Regional circular economy plans engagement program

Engagement Summary Report

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Prepared by

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For Department of Environment, Land, Water and Planning (DELWP)

VICTORIA State Government

Executive Summary

Purpose of this document

This document outlines the engagement program that has been undertaken by Conversation Co. on behalf of the Victorian Government to support the development of Regional Circular Economy Plans (RCEPs). It outlines the program purpose, engagement methods undertaken, participants involved, findings of the program, and an evaluation of the program.

Regional Circular Economy Plans (RCEPs)

The Victorian Government is developing RCEPs for regional Victoria. The RCEPs are statements of intent for each region's circular economy aspirations and priorities to 2030, to be owned by all stakeholders and used to strengthen circular economy opportunities in regional Victoria.

To enable RCEPs to be developed, five regions were defined based on established Waste and Resource Recovery Groups (WRRGs) clusters, including Gippsland, Hume (Goulbourn Valley and North-East), Loddon Mallee, Grampians Central West, and Barwon South-West. These clusters are well established and understood, particularly by local regional councils and waste industry operators and associations.

The RCEPs support the delivery of the Victorian Government's circular economy policy, Recycling Victoria: a new economy, including Goal 1 – Design to last, repair and recycle; Goal 2 – Use products to create more value; and Goal 3 – Recycle more resources.

The Engagement Program

To support the development of the RCEPs as statements of intent, owned by all stakeholders, the Victorian Government engaged Conversation Co. to plan and deliver an engagement program to engage with stakeholders to understand the local circular economy needs, aspirations and priorities for each region.

The program was designed to encourage a diverse mix of government and non-government participants to think strategically about their region, where they are now, where they want to be by 2030, and how they can work together to get there.

Over 125 organisations participated in the program, including representatives from local government, the waste and resource recovery industry, businesses and business associations, including manufacturers, social enterprise, research and education institutions, and the Victorian Government.

Findings

This report provides individual findings for each of the five regions, including:

- Strengths and future opportunities to strengthen the region's circular economy.
- Weaknesses and future threats to the region's circular economy.
- Regional circular economy aspirations to 2030 and priorities to achieve these aspirations.

Consistent Themes

Several consistent themes emerged from the findings across the five regions, including similar shared barriers, opportunities, aspirations and priorities, including:

- There is strong interest in strengthening circular economies across regional Victoria.
- Regions further from Melbourne are challenged by cost of transport, market demand and encouraging investment.
- Populations close to Melbourne find it difficult to keep recovered materials in region with service providers opting to use metro facilities.
- There is a common recognition that systemic changes are required to strengthen the whole circular economy system, from product design and manufacturing, avoidance, reuse, recycling, and energy capture.
- Businesses, commercial operators, and manufacturers look to local, state, and federal government to give them confidence to invest in infrastructure, services and to bring new products to the market.
- To enable consumers to support circular economies, they require simple and accessible collection services, clear product labelling, and improved availability of reused products and products made from recycled materials. This will reduce contamination and increase material feedstock.
- Research, education institutions and social enterprise seek funding to invest in research, trials, and programs; data to understand individual and collective impact; and collaboration opportunities to work together.
- Product stewardship programs were sought across regional Victoria, whilst recognising this as a federal government responsibility.

Recommendations

Based on the RCEP engagement program delivery and analysis of information received, Conversation Co. recommends that the Victorian Government:

1. Keep participants informed of engagement outcomes.
2. Align the RCEPs development work to existing Victorian government policy and research.
3. Invite expressions of interest to deliver aspects of each RCEP - leverage existing networks or committees and/or seek expressions of interest.
4. Demonstrate commitment in action for implementation of the RCEPs - find immediate ways to deliver each RCEP and communicate these changes back to participants.
5. Prioritise recommendations with joint benefit - implement common priorities first.
6. Engage with Traditional Owners and First Nation Peoples during the testing or implementation of the RCEPs.
7. Engage with commercial and industrial (C&I) stakeholders - carryout additional research with larger developers particularly in Hume, Barwon South West and Grampians Central West.
8. Engage with organics stakeholders - additional research may be needed to understand the infrastructure requirements, process, or regulatory requirements.
9. Broaden understanding and reach of program - consider ways to communicate the circular economy policy and its practical application alongside implementation of the RCEPs.
10. Share stakeholder needs and roles - consider ways to bring both the needs and role of stakeholders to the attention of others alongside implementation of the RCEPs.

Contents

Introduction

Conversation Co was engaged by the Victorian Government to design and deliver an inclusive engagement program to assist with the development of five Regional Circular Economy Plans (RCEPs) across all five regions across regional Victoria (refer to Appendix 1 for information about regional grouping).

The purpose of the engagement program was to engage with regional councils, business groups and associations, the waste industry, manufacturers, social enterprise, education providers, and the Victorian Government, to understand the local circular economy needs, aspirations and priorities for each region. Then using this understanding prepare and prioritise aspirations and priorities in partnership with stakeholders involved. Findings from this engagement program will be used to prepare the RCEPS.

Program purpose

RCEPs will outline each region of regional Victoria's circular economy aspirations towards 2030, and the priorities to achieve this in the next five years. The resulting RCEPs will be used by local government, state government, industry, and community to inform government policy, program design and implementation to strengthen circular economy opportunities in regional Victoria.

Policy alignment

Preparation and implementation of these RCEPs will help to deliver the Victorian Government's circular economy policy, Recycling Victoria: a new economy 2020. This Policy is the Victorian Government's 10-year policy and action plan for waste and recycling.

The RCEP engagement program was aligned to the following three goals within *Recycling Victoria: a new economy 2020*:

Goal 1 Design to last, repair and recycle	Support businesses to strengthen their role and ability to operate within a circular economy (grants, product stewardship and innovation).
Goal 2 Use products to create more value	Help people make smart purchasing decisions and extend the life of products and support the reuse economy, repair goods where possible.
Goal 3 Recycle more resource	Reform kerbside collections to generate more value from waste; improve the separation of recyclable materials; develop markets for recovered materials; plan for and boost investment in recycling infrastructure; embed the waste hierarchy in the management of materials; support the development of appropriate waste to energy facilities.

Summary report purpose

The purpose of this engagement summary report is to present the findings from the engagement program for use within the RCEPs; and provide a comparison of the different stakeholder priorities and the common priorities across the five regions to assist with implementation of the RCEPs. This engagement summary also details the engagement methods used, the participants involved\ and provides an evaluation of the RCEP engagement program. Detailing the engagement methodology is provided to assist with future consultation programs delivered by the Victorian Government.

Findings within this summary report should be viewed alongside Sustainability Victoria's Statewide Waste and Resource Recovery Infrastructure Plan (2018) (SWRRIP), Regional Waste and Resource Recovery Implementation Plans (Regional Implementation Plans), Infrastructure Victoria's Advice on Recycling and Resource Recovery Infrastructure (2020) and Department of Jobs, Precincts and Regions Regional Economic Development Strategies (REDS, 2022) to prepare the RCEPs.

