

Milestone report

Carbon In Action - Milestone 3

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Abstract

Carbon in Action aims to reuse the premise of the previously and conjointly developed MLA Carbon Calculator to design a “Quick Start” version allowing users to get a rapid estimate of their carbon emission as well as evaluate manageable reduction targets using two carbon sequestration techniques: Soil pasture and Trees. This project was developed in partnership with Pinion Advisory that will provide expert guidance and develop a learning module where the “Quick Start” carbon calculator version will be hosted.

The team operated in an agile manner with a focus on the objective outcomes, with meetings focusing on the planning and design necessary for the success of this project. Using modern design principles and agile tools, the team has addressed persistency of data, rainfall overwrite, new Excel lookup, and typo and text errors. All the milestone objectives have been completed therefore the project is moving to the next phase, i.e. Review and refinements. The project is now completed, and MLA will be in charge to maintain the tool.

Table of contents

Abstract	2
1. Milestone description	4
2. Project objectives.....	4
3. Methodology	4
4. Results (to-date)	4
5. Success in meeting the milestone	4
6. Overall progress of the project.....	4
7. Conclusions/recommendations.....	4
Appendix 1. Sprint review Week 6.....	5
Appendix 2. Summary of feedback for Quick Start Carbon Calculator.....	7

1. Milestone description

The third milestone was focused on refinements and bug fixes after the feedback received during testing from Pinion Advisory and the rest of the team.

- MLA – Product owner
- Servian – Platform development lead
- Pinion Advisory - Domain expert

2. Project objectives

The main objective of this milestone was to make changes on the platform following the refinements list provided by Pinion Advisory and MLA.

3. Methodology

The team operated in an agile manner with a focus on the objective outcomes, with meetings focusing on the planning and design necessary for the success of this project.

Using modern design principles and agile tools, the team has applied the following changes:

- Persistency of the data over the session
- Rainfall overwrite
- New Excel lookup
- Typo and text changes

4. Results (to-date)

The main outcomes of this milestone focused on two key elements:

- Week 6 recap
- Refinements list (see Appendix 2)
- New version of the tool accessible online

5. Success in meeting the milestone

All the milestone objectives have been completed therefore the project is moving to the next phase, i.e. Review and refinements.

6. Overall progress of the project

The project is now completed.

7. Conclusions/recommendations

MLA will now be in charge to maintain the tool.

Appendix 1: Sprint review Week 6



Carbon In Action Week 6

4th October 2023

MLA - Pinion Advisory - Cognizant Servian

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Agenda

- ◆ Project progress
- ◆ Timeline
- ◆ What's next

Project progress

Changes log:

1. Implemented changes from spreadsheet version EDL 20231002-E
2. Implemented the calculations for offsetting emissions by soil

Integration progress:

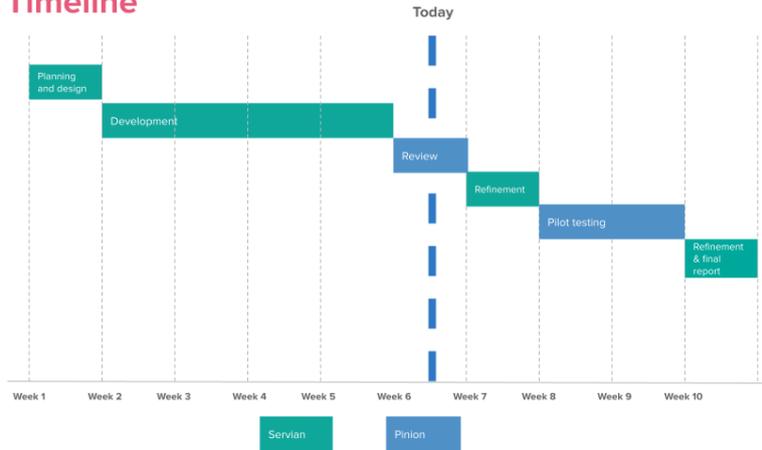
1. Integration in wordpress ongoing
2. Google tag manager ready to be link

Agenda

- ◆ Project progress
- ◆ Timeline
- ◆ What's next

3

Timeline



Agenda

- ◆ Project progress
- ◆ Timeline
- ◆ What's next

4

What's Next

- Pinion Advisory Review
- Refinements
- Pilot testing



Appendix 2: Summary of feedback for Quick Start Carbon Calculator

Table 1: People giving feedback

Who	Where from
Lauren Rowlands	Pinion – Livestock Consultant
Producer	Tasmania
Producer	Victoria
Processor	Marrawah

