissions calculations and sequestration methods is also important. Keeping course content current will be a continual challenge for Carbon EDGE.

### **5.7.3 Follow up and support**

Several participants expressed interest in follow-up workshops or support sessions to help them implement their action plans and address any challenges that may arise.

Deliverers may offer post-workshop follow up on action plan development if it fits with their business or refer to other providers. However, there remains an opportunity for MLA to provide guidance and support to Carbon EDGE graduates in a more practical setting.

## **6. Conclusion**

Carbon EDGE has been well received by the red meat industry. While there remain some challenges in the launch and upkeep of this training package, positive feedback from pilot participants indicates that Carbon EDGE is addressing a knowledge gap in the industry.

### **6.1 Key findings**

The project has delivered impact and achieved the following:

- Developed a training package by red meat producers, for red meat producers who are looking to build their understanding of carbon into a planning and action phase, integrating practices and technologies into their business that will benefit their bottom line and the environment.
- Producers attending the pilot program have improved their understanding of the opportunities for emissions reduction and carbon storage activities in a livestock grazing business.
- Thirteen advisors have been trained as deliverers and will be accredited once they complete their practical satisfactorily.
- Useful and relevant information and tools for trainers and producers to use in this space were identified.
- The program has built a strong education pathway for producers to engage with the red meat industry's CN30 target.

### **6.2 Benefits to industry**

Carbon EDGE has supported MLA by contributing to several outcomes as outlined in the Strategic Plan 2025, including:

- MLA investments include targeted extension and adoption pathways at inception and are relevant to red meat producers across all regions.
- Producers have the capability to adopt R&D outcomes which directly improve their productivity and profitability.
- Producers understand the importance of meeting community expectations around environment and animal welfare and respond through practice change.

Specifically, the Carbon EDGE training package offers several key benefits to the red meat industry, as summarised below.

### **6.2.1 Enhanced carbon literacy and skills development**

Carbon EDGE has provided the red meat industry with a targeted educational tool to enhance carbon literacy and confidence of producers to take action towards the CN30 commitment. The training facilitates a better understanding of carbon reduction and sequestration strategies, which can lead to improved environmental outcomes and business profitability. The project also supports the industry's CN30 target by equipping producers with the skills necessary to contribute to this commitment effectively, and for advisors across the industry to gain a deeper understanding and practical knowledge of carbon management strategies, which are crucial for achieving carbon neutrality.

### **6.2.2 Alignment with CN30 commitment**

Carbon EDGE aligns industry practices with industry aspiration and global sustainability goals. As an important educational support piece in the industry's commitment to CN30, Carbon EDGE further signals that the industry is committed to proactively addressing emissions and taking action towards the long-term productivity of the industry. Further enhancing brand value and consumer trust.

### **6.2.3 Operational efficiencies**

Improved understanding of emissions reduction strategies can lead to more efficient use of resources, reducing costs and environmental impact. Carbon EDGE encourages businesses to set measurable targets for reduction in carbon emissions and implement emissions reduction and sequestration strategies via action planning.

### **6.2.4 Increased profitability**

By integrating carbon reduction strategies with business operations, producers can potentially reduce inputs, unlock new revenue streams such as carbon credits, and improve overall business profitability. As outlined in the MLA Adoption Outcomes report, EDGE has financial benefits for participating producers. This was estimated at \$468.4 million\* between 2015–2022. Carbon EDGE would be expected to contribute to these ongoing financial benefits in adoption of practice change leading to increased production and profitability. "On average, and depending on the area of practice change, northern beef producers participating in an EDGE workshop can expect an additional net benefit of between \$8–\$89/km<sup>2</sup> annually. On average, southern producers participating in an EDGE workshop can expect an additional net benefit of \$6.33/ha annually." (MLA Adoption Outcomes Report 2022-23).

### **6.2.5 Comprehensive and Adaptable Learning**

Carbon EDGE has application and connection to many existing EDGE training packages. As part of the overall EDGENetwork® Carbon EDGE builds another layer to existing training packages and contributes to the overall offering of EDGE. Relevance and applicability are enhanced as producers can build their knowledge through relevant training packages offered through the EDGENetwork®. With regular updating, Carbon EDGE can incorporate emerging research to keep the training relevant and effective.

## **7. Future research and recommendations**

### **7.1 Regular updates to remain relevant in a fast-moving space**

Acknowledging the difficulty in keeping materials current, even throughout the period of this project, it is recommended that there is continued refinement and updating of the Carbon EDGE materials. There will continue to be significant advancements in carbon farming practices, climate adaptation and technologies and these need to be integrated for Carbon EDGE to remain relevant to producers.

Capturing emerging technologies or management strategies could be achieved via supplement information and/or additional modules.

### **7.2 Supporting action plan implementation and long-term practice change**

For producers:

To support producers to implement the action plans that they develop via participation in Carbon EDGE, it is recommended that a peer supported learning network is established. This could be regionally based, in the form of small group facilitated paddock-based learning groups. This recommendation would enhance the implementation and success of the strategies learned during workshops, as producers will have a supported pathway to develop and practice the skills and knowledge acquired through Carbon EDGE. Further, this would sustain momentum towards emissions reduction and the CN30 commitment.

For deliverers:

This project has the beginnings of a knowledge sharing platform. It would be a logical step to expand the resource sharing via SharePoint to a two-way platform where Carbon EDGE deliverers can share experiences, challenges, and successes related to Carbon EDGE. This could foster a community of practice and encourage continuous learning and improvement among existing and emerging cohorts.

### **7.3 Monitor and Evaluate**

Impact:

Follow up with participants to assess the impact of implemented carbon management strategies through Carbon EDGE on business performance and environmental outcomes. Use these insights to refine training and support programs, ensuring they remain effective and aligned with industry needs.



Participation:

With the relatively new offering of Carbon EDGE, there remains uncertainty of the uptake amongst producers. Monitoring participation at workshops and evaluating any external influences (i.e. seasonality, competition, price point) will assist in ensuring that Carbon EDGE remains relevant and accessible to producers.

## 8. References

MLA Adoption Outcomes Report 2022-23 <https://www.mla.com.au/globalassets/mla-corporate/research-and-development/documents/mla-adoption-outcomes-report-2223-web.pdf>

MLA Strategic Plan 2025 <https://www.mla.com.au/globalassets/mla-corporate/about-mla/documents/planning--reporting/Strategic-Plan-2025.pdf>

## **9. Appendix**

All appendices are attached and include:

Appendix 1: Carbon EDGE monitoring and evaluation report

Appendix 2: CEDGE\_producer wshop scope and outline

Appendix 3: Runsheet for producer workshops\_13.05.24

Appendix 4: Inception meeting 4Aug22

Appendix 5: Risk assessment update\_Oct23

Appendix 6: Carbon EDGE M&E plan REVIEW 230905

Appendix 7: Carbon EDGE comms plan\_V3

Appendix 8 WG Mtg 01

Appendix 9 WG Mtg 02

Appendix 10 WG Mtg 03

Appendix 11 WG Mtg 04

Appendix 12 WG Mtg 05

Appendix 13: Cohort two TtT evaluation summary

Appendix 14: Carbon EDGE recommendations Updated 110424