Methodology

The RCEP engagement program was planned and delivered in accordance with the Victorian Government's Public Engagement Framework 2021-2025 and its six principles for engagement:

1. Meaningful: engagement is genuine and informs the final decision.
2. Inclusive: engagement is respectful, inclusive, and accessible.
3. Transparent: engagement is clear and open about what can and cannot influence.
4. Informed: engagement provides relevant and timely information to the public.
5. Accountable: engagement is high quality and responsive to the public.
6. Valuable: engagement creates value for the community and government. This can include social, economic, and environmental value.

The purpose was to invite and support participation from regional representatives, those that both operate or have the potential to operate in a future circular economy within one of the five regions (see Appendix 1). This included representation from:

- Local councils.
- State Government agencies.
- Commercial operators and industry associations.
- Businesses and business associations.
- Social enterprises and incorporated committees.
- Researchers and educators.
- Industry (manufacturers/reprocessors).
- Material recovery operators.

Delivering a regional approach, as opposed to focusing on a single local government area was deliberate and challenged participants to think strategically, beyond their day-to-day responsibilities and ultimately seek compromise throughout the priority setting process.

Participation in this engagement program was not open to members of the public. Stakeholders were encouraged to bring along data and information on behalf of their customer and/or community into the program, through their participation.

Stages of Engagement

The engagement program was delivered in three stages between April and June. These stages are presented in Table 1.

Table 1. Engagement Stages

Stage	Purpose	Method
Stage 1 Understanding regional influences Week commencing 4 April – 15 April 2022	Understand the current state of the circular economy in each region, including the strengths, weaknesses, opportunities, and threats.	Facilitated workshops (5) with RCEPs Engagement Program Participants
Stage 2 Developing regional aspirations and priorities Week commencing 2 May – 6 June 2022	Understand regional priorities from the perspective of industry, business and business associations, social enterprise, researchers, and educators. Consider this alongside the information in Stage 1 to determine a draft set of aspirations and priorities.	Facilitated workshops (5) with RCEP Program Participants, Interviews (14) and Focus Group (4).
Stage 3 Refining regional aspirations and priorities Week commencing 13 June – 27 June 2022	Present information collected from Stage 2, refine, and prioritise aspirations and priorities with an understanding of this new information.	Facilitated workshops (5) with RCEPs Engagement Program Participants

Methods in detail

We had representation across 126 organisations. Appendix 2 lists the organisations that participated in each of the engagement methods, described following.

Facilitated workshops

Three workshops were delivered for each region of regional Victoria – refer to Appendix 1. Each workshop was delivered online and ran for three hours. Stakeholders included representatives from:

- Local councils.
- State Government agencies.
- Commercial operators and industry associations.
- Business and business associations.
- Social enterprises and incorporated committees.
- Researchers and educators.

Workshop participants were provided information to assist their understanding of the demographic and economic drivers within the region, current circular economy processes and existing/proposed infrastructure. This information was prepared by the Department of Environment, Land, Water and Planning and included information from Infrastructure Victoria's Advice on Recycling and Resource Recovery Infrastructure (2020) and the Department of Jobs, Precincts and Regions Regional Economic Development Strategies (REDS, 2022).

Each workshop was delivered online, time was spent in Workshop 1 understanding the current circular economy conditions, and opportunities and weaknesses to consider in the future. Future aspirations and priorities were discussed in Workshop 2, then tested and prioritised in Workshop 3. An outline of the workshop program is provided in Appendix 2.

Regional focus groups

Four focus groups were delivered, one for each region (excluding the Hume region due to low registration). The following stakeholder groups were invited:

- Industry (manufacturers/reprocessors).
- Material recovery operators.
- Researchers and educators.
- Social Enterprises.
- Industry and business associations.

Sessions were delivered online and focused on strengthening the draft aspirations and priorities developed for each region.

Industry interviews

Fourteen interviews were delivered with representatives that both operate or have the potential to operate in a future circular economy.

Interview questions followed a similar format to the workshop discussions:

- Organisation profile including products/projects using reused or recycled content.
- Challenges or barriers for the organisation in the use of reused or recycled content.
- Resolutions and opportunities to use reused or recycled content.
- Perspective on the role of industry and the different levels of government in strengthening the circular economy.Information collected from the interviews was presented to workshop participants during Stage 3 and considered as part of the regional understanding.

Strategies to Support Participation

An important part of our practice is to reflect on how stakeholders were supported to participate, and any obstacles to participating.

Supporting participation

To support stakeholders to participate fully in the RCEPs engagement program we:

Delivered the program online:

Three workshops, interviews and regional forums were delivered online. Reducing the need for travel, providing a COVID-19 safe environment for travel, therefore increasing the likeliness of attendance particularly industry and businesses located outside of the regions.

Provision of time and information:

On average participants were provided five business days to review project information or workshop summaries to adequately prepare for future sessions.

Flexibility with attendance:

Industry participants were invited to participate from Workshop 2 onwards, or alternatively participate in an interview or regional forum with a reduced time commitment.

Engagement program reminders:

Registered participants were sent reminders of workshops, to increase attendance and build anticipation, this included a calendar invite, direct email, and mobile phone message.

Limitations of the engagement program

There are a few limitations to the methodology applied as part of the RCEP engagement program. These include the following:

Compressed timeframe for RCEP engagement program:

The need to surface key findings of the regions meant the timeline for delivering the RCEPs program was quite compressed. A longer and broader engagement period would be encouraged for future engagement programs.

Engagement with Traditional Owners and First Nation Peoples:

In-depth consultation with Traditional Owners and First Nation People's was not conducted as a separate activity. It is recognised this should be incorporated for all future circular economy engagement activities.

Reduced involvement from industry groups:

Some regional areas lacked involvement or participation from manufacturing, construction and agriculture sectors.

Investment of time required:

Participants within the RCEP engagement program were asked to commit to attend three workshops, representing a time investment of 15 hours, with additional time in-between workshops required for reading and preparing for the next session. We experienced a drop in participation after Workshop 2 (during Stage 2).

Time of year:

Some local government and industry participants were involved in contract and procurement discussions, which at times limited the information that could be provided by both cohorts.

Engagement fatigue:

For some stakeholders, the RCEP program was a retake of previous recycling and waste infrastructure planning projects, which in the eyes of some, had not made a difference for regional participants. We experienced a drop in participation after Workshop 2 (during Stage 2).

Regional Findings

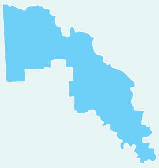
Similarities exist across the five regions of regional Victoria, regions further away from Metropolitan Melbourne were challenged by the cost of transport, market demand and investment.

Regions where a larger proportion of their population was closer to Melbourne, found it difficult to keep waste products in their region with service providers opting to recover these resources in metro facilities.

Consumer and community participation remain a challenge for each region - adherence to waste and recycling processes and contamination are all impacting the feedstock volumes and quality. Table 2 summarises potential barriers and the opportunities to strengthen the circular economy.