Table 2: Feedback received during a session conducted during the milestone

Feedback	What we have done about it or could do about it	Recommendation for changes before project conclusion
General Feedback		
The grey print and the font size was difficult to read for someone with poor eyesight (Gary Nankervis)	Don't think this can be changed, MLA standard	No action, Keely was going to make the font a bit darker and add some instructions on how to make the words bigger
Can it be used with an ipad? (Gary and Linda Nankervis)	Ask Norbert about that one	Consult with Servian: Can be used on an iPhone with some word stacking, but should be able to be used on an ipad using the browser, not as an application though. This might be worth developing, however. The current tool is touch compatible with the sliders.
When using the drop-down menus, it slides to the top (All)	This has been fixed	No action, already done
Unable to go in and out of the quick start carbon calculator without it resetting with none of the captured data, if go back to check again, all the data put in resets, this is very annoying (Iain Bruce, Jenny O'Sullivan, Emma Sambell)	Can Keely or Norbert adjust this one?	Consult Keely/Servian – Norbert and Mahendra said that this could be fixed, and they are putting it on the list. It is a persistency in session issue.

What about the carbon stored in houses, fenceposts, and yard, is that significant enough to account for? (Michael Blake)	Not sure how to deal with that.	Consult with Cam Nicolson on this, but no action on the tool, this is not in the scope of this project, only looks at emissions/sequestration, not stored carbon
<i>The script outside of the calculator</i>		
Updated to the script flow (SS)	A new draft script was suggested and Keely has updated that already.	No action, Keely already fixed
Background: Change “that” to “than” in the last sentence under “Sources and Sinks”	Make that change	Keely to change in Wordpress: Keely fixed
In the initial quiz – it asks about the knowledge of the quick start carbon calculator, but obvious is zero at the start so is a redundant question (Iain Bruce)	Remove that question from the initial quiz	Remove question (Keely) Keely changed the question to “What do you know about your current emissions?”
Conclusion: All simple and clear. (Michael Blake and Gary and Linda Nankervis)	No Change	No action
Conclusion: More call to action; maybe a link to some information on improving pasture growth or planting trees (Emma Sambell)	Add some links to the conclusion page.	Consult the working group about appropriate links, Keely was adding some things into the ‘other resources’ section
The calculator		
<i>Property information</i>		
There are many zones that are not covered by the “zone” section (Lauren Rowlands)	Need to update the spreadsheet to make the zone names more generic or broad	SS to rename zones to broaden geographic spread
Hard to locate the zones – used a close by one, but the average annual rainfall was different, would have preferred to put in own average rainfall (Linda Nankervis)	Make the zones broader, and allow overwriting of rainfall	Add rainfall overwriting (Servian) This can be done
The zones are too specific, and users would like to be able to override the estimated annual rainfall to their specific number. (Jenny O’Sullivan,	Broaden out the zones, and re-add the overwrite of the annual rainfall information.	Add rainfall overwriting (Servian) This can be done

Lauren Rowlands, Linda Nankervis, Emma Sambell)		
When there are multiple properties (in this case 3 owned over 2 states with one leased block), it was difficult to know what sort of data to put in, or no explanation of what to do	Put in some explanatory words that with multiple properties, add it all up and put in in as one enterprise. Probably difficult if different properties have different levels of rainfall.	In the information section on the property information page, add "if you have multiple and geographically diverse properties, it will be more accurate if you treat each property separately" This will be done
Livestock inventory		
Once the initial number is put in, it is tricky and fiddly to readjust the numbers, especially when the scale continues to change (or do the other numbers auto calculate) (Jenny O'Sullivan, Iain Bruce)	Others have found this to be ok, so leave as is.	No action
The auto calculation of the beef herd was an excellent tool, a little fiddly to adjust, but overall was great. For the more complex tool, very few farmers are on top of their numbers enough to be able to put them in the more complex calculators (Linda and Gary Nankervis)	Leave as is.	No action
In the "livestock" inventory page, if there are cattle entered, and the enterprise does not have sheep, then it is easy to press the "continue" button and go straight to the conclusions, and not progress through the rest of the calculator. If the "Continue" button at the bottom of this page was removed, the temptation to commit this error might be less. (All)	Maybe add some more instruction around this so that it does not happen because it is hard code that cannot change according to Keely	If the "continue" button cannot be moved, scale the window differently so the next button can be easily seen (Servian) Keely is going to change the length of the window, so that the next button is visible at all times

