

CONNECTING
HEPBURN SHIRE'S
CIRCULAR ECONOMY

Circular Economy Stage 1 Project Report and Recommendations - Section 1

20 February 2023



Djaara Acknowledgement

This project took place on Djaara Country and the authors acknowledge the Dja Dja Wurrung People as the traditional owners and custodians of this land. We acknowledge and respect the ancient wisdom and stewardship of Djaara of the lands and waters for millenia. We acknowledge this Country was never ceded and pay respect to the Djaara Elders, past, present and future.

Hepburn Shire Council is on Dja Dja Wurrung Country.

Hepburn Shire Council acknowledges the Dja Dja Wurrung as the Traditional Owners of the lands and waters on which we live and work. On these lands, Djaara have performed age-old ceremonies of celebration, initiation and renewal. We recognise their resilience through dispossession and it is a testament to their continuing culture and tradition, which is strong and thriving. We also acknowledge the neighbouring Traditional Owners, the Wurundjeri to our South East and the Wadawurrung to our South West and pay our respect to all Aboriginal peoples, their culture, and lore. We acknowledge their living culture and the unique role they play in the life of this region.

Contents

1. Circular Economy Overview

1.1 Project overview

1.2 Introduction

1.3 Project outline

2. Circular Economy Readiness Snapshot

2.1 Circular Economy Readiness Survey

2.2 Circular Economy Readiness Snapshot

3. Local Circular Economy Case Studies

3.1 Overview

3.2 Case Studies

4. Circular Economy Business Workshop

4.1 Introduction to Circular Economy Presentation

4.2 Circular Economy for Business Workshop

5. Circular Economy Findings and Recommendations

Key findings and recommendations

Road Map and Next Steps

Recommendations. Circular Nodes - Pilot 1

Recommendations. Circular Nodes - Pilot 2

Recommendations. Circular Nodes - Pilot 3

Conclusion and acknowledgements.

6. Appendices

Project overview

This project investigated enablers for a Circular Economy in Hepburn Shire as a key component of expanding the Community-Council climate-action partnership Hepburn Z-NET, to include the integration of the Circular Economy from both a climate mitigation and adaptation perspective.

Hepburn Z-NET is currently focused on mitigation to reach zero-net emissions by 2030 but is expanding to cover adaptation and circular economy through 2022 and 2023.

The Circular Economy was identified as a key objective of the Council Plan 2021-2025 including the Municipal Public Health and Wellbeing Plan.

The Circular Economy is also a part of Hepburn Shire Council's Sustainable Hepburn strategy, where Circular Economy emerged strongly as a theme across multiple focus areas such as 'Low Waste Shire' and 'Beyond Zero Emissions Shire'.

The Circular Economy has broad community and business support in Hepburn Shire. **The Circular Economy has moved from ambition to action with the deadline now set for a full industry and sector wide transition by 2030.** ¹.

This foundation building Circular Economy Stage 1 project was hosted and part-funded by Hepburn Energy, part-funded and supported by Hepburn Shire, and delivered by Good human. The Phase 1, Discovery project represents part 1 of four parts outlined on the Hepburn Shire Circular Economy Roadmap.

This project took a practical and participatory approach to understanding, mapping and identifying Circular Economy quick wins with interested local businesses.

1. Source: <https://minister.dcceew.gov.au/plibersek/media-releases/new-expert-group-guide-australias-transition-circular-economy>

Project overview

The scope of this project was to identify potential pathways to Connect the Circular Economy in Hepburn Shire. It was decided to investigate Artisan Agriculture and Hospitality & Tourism as two strong, resource intensive, interrelated and complementary sectors. The longer term objective, is to holistically activate a circular economy in Hepburn Shire across all sectors.

The Circular Economy Readiness 'Snapshot' survey indicated a high score of 81% from the sample analysed. Further research needs to be undertaken on how to provide the means and infrastructure to activate the circular strategies. This will enable the more effective utilisation of local and imported resources, strengthen, expand and regenerate local supply chains & trade, rebuild social fabric, further expand the application of local indigenous knowledge and regenerate natural systems.