Table 2. Barriers and opportunities across the regions

Region	Summary of barriers to overcome	Summary of opportunities to leverage
Barwon South West 	• Large geographical area and travel distances. • Uncertain market conditions and end market for recycled products. • Availability of staff and expertise in the area. • Restrictive land use planning, coupled with residential growth occurring in parts of the region.	• Population size and household mix, make it suitable for trialling projects. • High availability of brown-and greenfield land and transport infrastructure and connections. • Diversity of industry in the region: agriculture, renewable energy, food processing and education. • Renewable energy sector and potential to co-locate collection services for solar panels and materials used.
Gippsland 	• Distances between waste sources and processing facilities. • Lack of availability of recycled products and materials. • Variation in quality due to inconsistent collection and contamination. • Uncertain market conditions and end market for recycled products.	• Land availability for local processing and manufacturing plants or precincts. • Skilled technical workforce looking for opportunities to retrain. • Strong agricultural sector. • Current projects to draw on and promote, such as local biochar production.
Grampians Central West	• Small population size and relatively high social issues (resistance, affordability). • Availability of staff and expertise in the area. • Lack of availability of recycled products and materials. • Variation in quality due to inconsistent collection and contamination.	• Current trials and new projects e.g., Ballarat West Employment Zone (BWEZ). • Interest from the agricultural sector to increase the capacity of recycled organics processing. • Proximity to Melbourne with high-capacity transport connections.

Hume 	• Lack of local markets for end use products, combined with the region's proximity to Melbourne. • Recycling industry's focus on profit and collection volumes. Therefore, domination by larger organisations. • Lack of regulatory barriers, inexpensive cost of virgin materials. • Population growth exceeds investment in recovery and processing infrastructure.	• Strong multi-modal transport connectivity and proximity to Melbourne and access to the region. • Concentration of agriculture, construction and major food manufacturers aiding both supply of feedback (organics) and use of recycled materials (glass). • Availability of land appropriately zoned. • Participation rates of food and organics waste collection service.
Loddon Mallee 	• Capacity of local government, working in a rate constrained environment, challenged to deliver routine services, let alone invest in a circular economy. • Low economies of scale for some waste streams. • Seasonal fluctuations in feedstock supply and availability. • Availability of staff and expertise in the area. • Variation in quality due to inconsistent collection and contamination.	• Strong transport network connectivity to processing facilities and products to end markets. • Investment and trials are underway. • Land availability to co-locate sorting, processing, and manufacturing precincts, with enough of a buffer from residential growth.

Following are findings for each of the five regions of regional Victoria. Each section is divided into two sections:

- Background information – summary of the information provided to workshop participants to assist their understanding of the demographic and economic drivers within the region, current circular economy processes and existing/proposed infrastructure.
- Regional discussion – summary of strengths, weaknesses, opportunities and threats from participants of the RCEP engagement program.
- Aspirations and priorities - future aspirations towards 2030 and priorities to achieve these aspirations over the next five-year period developed and prioritised by workshop participants during Workshop 3.

Key Findings: Barwon South West Regional Engagement Program

Background information provided

As noted in the Methodology, workshop participants were provided with a regional profile to assist their understanding of the demographic and economic drivers operating in the region, the current circular economy processes and current infrastructure.

The key points providing a regional context for the Barwon South West workshops were:

- Population growth is likely to lead to higher rates of recyclable content and organics entering the system particularly from Geelong and Surf Coast– opportunity for local industry to manage the material.
- Construction sector is growing, providing a potential off take market for key commodities. Manufacturing (eastern part of the region) continues to have a strong local footprint.
- Agriculture is the strongest performing sector in the western half of the region – strong opportunity to capture organics material for end use.
- 100% of kerbside recycling collected is sorted in metropolitan Melbourne.
- Roll out of the organics bin has played a key role in rising organics collection rates.
- Former material resource facility (MRF) in Geelong is no longer operational – strong reliance on Melbourne MRFs for sorting regional material.
- Significant organics reprocessor located in Mount Gambier (SA) currently servicing Victorian border councils.
- Organics capacity at local reprocessing sites to be outstripped by regional generation in coming years.

The region's existing strengths and weaknesses and future challenges and opportunities were explored during the RCEP engagement program. In the Barwon South West region this was addressed using the two sub regions in alignment with the Department of Jobs, Precincts and Region's Regional Economic Development Strategies.

A key strength of the Barwon sub region is the existing partnerships, and growth in population. whereas in the Great South Coast, it is the food and fibre industries and availability of organic feedstock supplies. Great South Coast sub region was challenged by the distance from processors and large geographical areas to cover. Monopolies in the market, lack of control over future market conditions and climate change were considered future threats.

Discussed strengths and future opportunities

Participants nominated the following strengths and future opportunities for the Barwon South West region:

- Size of the population and current household mix, making it suitable for trialling projects due to the volume of waste stream availability.
- Networks and existing collaborations between local government and Deakin University; CSIRO and Deakin University and G21 Alliance and Victorina Cleantech Cluster; SouthWest Victoria Alliance' which includes council South Grampians, Warrnambool, Corangamite, Glenelg, Moyne and Colac-Otway plus Deakin University and Wannon Water.
- Business diversity which already generates a broad range of recoverable resources and presents an opportunity for use in recycled products and materials.
- High availability of brown-and greenfield land and transport infrastructure and connections.

For the Great South Coast sub region, the strengths and future opportunities were:

- Diversity of industry in the region: agriculture, renewable energy, food processing and education.
- Population size and land features: deep aquifer and space for industrial development.
- Current projects and the opportunity to build on these projects e.g., BioGrow in Colac, demonstrations across the Great South Coast Group of Councils.
- Proximity to South Australia and strong transport connections.
- Renewable energy sector and potential to co-locate collection services for solar panels and materials used.
- Retain workers and embed projects in small communities.
- Influence product design to make it easier to repair and recycle.
- Move towards a plastic free society (that avoids the problem altogether).

Discussed weaknesses and future threats

Participants nominated the following weaknesses and future threats for the Barwon sub region:

- Lack of community involvement and participation in the circular economy system and managing this with a growing population.
- Low volumes of some waste streams.
- Closure of Drysdale landfill (in 7-10 years) placing pressure on the region to divert valuable resources from landfill.
- Uncertain market conditions including competition for feedstock, instability of end markets, dominance by larger operators and waste export bans discouraging investment.
- Funding cycles across the varying local councils is different, this makes it difficult for industry and markets to warrant commercial investment.

For the Great South Coast sub region, the weaknesses and future threats were:

- Size of the geographical area to cover.
- Limited industrial workforce and availability of staff is already challenged.
- Market conditions and restrictions: lack of control over processing and location of product to commercial providers.
- Lack of business continuity plans in place, existing monopolies.
- Restrictive land-use planning (proximity to residential areas or environmentally sensitive areas).
- Climate impacts on local industries e.g., dairy and impact on volume.

Regional aspirations and priorities

Increasing the value derived from a strengthened circular economy was further explored during the RCEP engagement program.