Difficult to adjust bulls from zero (Jenny O’Sullivan)	I seemed to be able to handle it ok, once the hand symbol is shown. Keep as is.	No action
Was difficult to get the numbers down to the last head (Linda and Gary Nankervis) but it probably didn’t matter anyway with the final numbers (Michael Blake)	Leave as it is.	No action
Vegetation and soils		
Vegetation: In the vegetation section, it needs some more explanation as to what tree species to choose. More explanation as to what “mixed species” are. Also, the hover box for dominant tree species says “choose the dominant pasture species”. (Jenny O’Sullivan)	Correct the hover box and maybe add some more explanation on this page about dominant species.	Correct the wording in the hover box under “dominant tree species” to “tree” instead of “pasture” (Servian). Add to the hover box “for native dominant trees, select “mixed species””. This can be done
Vegetation: Asked for a tool to calculate area of trees on the property, as this might not be instantly known (Jenny O’Sullivan, Emma Sambell)	Out of scope for this project, but in the data checklist at the front, remind people to have tree area on hand.	No action, area under trees is already on the data checklist SS to come up with some script in the “How to use the tool” section about what forest cover means, SB will send SS some information on this.
Vegetation: people may not be good at estimating their tree cover.	Add a hover box here, explaining that this includes all trees on the farm, not just vegetation of a certain tree density.	SS to double check with Cam Nicolson about the tree density needed to include it in tree area. SB to send SS some information on forest cover.
Vegetation: Not sure how to calculate the hectares of trees – and does the age of the trees matter? Is it forest, woodland, or does it cover the occasional tree? (Gary Nankervis)	Put in some more explanation of what the area of trees means in the hover box.	SS to double check with Cam Nicolson about the tree density needed to include it in tree area. SB to send SS some information about this.
Vegetation: A bit more explanation or consideration of the age of current plantings, and if they are sequestering carbon (Jenny O’Sullivan, Emma Sambell)	Out of scope for this project, but make an explanation around the assumptions for the vegetation.	In the hover box for “area under trees”, add “an estimate of tree age will be made by this calculator”. This can be done.

Vegetation: Need some more explanation about what is a good, standard and poor year in the hover box for pasture species (Emma Sambell, Gary Nankervis)	Add some more text in the hover box	To the hover box add “poor, standard and good years relate to pasture production, and are therefore linked to poor, standard and good rainfall” This can be done. Also, add some more information in the “how to use this tool” section
Vegetation: Some of the drop downs did not have a non-fertiliser option for pastures (Emma Sambell)	Review the pasture lists	SS to check the spelling and the scope of all the pasture species in the background spreadsheet, and to make sure there are non-fertiliser options SS to do
Soil: Didn’t have the exact soil type but added the one closest to the right one (Michael Blake).	The soil classifications are not exhaustive but are appropriate for a quick tool	No action
Results		
Nice easy clear result. Not discouraging (both farmers were already carbon neutral according to the tool though) (Michael Blake and Gary and Linda Nankervis)	Leave it as is.	No action
Explanation of what the numbers mean. Users would like to know what the numbers mean. Perhaps something about emissions intensity, and how does their farm compare to other farms. (Jenny O’Sullivan)	Probably out of scope for this project, but perhaps some extra commentary on the tonnes of CO ₂ -E that have been calculated. Add some “what does this mean” information at the point of calculation.	Draw more attention to the hover box on the total figure, “click here for more information” Cognizant will draw more attention to this. Check with MJ and JL about emissions intensity
Explanation of calendar year vs financial year (Jenny O’Sullivan)	Out of scope for this project	No action, more appropriate for the detailed calculator.
What percentage of your emissions would you like to inset? Starts the slider at 10%, should start at zero (Iain Bruce)	If it starts at zero, then it is pointless, because you will not be growing any more pasture or planting any trees, so the rest of the tool will be redundant, so keep as is.	No action