The further collection of resource flow data across all sectors will enable the mapping of supply chain routes, placement of transfer nodes & capability and technology & infrastructure hubs that can best support the activation of Circular Economy Clusters in Hepburn Shire that has the potential to evolve into a functioning Circular and Regenerative Economy over time.

The project has proven the hypothesis that actioning a Circular Economy in Hepburn Shire has the potential to build a more economically strong, equitable, thriving and resilient community. The Circular Economy has been observed as a highly accessible concept that has broad business and community support.

Introduction

Z-NET Circular Economy Integration.

Hepburn Shire Council and Hepburn Z-NET is expanding the blueprint to include climate change adaptation. There is the opportunity to dovetail in integration of Circular Economy simultaneously to ensure a leading example of holistic climate action for the Hepburn Shire.

Whilst we have had an opportunity to reflect on community resilience and local supply chains a result of the global pandemic, we must consider that we'll have new shocks to our community and economy in the future. Those invested in Local, Sustainable and Circular business have fared far better during the pandemic than those dependent on Linear economy, Take, Make, Use, Waste business.

Being more collaborative, inclusive, distributed, diverse and connected locally, the Circular Economy enhances resilience and provides the foundation for healthier, happier, growing and thriving communities. This proposal outlines a practical approach to understanding, mapping and actioning the opportunities presented by the Circular Economy for Hepburn Shire.

Sustainable Development Goals alignment.

This project aligns with the following UN Sustainable Development Goals: 8 Decent work and economic growth; 9 Industry innovation and infrastructure; 11 Sustainable cities and communities; 12 Responsible consumption and production; 13 Climate action.

Hepburn Shire 2021-2025 Council Plan alignment.

This project aligns with the following Focus Areas and Priority Statements of the Council Plan 2021-2025:

- 1: A resilient, sustainable and protected environment
 - 1.1 Adapt to and mitigate climate change to reach net-zero community emissions by 2030
 - 1.2 Prioritise environmental management, protection and regeneration
 - 1.3 Transition to ecologically sustainable and accountable tourism
 - 1.4 Develop meaningful policies and strategic partnerships
 - 1.5 Protect and regenerate the natural resources of the Shire
- 2: A healthy, supported and empowered community
 - 2.4 Assist our community to increase access to healthy food
- 4. Diverse economy and opportunities
 - 4.3 Support and facilitate a diverse and innovative local economy
 - 4.4 Develop and promote the circular economy

Introduction

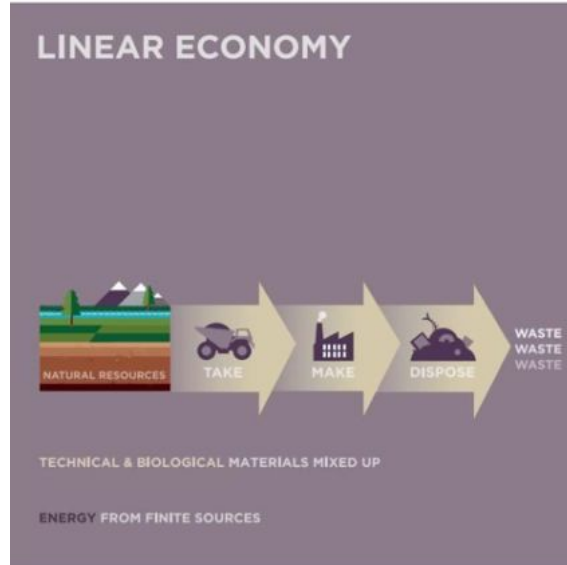
Transitioning Hepburn Shire to a Circular Economy.

The traditional linear economy is based on a take, make and waste model developed at a time of a much lower global population and 'seemingly endless natural resource' at the start of the industrial revolution. Built in or planned obsolescence is a common trait of this model.

Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system.

Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems

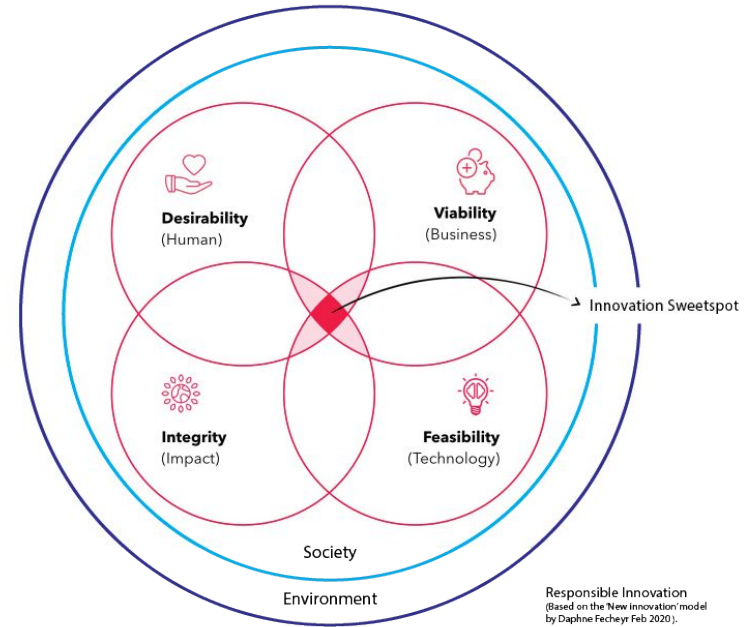


Introduction

Building a community driven Circular Economy.

This work takes a practical Responsible Innovation approach to supporting Hepburn Shire transition to a Circular Economy. Building on the Human Centred Design (HCD) innovation layers of Desirability, Feasibility and Viability the Responsible Innovation model adds a fourth layer 'Integrity' which considers impact.

The model is integrated into Societal and Environment systems in a practical co-design, test and learn iterative process, they are not considered externalities. This model is a step closer to the advanced systems thinking Relationalist ethos model authored by Indigenous Leader Aunty Mary Graham to explain indigenous thinking to non indigenous people. ¹. The authors of this report look forward to connection and collaboration with local Djaara leaders for the next phase of the project. Relationality is by it's very nature 'Systems thinking' which is what we need for management of the complexity of transitioning from a linear to circular and regenerative economy.



1. Dr Mary Graham Relationalist Ethos. <https://www.abc.net.au/religion/mary-graham-morgan-brigg-relationalist-ethos/13604298>

Introduction

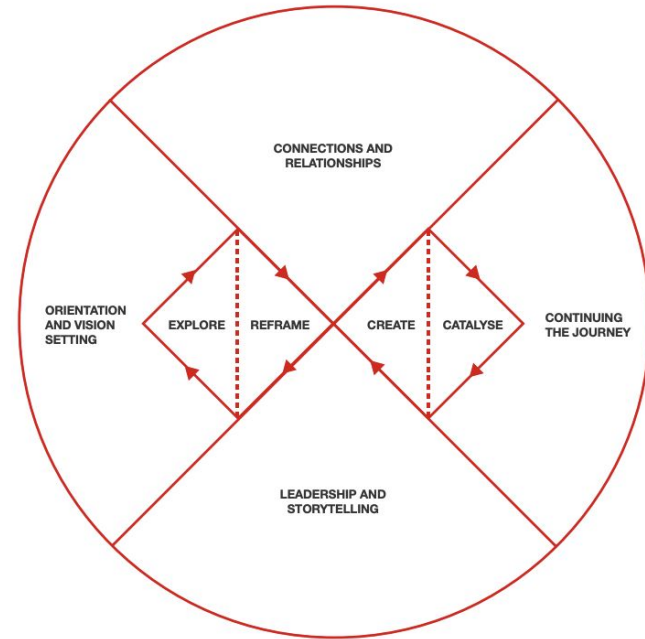
Building a community driven Circular Economy.