For the Barwon South West region this was:

- Bringing new market entrants to the region, while finding solutions to local concerns (plastic silage wrap), encouraging regionally benedictional infrastructure, and encouraging development of future training pathways.
- Recovering more waste from landfill, by reducing contamination rates, increasing capability, and extending organics collection into cafes and restaurants.
- Aiding a change in community behaviour, to use all parts of the system (avoid, reduce, reuse, and recycle), while expanding the repair café network and increasing uptake of the food-green organics service.
- Creating a resilient recycling system with a focus on local markets to reduce transport costs while increasing the number of products used locally.

To derive the full benefits from a strengthened circular economy, Barwon South West's aspirations for 2030 are (in prioritised order):

1. Stimulate demand for circular economy solutions.
2. Incentivise circular economy investment.
3. An empowered consumer.
4. Product stewardship standardisation.
5. Integrate our renewable sector into the circular economy.

These circular economy aspirations are described in further detail:

Stimulate demand for circular economy solutions

In the Barwon South West region, circular economy opportunities are supported and encouraged through consistent regulation, investment decisions based on evidence and opportunities to work in collaboration.

Priorities to achieve this:

- Increase the uptake and use of recycled and recyclable materials within all levels of government through procurement practices and mandating appropriate levels of recyclable material in all projects.
- Undertake research to understand the infrastructure and processing needs across different industries to identify cross-industry manufacturing opportunities e.g., co-location of infrastructure.
- Support reuse entities already working in the region to expand their capabilities or explore new projects which fit with the region's circular ambitions.
- Undertake research into markets with high waste volumes such as textiles, agricultural plastics, and solar panels or other priority materials, to attract new entrants with minimum volume requirements across a longer term.
- Develop consistent standards, guidelines, and legislation to encourage product design and manufacturing to meet circular economy objectives.
- Consumers see avoidance as a legitimate solution to the circular economy.
- Advocate for new regulations to incentivise building developers to design and build homes with end-of-life deconstruction in mind.
- Engage proactively with global corporations to understand how we can work collaboratively to support the region's circular economy.

Incentivising circular economy investment

The Barwon South West region is known as a leader in the circular economy, for its collaboration, commitment to and investment in education, infrastructure, and processing capabilities.

Priorities to achieve this:

- Use strategic and region wide mechanisms to raise the profile of circular economy, including investment in infrastructure to increase reprocessing capacity for organics, carbon fibre and textiles,
- Educational pathways for young people and those interested in retraining to pursue a career in circular economy.
- Invest in new materials recovery facilities in proximity to both Geelong environs and the South West to facilitate local processing and manufacturing.
- Promote innovative and collaborative approaches through science, technology, and initiatives to demonstrate reuse of materials, or recycling across different industry types.
- Make better use of existing tools and information to map and understand local circular economy opportunities including materials flow, use and volume to enable better take up (e.g., Sustainability Victoria, ASPIRE).
- Invest in storage facilities and redistribution solutions to support industry with feedstock collection and reusable goods storage.
- Build on Geelong and Portland's large manufacturing base and invest in research and development to support a transition to a circular economy.
- Undertake research and invest in the paper, glass, and plastics industry to increase use of these recyclable materials.

An empowered consumer

In the Barwon South West region, consumers are informed and empowered to make environmentally conscious choices, they understand the environmental impact of their purchasing decisions and actively avoid waste through new informed purchases (Informed and enabled).

Priorities to achieve this:

- Improve access to local services, solutions, and facilities to recover household and commercial resources by material type and process recyclables.
- Improve access and reduce barriers for community groups and consumers to repair and share common household items.
- Broad scale waste avoidance/reduction/reuse education campaign focussing further up the waste hierarchy than recycling/composting (e.g., Small Acts Big Impacts).
- Promote sustainable, locally manufactured products within the region to support local circular economy jobs.
- Notify consumers to their annual household waste volumes and impact and promote relevant available services e.g. exchange programs, removal service, what currently happens to the waste (including pictures, videos tours), because people don't know (or don't want to know) what happens to what they throw, they just want someone to take it away and not think about it.
- Invest in community groups and social enterprises financially, training and volunteer attraction to continue to empower the community to transition to a circular economy.
- Communicate local circular economy outcomes to the community, promoting and celebrating the combined community effort e.g., recycling volumes, landfill volumes avoided, new products created.

Product stewardship standardisation

Products and materials created within the Barwon South West region are created with an understanding of their lifecycle, they are easy to reuse, repair, repurpose or recycle and manufacturers are supported to take up extended producer responsibilities.

Priorities to achieve this:

- Engage with industry and manufacturers to increase the percentage of recycled materials used and include the lifespan of the product on packaging.
- Expand product stewardship programs to incentivise manufacturers or resellers of consumer products to take back products, providing an end of product service that includes repair, collection, and recycling.
- Advocate for legislation changes to incentivise manufacturers to include the full social, environmental, and economic life cycle costs on packaging.
- Partner with product designers and initiators to include the full social, environmental, and economic life cycle costs in new products to incentivise use of recycled materials and products.
- Support existing product stewardships programs to encourage community uptake and use.
- Incentivise the use of the Australian Recycling Label for products sold and supplied within the Australian market to support the consumer to dispose and recycle the product thoughtfully.
- Establish new standards to guide manufacturers, particularly those working with plastic polymers, to select raw or recycled materials that can be easily recycled or repurposed.

Integrate our renewable sector into circular economy

The circular economy in Barwon South West is integrated with the renewable energy industry to reduce the use of non-renewable resources.

Priorities to achieve this:

- Increase the collection of e-waste to include household battery systems, smart meters and solar panels.
- Work collaboratively with suppliers, designers, and consumers to design reusable products that produce less waste and contamination.
- Invest in hydrogen technology to replace traditional battery use in the Barwon South West, during this transition invest in battery systems to service small neighbourhoods (micro grid system) to reduce the need for individual household batteries.
- Partner with Solar Victoria and DELWP Energy to support businesses manage costs and emissions from energy.

Key Findings: Gippsland Regional Engagement Program

Background information provided

As noted in the Methodology, workshop participants were provided with a regional profile to assist their understanding of the demographic and economic drivers operating in the region, the current circular economy processes and current infrastructure.

The key points providing a regional context for the Gippsland workshops were:

- Population increases particularly in Bass Coast and Baw Baw are likely to lead to higher rates of recyclables and organics entering the system – opportunity for local industry to manage the material.
- Construction and agriculture have a strong footprint in the region - local recyclers are a potential destination for locally sourced material. Manufacturing activity is not as concentrated as in other regional areas.
- Organics collection rates will continue to rise with the introduction of the FOGO service by 2030.
- Currently 61% of local kerbside commingled recycling is sorted outside the region.
- Two local MRFs may not have sufficient capacity to sort locally generated kerbside recycling but they also accept commercial and industrial sources. Two large MRF operators in southeast Melbourne service Gippsland councils.
- Local organics reprocessors manage material from large generating sources, which are impacting their ability to reprocess locally-generated kerbside organics.

The region's existing strengths and weaknesses and future challenges and opportunities were explored during the RCEP engagement program. A key strength and weakness for the Gippsland region is the availability of space and variations in distance to metropolitan Melbourne. As a strength, the availability of space has the potential to allow industry to co-locate next to waste management and local manufacturers, while having enough of a buffer to not interfere with residential areas; however, creates a challenge for the market to keep costs low while distance to travel and cover are so great.