<p>Definition of inset – would have liked to learn more at this stage, particularly the definition of inseting, which is skimmed over when the information is at the start, which tends to be skipped over to get to the tool. (Jenny O’Sullivan)</p> <p>Would like better wording of the question “what percentage of your emissions would you like to inset?” (Emma Sambell)</p>	<p>Repeat the definition of inseting from “Background” to within the results page.</p>	<p>Add a hover box next to “What percentage of your emissions would you like to inset” with “Once you have entered your data for “sources” and “sinks”, there will be a net emissions estimate produced for your enterprise, simply “sources” minus “sinks”. The <i>Quick Start Carbon Calculator</i> will also estimate how much <i>extra</i> pasture growth (to enhance soil carbon) or how many more trees would need to be added to your enterprise to balance out “sources” with these “sinks”. Balancing sources of greenhouse gases with sinks of greenhouse gases within the farm is called <i>insetting</i>.” Cognizant can do this</p>
<p>Sequestration by grass or by soil – Add some more explanatory information here – what do these numbers mean? What value do these numbers give the producer? (Jenny O’Sullivan)</p>	<p>Add some explanatory notes to the results page around soil and tree sequestration.</p>	<p>Hover box on the soil result with “given the amount of net emissions from your farm, and the percentage inseting by soil you have chosen, the number here is the additional dry matter production of pasture in tonnes per hectare per year you would have to achieve per year to reach your inseting goal”</p> <p>Hover box on the trees result with “given the amount of net emissions from your farm, and the percentage inseting by trees you have chosen, the number here is how many extra hectares of trees you would need to plant to achieve your inseting goal” Cognizant can do this</p>

Would be good to be able to have the option to print, email or download the results to self (Jenny O’Sullivan)	Can this be added to the module?	Servian to action Check with MJ on this but Cognizant are able to provide a solution for this,
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Table 3: Possible changes to the names of the zones to be more inclusive without significantly changing the estimations

Regions Identified for Name Changes (Suggestions in Red)						
New South Wales	Queensland	South Australia	Tasmania	Victoria	Western Australia	North Territory
North West Slopes (North West NSW)	Far North (Cape York, Cooperative Management Area, Northern Gulf, Southern Gulf, Terrain NRM, North Queensland Dry Tropics)	Mount Gambier (South East)	North West (Elliott) (Cradle Coast)	South West (Hamilton) (Wimmera)	Kimberley (Rangelands)	Alice Springs region (Central Australia)
Northern Tablelands (Northern Tablelands)	North (Fitzroy Basin)	Lucindale (South East)	North Central (Cressy) (North)	South West lower (Lismore) (Glenelg Hopkins)	Pilbara (Rangelands)	Barkly region
Central Tablelands (Central Tablelands)	Mackay, Isaac and Whitsundays (Reef Catchments and North Queensland Dry Tropics)	Keith (South East)	Central Midlands (Ross) (Midlands and East Coast)	South West upper (Balmoral) (Wimmera)	Gascoyne (Rangelands)	Victoria River district
Central West Slopes (Central West)	Central (Desert Channels)	Adelaide Hills (Mt Barker) (Adelaide and Mount Lofty Ranges)	Southern Midlands (Jericho) (South)	South West upper (Edenhope) (Wimmera)	Mid West (Rangelands)	Katherine Top End)

South West Slopes (is that Riverina?)	Darling downs , south west (Queensland Murray Darling Basin and Condamine)	Fleurieu Peninsula (Inman Valley) (Adelaide and Mount Lofty Ranges)		South West upper (Ballarat) (North Central)	West Midlands (Irwin) (Northern Agricultural)	
North Coast (North Coast)	Burnett catchment (Burnett Mary)	Fleurieu Peninsula (Mt Barker) (Adelaide and Mount Lofty Ranges)		South West upper (Ararat) (North Central)	West Midlands (Moora, Three Springs) (Northern Agricultural)	
Mid North Coast and Lower Hunter (North Coast / Hunter)	South East (South East QLD)	Kangaroo Island (Parndana) (Kangaroo Island)		South West upper (Maryborough) (North Central)	Central (Northam) (Wheat Belt)	
	St George (Queensland Murray Darling Basin)	Eyre Peninsula (Koppio) (Eyre Peninsula)		North West (Boort) (North Central)	Southern High Rainfall (Busselton) (South West)	
	Roma (South West Queensland)			North East (Seymour) (Goulburn Broken)	Southern Cold Zone (Boyup Brook) (South West)	
	Goondiwindi (Queensland Murray Darling Basin)			North East (Bonnie Doon) (Goulburn Broken)	Southern Cold Zone (Katanning, Lake Grace, Narrogin)(South West and Wheat Belt)	
				West Gippsla	Southern Cold Zone	

				nd (Ellinba nk) (West Gippsla nd)	(Manjimup) (South West)	
				Central Gippsla nd (Maffra) (East Gippsla nd) East Gippsla nd (Bairns dale) (East Gippsla nd)	South Coast High Rainfall (Mt Barker) South Coast Sandplain (Wellstead) (South Coast) South Coast Sandplain (Esperance, Ravensthorpe) (South Coast)	