Storytelling, Relationality, Co-Design and Collaboration has been embraced by the UK Design Council as part of the Beyond Net Zero 'Systemic Design Approach' model, right. 2.

Systems are dynamic, constantly evolving and based on relationships between elements. Systems thinking is a comprehensive approach that considers not only the individual elements involved in a project but also how these elements interrelate, how the system changes over time, and how it relates to its wider environment. This approach is cross-cutting, bringing together every level, from grassroots organisations to local government to national policy.

This project is positioned in the Orientation and Vision setting 'Explore' quadrant of the Systemic Design Approach model.

The following **Circular Economy Roadmap** was developed with a future cross sector scope in mind. It demonstrates how micro level local business projects combined with meso level institution co-design & community of practice building initiatives and macro level model building together enable 'transition ownership' through experiencing the process.



2. Beyond Net Zero UK Design Council <https://www.designcouncil.org.uk/fileadmin/uploads/dc/Documents/Beyond%20Net%20Zero%20-%20A%20Systemic%20Design%20Approach.pdf>

Hepburn Shire Circular Economy Roadmap - Next Steps

		Phase 1		Phase 2	
		Discovery →	Understand & Define →	Ideate & Validate →	Make & Test
Meso Level	Micro Level	Research. Artisan Ag. Hospitality & Tourism Case studies. CE Readiness Snapshot. Circular Strategies.	Resource Flow Data Capture - Community and business, extensive surveys/interviews. Local Circular Business Dev-CoDesign, Prioritise and Run Pilots.	Local Circular Business Accelerator, Iterative design and Testing. Resource Flow Data Maps validated.	Local Circular Business Accelerator initiatives. Rapid Action Projects. Demonstrate and test CE Knowledge / capability
	Community	Webinar and Workshops. CE Champions identified Research Existing Sustainability initiatives.	Workshops CE Ambassadors. Community initiatives. (Pilots) CE professional dev workshops. Collaboration with Sustainability Initiatives, Opportunities for CE in Hepburn Shire (Pilots). Data capture.	CE Opportunity Community CoDesign Clusters Circular Node expansion. Tip-Shop 2.0 Operational. Schematic map of CE initiatives and infrastructure.	CE Knowledge Hub & Community CE Network expansion. Expanded CE Marketplace Ecosystem & Node Database. Infrastructure investment prioritisation.
	Council Commerce	institutions, networks & initiatives. Identify quick wins and potential pilots.	Workshops CE Advocates Business initiatives. (Pilots)	Supply chain collaboration mapping. SME Cluster and Circular Node design. Design Pilots.	Design and Build Physical Circular Node Pilots. Test & Improve
Macro Level		Existing strategy and policy. ZNet. Building on Visions of resilience 2020	CE Framework research. Systems Level Circular Economy development. Regional supply chain mapping. CE Strategy planning.	Circular Economy Framework. development - MVP. CE Bridge Ballarat-Bendigo-Macedon LGAs CE Strategy Development	Hepburn Shire CE Framework actioned. Shire Doughnut Model & CE Activation programs
Regional Macro View		Collaboration with Djaara. Collaboration and Trade with other Local Government Circular Economies, CE Regional Strategy Development Regional LGA's, Macedon, Bendigo, Ballarat. Funding applications - State and Federal Government.			

Connecting Hepburn Shire's Circular Economy - Project outline

The project was delivered in 3 stages culminating in the analysis of key discovery inputs to support recommendations.

Phase 1 Discovery: Stage 1.a

Delivery Date

Circular Economy Readiness Snapshot Survey Development.
Communications plan. Participate Hepburn Webpage.
Case study research design.

August 2022

Phase 1 Discovery: Stage 1.b

3 Circular economy case studies developed with local businesses.
Interviews with local businesses.
Webinar presentation development.
Introduction to the Circular Economy. Webinar Presentation.

August - October 2022

Phase 1 Discovery: Stage 1.c

1. CE Readiness Gap Analysis.
2. Circular Economy Business workshop development and delivery.
3. Final case studies prepared.
4. Analysis of key discovery inputs 1, 2 and 3.
5. Final project report documentation and recommendations.