Discussed strengths and future opportunities

Participants nominated the following strengths and future opportunities for the Gippsland region:

- Land availability for local processing and manufacturing plants or precincts, with the potential to co-locate these with industries.
- Skilled technical workforce looking for opportunities to retrain.
- Strong agricultural sector that is both a generator of organic feedstock and an end-user of soil enhancers produced from recycled organic material.
- Current inspirational projects to draw on and promote, such as local biochar production where wood waste is converted for use in agriculture.

Discussed weaknesses and future threats

Participants nominated the following weaknesses and future threats for Gippsland region:

- Distance between waste sources and processing facilities (particularly for eastern local government areas with lower volumes), and the impact this has on cost of recycling, scale potential, deterring new market entrants.
- Lack of alignment between policy and market set e.g., banning silage wrap will affect existing markets developed to recycle silage wrap.
- Variation in the quality of recycled product reduces the attractiveness of it as a commodity and affects availability for manufacturers.
- Uncertain market conditions, changing consumer demand, competition from dominant businesses, market disruption of pilot projects, commercial inertia, lack of market growth.
- Focus of contracts and funding is currently cost-driven which discourages investment and innovation in circular economy initiatives.

Regional aspirations and priorities

Increasing the value derived from a strengthened circular economy was further explored during the RCEP engagement program.

For the Gippsland region this was:

- Transitioning the region from its use of coal and gas to a region that demonstrates innovation in action, trialling new projects and programs.
- Aiding a change in community behaviour, to use all parts of the system (avoid, reduce, reuse, and recycle), while expanding the share economy, and changing perceptions of waste, to resource or material recovery.
- Bringing new market entrants to the region, while finding solutions to local concerns (plastic silage wrap), encouraging regionally benedictional infrastructure, and encouraging development of future training pathways.
- Recovering more waste from landfill, by reducing contamination rates, increasing capability, and extending use of organics products on farms.

To derive the full benefits from a strengthened circular economy, Gippsland's aspirations for 2030 are (in prioritised order):

6. Circular economy is a part of everyday life.
7. Working collaboratively to strengthen the circular economy.
8. Resource and recovery capital.
9. Strategically recovering resources.
10. Organics processing capacity and capability strengthened

These circular economy aspirations are described in further detail:

Circular economy is a part of everyday life

In the Gippsland region all materials are understood to have value, and everyone is engaged in the reuse and stewardship of resources in a circular economy.

Priorities to achieve this:

- Embed consistent practices to support community use of material collection points (research, standardisation) across the region, reduce confusion, contamination and increase collection volumes.
- Support social innovation activities through implementing share, swap and repair programs and services to assist the community to avoid waste generation and consumption.
- Deliver ongoing education to engage and empower and community to embrace their role in a transition to a circular economy.

Working collaboratively to strengthen the circular economy

All levels of government, industry, educatiown institutions, researchers and community in the Gippsland region are working collaboratively to deliver shared local circular economy outcomes.

Priorities to achieve this:

- Coordinate collaboration and sharing of waste and recycling data and insights between government, industry, and community to support better problem solving, decision making, reduce duplication, develop markets, and seize circular economy opportunities.
- Invest in infrastructure and services to strengthen the circular economy ecosystem with consideration to sustainability impacts, community value, industry need, water efficiency, emissions reductions, energy efficiency and land use planning.
- Increase funding to support innovation and investment in the region and increase availability of smaller grants to appeal to local scale businesses and community enterprises.
- Foster private sector engagement in the development of circular economy solutions; from redesign of products and business models through to recycling infrastructure.
- Attract more businesses to the region by promoting collaborative demonstrations/case studies such as public private partnerships to encourage investment and build confidence in private investment.

Resource and recovery capital

The Gippsland region industry sectors and services are integrated with advanced resource recovery infrastructure that produces large volumes of high-quality recycled products and materials that are used to their highest value.

Priorities to achieve this:

- Support collaboration between councils, industry, research, and education institutions to connect a network of local markets for recycled products.
- Encourage innovation in the way we work and organise ourselves, from our adoption of advanced technologies, creation of product, and process of unused material streams.
- Invest in resource recovery precincts to increase reprocessing capabilities closer to source and end markets with a focus on whole of region connectivity, planned to precinct strengths (hub and spoke model).
- Identify new recycling opportunities suited for local processing where large scale, transport and logistics are not cost effective.
- Provide education and re-skilling opportunities to build capacity and capability in recycling and manufacturing across the region.
- Attract large, recycled material manufacturers to the Gippsland region to create cost effective options within the manufacturing sector.
- Use the national e-waste scheme as a model to improve the recycling rates for other waste streams.

These circular economy aspirations are described in further detail:

Strategically recovering resources

In the Gippsland region, there is a clear value chain, return on investment and market opportunities for recovering and recovered materials which are well known, systemised and well utilised.

Priorities to achieve this:

- Design products with a plan for their entire lifecycle, including designing out waste and connecting the product to resource recovery opportunities.
- Incentivise the development of industries with a focus on repurposing and recycling material to a high product quality for end-use and maximise diversion of waste from landfill.
- Encourage, wherever possible, the purchase of locally produced products, made of reused or recycled content to raise community awareness of the broad scope of recycling potential.
- Undertake whole of region research to better understand market opportunities and market demands (consumer behaviour, investment requirements, feedstock availability and gaps, risks of supply and demand) for each materials stream and pathway.
- Coordinate government policy and procurement opportunities, at all levels to maximise circular economy outcomes.
- Map the plastics production lifecycle including manufacturing, use, and reprocessing to ensure all parts of the cycle are working towards zero waste by employing a system thinking approach.
- Standardise and publish waste stream data (type, volume, and characteristic) to support market development.
- Support the production of more pelletized plastic to meet existing demand and education to increase demand.

Organics processing capacity and capability strengthened

The Gippsland region is Victoria's leader in extracting maximum value from organics processing.

Priorities to achieve this:

- Co-locate a range of facilities in closer proximity to farms/agriculture facilities and hospitality business to minimise feedstock and product transport.
- Invest in local capacity and technical abilities to accommodate the processing of organic material of varying quality from other regions into high value end products.
- Undertake research into the risks of changing supply and demand for waste streams and manufacturing feedstock on capital investment into infrastructure and technologies to eliminate redundancy.

Key Findings:
Grampians Central West Regional Engagement Program

Background information provided

As noted in the Methodology, workshop participants were provided with a regional profile to assist their understanding of the demographic and economic drivers operating in the region, the current circular economy processes and current infrastructure.

The key points providing a regional context for the Grampians Central West workshops were:

- Population rise is likely to lead to higher rates of recyclable content and organics entering the system, particularly in the east half of the region – opportunity for local industry to manage the material.
- Construction sector is growing particularly around Ballarat and surrounding LGAs providing potential offtake markets. Manufacturing in the east continues to have a strong local footprint. Agriculture is the strongest performing sector in the western half of the region – strong opportunity to capture organics material for end use.
- Region generates the least amount of kerbside material across the five RCEP regions - 94% of kerbside recycling collected is sent to metropolitan Melbourne.
- Falling recycling collection rates are driven by councils bordering urban Melbourne, whilst
- collection rates have been static in the western half of the region.
- Rollout of the organics bin has led to rising organics collection rates. Local organics reprocessor appears to have sufficient capacity to manage locally-generated kerbside organics.
- Region does not have an operational MRF. Significant organics reprocessor located in Mount Gambier (SA) currently servicing Victorian border councils.

The region's existing strengths and weaknesses and future challenges and opportunities were explored during the RCEP engagement program. Existing trials and circular economy projects are a key strength of the Grampians Central West region, as they have built confidence and support for change, capturing the interest of other market entrants. However, existing systems, policy and processes are not set up to support this innovation and continued trial approach, posing a threat for the continuation of circular economy initiatives in the region.

Discussed strengths and future opportunities

Participants nominated the following strengths and future opportunities for the Grampians Central West region:

- Current trials and new projects underway demonstrate the value of circular economy initiatives e.g., Ballarat West Employment Zone (BWEZ).
- Interest from the agricultural sector to increase the capacity of recycled organics processing.
- Proximity to Melbourne with high-capacity transport connections to transport recycled products to markets outside the region.
- Redesign funding opportunities, structures, and timing between three levels of government to support local innovative trials involving low volume waste streams and social enterprises.
- Reduce state government red tape associated with waste collection, storage, sorting, and processing activities.
- Councils standardising waste streams as per the new state government policy position will improve sorting and reduce contamination.

Discussed weaknesses and future

Participants nominated the following weaknesses and future threats for Grampians Central West region:

- Lower socio-economic profile in some parts of the region may impact adherence to waste and recycling requirements.
- Issues with existing infrastructure, including power grid and transport distances to some districts discouraging investment in processing and manufacturing facilities.
- Low economies of scale of some waste streams, high relative costs of small processing facilities which reduce the cost effectiveness of recycling.
- Lack of staff resources and high costs prevent councils from pursuing circular economy projects.
- Waste streams such as food and garden organics waste are prone to contamination.
- Set up of current contract lengths of 5-10 years prevent market competition could stifle innovation and the success of new projects.
- Lack of locations available for sorting and processing purposes, particularly for smaller projects.
- Current grant application process and approval framework for funding of new projects discourages interest and innovation.

Regional aspirations and priorities

Increasing the value derived from a strengthened circular economy was further explored during the RCEP engagement program. For the Grampians Central West region this was:

- Aiding a change in community behaviour, to use all parts of the system (avoid, reduce, reuse, and recycle), to change perceptions of waste, to resource or valuable commodity and encourage a sense of pride and ownership.
- Creating a resilient recycling system through decentralised sorting and processing facilities and by keeping transport costs low, and volumes within the region, stimulating local demand for products.
- Recovering more waste from landfill, by diverting commercial and industrial waste to recycling processors; increasing capability of existing organics providers to expand to food-green organic waste and growing high value uses for glass feedstock.
- Attracting new market entrants to the region, through the availability of space and services in the future BWEZ.
- Availability and affordability of locally produced renewable energy, taking a circular economy approach could help to find solutions for future waste challenges (wind turbines).

To derive the full benefits from a strengthened circular economy, Grampians Central West's aspirations for 2030 are (in prioritised order):

1. Local solutions to local problems.
2. Empowering consumers and manufacturers.
3. Embedding circular economy practice.
4. Legislation and funding.
5. Regional research and development.

These circular economy aspirations are described in further detail:

Local solutions to local problems

There is a strong local demand for recycled materials that have been collected, aggregated, sorted, and processed within the Grampians Central West region.

Priorities to achieve this:

- Invest in local and regional processing and feedstock storage solutions to sort, clean and keep materials in the region, ready for industry use like the circular economy precinct Ballarat West Employment Zone.
- Prioritise the use of local recycled resources over virgin materials and products in procurement policies and engineering standards.
- Establish partnerships between local councils to identify suitable locations for regional circular economy precincts to bring together resources and processes, streamlining logistics and building it into the local planning scheme.
- Ensure local demand for recycled resources is prioritised before exporting recycled feedstock nationally or internationally to protect and support the local recycling system.
- Establish organics processing facilities across the region to facilitate implementation of mandated services, supply, and predicted demand for upcoming green technologies.
- Expand soft plastic collection and processing capacity throughout the region (e.g., RedCycle) to divert this resource from landfill.
- Co-locate renewable energy infrastructure near to resource recovery and manufacturing processes to support the facilities to operate at a low cost and low impact to the environment.
- Scale up collection, sorting, and processing for glass to take advantage of glass growth as a resource for this region (infrastructure projects).

Empowering consumers and manufacturers

In the Grampians Central West region consumers and manufacturers understand how to maximise the value in the product's lifecycle and reduce waste in the products consumed.

Priorities to achieve this:

- Facilitate existing and new local networks, to bring regional partners together to collaborate and create opportunities to stimulate circular economy advancement, while promoting best practice examples.
- Engage with and raise awareness with consumers about products and packaging that contain recycled material and are easy to reuse, repair and recycle in their region, while restoring their trust in the recycling system.
- Implement behaviour change programs to embed an appreciation of the value of used materials and products, reduce contamination and increase materials separation.
- Expand and promote community uptake and access to product stewardship programs, both retailers and manufacturers to include problematic waste and collection of packaging.
- Create economic stimulus to increase collaboration between manufacturing and construction businesses and incentivise replacing virgin materials with locally sourced recycled materials.
- Engage with manufacturers to advocate for a reduction in packaging within the local region.

Embedding circular economy practice

In the Grampians Central West region, circular economy is our social norm, it is economically, environmentally, and socially sustainable, we are clear and supported on the role we each play.

Priorities to achieve this:

- Specify the use of recycled products through procurement assessment and policy, to increase the use of recovered content, over virgin materials.
- Map feedstock seasons and identify gaps, allowing impacts to be managed to ensure the businesses that rely on processed recovered materials, such as composted organics, have consistent supply.
- Bring together existing agency, industry, and community groups to further regional circular economy, climate, biodiversity, and economic recovery initiatives.
- Establish accessible community collection points (or services) to collect separated recyclable streams (soft plastics, e-waste).
- Provide local training opportunities to attract and retain a local workforce to support existing and new market entrants with access to a skilled workforce.
- Establish and coordinate a multi-agency response to deliver regional circular economy, climate, biodiversity, and economic recovery initiatives.

Legislation and Funding

Government legislation, policy and funding encourage investment in, and uptake of reuse, repair, repurposing, and recycling in the Grampians Central West region.