October 22 - February 23

Research overview

Preliminary research for this project was carried out over a two year period prior to starting the project while Sustainability Victoria grants were being considered.

The intent of the research for this project was to develop a cross community level Circular Economy Readiness '**Snapshot**', ie to gain a sample of the level of knowledge in the shire about Circular Economy Strategies and concurrently, to gain a view of the level of use of those strategies.

It is important to note that this research was not intended to be a full scale Readiness analysis as this would require a thorough investigation of all sectors, capacity, resource flow data and infrastructure.

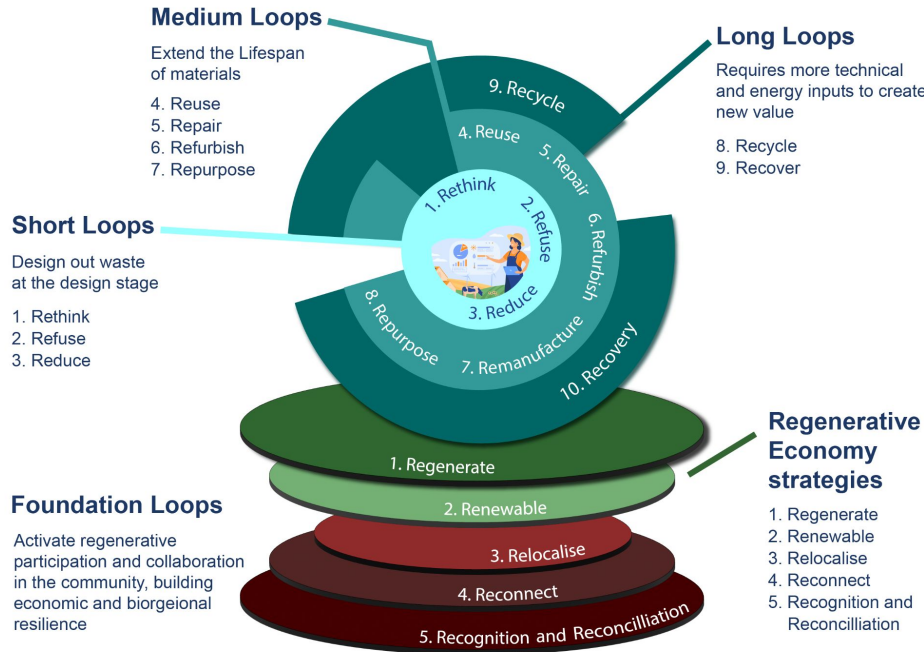
Circular Economy strategy learnings indicated that community Circular Economy adoption correlated directly to community innovation capability. The survey design therefore included inputs from the Eurostat Community Innovation Survey Source: The Circular Economy Strategies included in the survey, included inputs sourced from the study, *Circular Economy: Measuring Innovation in the Product Chain Policy Report*. 1.

The Regenerative Economy foundation loop strategies included in the project research were developed by the author in conversation with international experts from the aRoundTable team and the o2 Global Network board. The Recognition/Reconciliation regenerative economy strategy was developed with Paul Paton CEO at FVTOC, (Federation of Victorian Traditional Owners Corporations).

1. Circular Economy: Measuring Innovation in the Product Chain Policy Report. José Potting, Marko Hekkert, Ernst Worrell and Aldert Hanemaaijer (2017), Figure 1 : 5.

Research overview

Connecting the Circular Economy in Regional Victoria



The research was conducted in both a quantitative and qualitative manner. 89 people participated in the online survey and 16 interviews with local business owners were carried out in person, via phone and via zoom, totalling 103 research participants.

The circular economy strategies included in the survey were divided into 4 groups, Short Loops, Medium Loops, Long Loops and Foundation Loops (Regenerative economy strategies).

The survey also asked participants questions about product diversification and innovation during the previous year under the pressure of a rapidly changed market dynamic due to the Covid dynamic to gain a view of the level of innovation potential.