Priorities to achieve this:

- Improve flexibility of funding programs to support innovation; adjust funding selection to be more 'outcome' focused. Change or introduce funding streams that are ongoing (multiyear), or rolling (e.g., evergreen) funding programs and where possible, reduce new entrant requirements.
- Develop standards to guide manufacturers in the use of recycled and recyclable content to create demand for reuse, repurposing, repair, and recycling.
- Align policy and regulation to support circular economy outcomes and objectives, beyond recycling.
- Align the timing of state and federal funding programs with council's long term capital expenditure programs to strengthen regional investment potential
- Advocate for the Environment Protection Authority (EPA) to create a simpler and responsive approach to provide advice on projects in their pre-feasibility phase, to facilitate investment.
- Legislation to mandate the use or recycled products and materials in (changes to procurement assessment).

Regional research and development

Through a coordinated approach to research and development we have identified a range of design, avoidance and alternative waste material uses to support new market entrants and pilot programs in Grampians Central West.

Priorities to achieve this:

- Invest in end market use identification programs to find ways to use and replace virgin materials in products.
- Undertake a materials flow analysis to guide end user investment that the entire region will benefit from (e.g., Ballarat/Grampians model).
- Foster/facilitate collaboration between universities, vocational education and training providers, agricultural colleges, and agronomists (e.g., Longerenong) to train and upskill workers for the circular economy.
- Establish a centre of excellence to coordinate ideas, research, pilots and communication between industry and research institutions to local circular economy opportunities and address local issues.
- Conduct research between product designers, manufacturers, and the waste industry to understand the waste profile of products, to manufacture with recycled content and to design products that are easy to repair and recycle, and preferences for manufacturing.

Key Findings: Hume Regional Engagement Program

The Hume region incorporates two Waste and Resource Recovery Group areas - Goulburn Valley and North-East (refer to Figure 1).

Background information provided

As noted in the Methodology, workshop participants were provided with a regional profile to assist their understanding of the demographic and economic drivers operating in the region, the current circular economy processes and current infrastructure.

The key points providing a regional context for the Hume workshops were:

- Second largest region, one of the fastest growing in the state driven by population growth in dispersed parts of the region (Shepparton, Mitchell, Wodonga).
- Population increases likely to lead to higher rates of recyclables and organics entering the system – opportunity for local industry to manage the material.
- Construction, agriculture and manufacturing have a strong local footprint. Food manufacturing accounts for 50% of total manufacturing value add.
- Roll out of recycling and organics bins has played a role in reducing residual waste generation.
- Of local kerbside commingled recycling, 66% is sorted outside the region.
- Organics collection rates are projected to rise with the introduction of the FOGO service.
- Current kerbside recycling throughput is less than the region's total MRF sorting capacity. MRF operator in Albury (NSW) currently servicing some Victorian councils.
- Local MRF operators and organics reprocessors manage material from other regions.
- The region's existing strengths and weaknesses and future challenges and opportunities were explored during the RCEP engagement program. The Hume region's existing strengths are in its strong manufacturing base and the supply of feedstock and demand for recycled materials. Because of this manufacturing base, there are excellent transport connections available to the circular economy. Future threats for the Hume region are its proximity to metropolitan areas, combined with pressure on the remaining available land due to population growth.

Discussed strengths and future opportunities

Participants nominated the following strengths and future opportunities for the Hume region:

- Existing materials recovery facilities and large capacity for organics processing.
- Strong multi-modal transport connectivity, proximity to Melbourne and access to the region to support collection, sorting, processing, and manufacturing precincts.
- Economic growth with a concentration of agriculture, construction and major food manufacturers aiding both supply of feedback (organics) and use of recycled materials (glass).
- Business growth from collaborative investment models: public private partnership, joint venture, small social enterprise.
- Benefit from the availability of land appropriately zoned for storing and processing recyclables.
- High uptake and participation rates of food and organics waste collection service, opportunity to increase to a weekly collection, and reduce general waste collection to a fortnightly service.

Discussed weaknesses and future threats

Participants nominated the following weaknesses and future threats for Hume region:

- Lack of local end markets and incentives, which discourages investment in resource recovery facilities or end-product manufacturing.
- Low economies of scale of some waste streams, transport costs and high relative costs of small processing facilities reduces cost effectiveness of recycling.
- Limited grant funding and support to innovate and deal with increased compliance complexity for council's direct involvement in sorting and processing.
- Recycling industry dominated by large enterprises where small materials recovery facilities become vulnerable to predation.
- Lack of legislation and incentive to encourage use of recycled content.

Regional aspirations and priorities

Increasing the value derived from a strengthened circular economy was further explored during the RCEP engagement program.

For the Hume region this was:

- Attracting new market entrants to the region, by promoting the strengths of the region, while growing export opportunities for reprocessed materials and products and local markets through government procurement policy.
- Recovering more waste from landfill, by expanding the collection of soft plastic and diverting construction and demolition waste to recycling processors through local collection points based on development phases.
- Aiding a change in community behaviour, to make it easier to use all parts of the system (avoid, reduce, reuse, and recycle), to change perceptions of waste, to resource or valuable commodity and encourage a sense of pride and ownership.
- Creating a resilient recycling system by growing adherence to and use of local recycling and reprocessing facilities and use of materials. Providing more educational pathways that support a strengthened circular economy system.
- Dedicating space for storage, reprocessing, and disposal, while providing a solution that supports the health of the environment and human population (reduced chance of fires, illegal dumping, and emissions).

To derive the full benefits from a strengthened circular economy, Hume's aspirations for 2030 are (in prioritised order):

1. Product stewardship.
2. Embedding best practice.
3. Social change.
4. Local solutions through collaboration.

These circular economy aspirations are described in further detail:

Product stewardship

In the Hume region, products and materials are created and priced with appreciation for their full lifecycle, we design and procure products that are easy to repurpose or recycle to be cost attractive for the consumer.

Priorities to achieve this:

- Implement regulations and incentives that encourage the use of reused, recycled, or reprocessed materials and products.
- Engage with industry and manufacturers to increase the percentage of recycled materials used and include the lifespan of the product on packaging.
- Develop standards and guidelines to support manufacturers to use materials that can be easily reused, repurposed, repaired and recycled.
- Undertake collaborative research between manufacturers, waste industry and regulators to design and produce products with an understanding of their full lifecycle.
- Advocate to reduce operational barriers for manufacturers and resource recovery managers.
- Support sustainable resource planning and design to ensure the longevity of materials for use in the construction and demolition industries.
- Incentivise retailers and manufacturers to facilitate take back programs or programs that provide refill opportunities for high volume products (cleaning products, personal care products included).
- Incentivise the use of the Australian Recycling Label for products sold and supplied within the Australian market to support the consumer to dispose and recycle the product thoughtfully.

Embedding best practice

In the Hume region, all levels of government, business, industry, education institutions, researchers, and community work to deliver shared local circular economy outcomes.

Priorities to achieve this:

- Invest in infrastructure, research, and processes for priority material streams (including plastic, timber, and construction materials) to reduce risk and ensure local collection, continuity, and supply of recycled or repurposed materials.
- Introduce legislation and explore price signals to proactively encourage waste avoidance, reuse, repurposing, and recycling of material streams.
- Set clear regional targets to divert resources from landfill, grow markets using recycled materials and reduce emissions to encourage a circular economy approach and investment.
- Invest in infrastructure and services to allow for the conversion of low value waste resources to energy.
- Support licensing, markets, and regulation to enable and encourage the production of processed organics to strengthen sustainable and regenerative agriculture practices.
- Engage in private-public partnerships that support innovation and fledgling markets to become established.
- Integrate the access to and use of renewable energy in infrastructure investment for processing, manufacturing, and transport of products.

Social change

In the Hume region, all sectors of our community as consumers make decisions that avoid the generation of waste, encourage the reuse and recycling of products to reduce their impact on the environment.

Priorities to achieve this:

- Develop an agreed strategy with targets between government and industry to encourage the use of recycled and repurposed materials over virgin materials.
- Promote behavioural change through consumer engagement campaigns to harmonise circular economy in everyday conversations and encourage avoidance, repair, reuse, and best practice recycling.
- Increase access to recycling services including municipal (glass or organics) and wider community services (e.g., RedCycle or E-Waste) to reduce contamination and increase recycled feedstock supply.
- Ongoing campaign to support waste education and the avoidance of unnecessary and/or non recyclable packaging and collective impact of changes (waste avoidance, impact on market).
- Support, promote and develop enterprises to encourage share, repair, and reuse in Hume.

Local solutions through collaboration

In the Hume region, we are sustainable, self-sufficient, and resilient to market changes, we collaborate to create and use local circular economy opportunities.

Priorities to achieve this:

- Collaborate with council, business industry and others to work on regional circular economy opportunities (e.g., hub and spoke model).
- Invest in local recovery hubs to encourage a decentralised approach and investment for managing materials.
- Support government policy and collaborative procurement and advocate for change to incentivise the use of local recycled materials and carbon offset requirements.
- Collect information in the region to confidently approach the market and support current organic processors in the region.
- Simplify funding application process and funding criteria to support local operators and solutions.
- Support the establishment of local take back programs to take unwanted goods with high reprocessing or recycling value.
- Establish a local concierge service to connect manufacturers, collectors, sorters, reprocesses and end markets with each other, to share data and understand capability, resource availability and material requirements.

Key Findings: Loddon Mallee Regional Engagement Program

Background information provided

As noted in the Methodology, workshop participants were provided with a regional profile to assist their understanding of the demographic and economic drivers operating in the region, the current circular economy processes and current infrastructure.

The key points providing a regional context for the Loddon Mallee workshops were:

- Population increases likely to lead to higher rates of recyclables and organics entering the system – opportunity for local industry to manage the material.
- Construction, agriculture and manufacturing have a strong local footprint. Growing opportunity for traditional industries to participate in a circular economy.
- Of local kerbside commingled recycling, 37% is sorted outside the region (lowest of all regions).
- Organics collection rates are projected to rise with the roll-out of the FOGO service.
- Local MRF operators and organics reprocessors manage material from other regions and sources.
- impacting their ability to manage locally-generated kerbside materials.
- Increase in glass processing capacity could enable more glass to be utilised by local offtake markets.

The region's existing strengths and weaknesses and future challenges and opportunities were explored during the RCEP engagement program. A strength of the Loddon region is in its existing trials, uptake of renewable energy along with land availability. The capacity of local government is both a current challenge and continued threat to strengthening the circular economy, many are feeling stretched, working to deliver necessary services in a rate constrained environment, meaning investment in the circular economy is likely secondary.

Discussed strengths and future opportunities

Participants nominated the following strengths and future opportunities for the Loddon Mallee region:

- Strong transport network connectivity between Victoria, New South Wales, and South Australia to move recyclables to processing facilities and products to end markets.
- Investment and trials are already underway to increase recycling rates and manufacturing's use of recycled content.
- Existing local educators providing training in skills required by new processing and manufacturing industries.
- Population growth will ensure the availability of recyclable materials and demand for products manufactured with recycled content.
- Sufficient land availability to co-locate sorting, processing, and manufacturing precincts, with enough of a buffer from residential growth.
- Cost of virgin materials is increasing, making the use of recycled materials more attractive.
- Reducing complexity in recycling organics to make it more attractive for farmer involvement.

Discussed weaknesses and future threats

Participants nominated the following weaknesses and future threats for Loddon Mallee region:

- Traditional metrics to evaluate investment business cases for waste and recycling infrastructure do not take into consideration the other social, environmental, and economic benefits.
- Low economies of scale of some waste streams and the high relative costs of small processing facilities reduce the cost effectiveness of recycling.
- Recycling costs are not factored into projects/products/materials and this disproportional cost profile discourages investment and uptake.
- Seasonality of some significant waste streams affects feedstock supply.
- Councils do not have the resources, capability, and capacity to approach resource recovery through a circular economy lens.
- Current council procurement preferences discourage the use of recycled materials and products.
- Grant funding is insufficient and/or not aligned to council budget timeframes to be useful for many recycling projects and trials.
- Tension between avoidance and waste generation as a resource, needs better clarity on future avoidance plans to give commercial operators confidence.
- Limited demand and end markets for the high volume of recyclable material.

Regional aspirations and priorities

Increasing the value derived from a strengthened circular economy was further explored during the RCEP engagement program.

For the Loddon Mallee region this was:

- Recovering more waste from landfill, by thinking beyond kerbside collection services to include collection of construction and demolition waste, eliminating use of products or materials without an end market e.g., application of the waste hierarchy.
- Aiding a change in community behaviour, to use all parts of the system (avoid, reduce, reuse, and recycle), some clothing considered to be fast fashion (inexpensive, poorer quality), creating a sense of ownership and reduction of contamination.
- Dedicating space for storage, reprocessing and disposal of construction and demolition waste, while providing a solution that supports the health of the environment and human population (reduced chance of fires, illegal dumping, and emissions).
- Bringing new market entrants to the region, to encourage investment in infrastructure and assist partnership opportunities to reduce costs, so as use of local recycled products and materials is more competitive.
- Creating a resilient recycling system through decentralised small-scale sorting and processing facilities, improving local waste separation and industry uptake of these process materials and products.

To derive the full benefits from a strengthened circular economy, Loddon Mallee's aspirations for 2030 are (in prioritised order):

1. Support for resource recovery managers.
2. Product stewardship.
3. Better use of plastic to support the circular economy.
4. Social change.
5. Regional circular economy reputation.

These circular economy aspirations are described in further detail:

Support for resource recovery managers

New entrants and existing resource recovery managers have transitioned from a waste to resource recovery focus.

Priorities to achieve this:

- Planned investment strategy that allows business, councils, researchers, and resource recovery operators to invest with confidence in the next 10 years, with a periodic review.
- Planned investment in processing and local feedstock storage facilities to take advantage of manufacturing potential and reinvest industry collected levies back into regional need.
- Work with local research and educational providers and industry to map current and predicted material availability and provide a brokerage service to businesses to stimulate demand for these materials.
- Undertake research and trials into innovative recovery solutions for commercialised outcomes, understanding the market opportunities, capabilities to support businesses to relocate or establish in the region.
- Facilitate a conversation between commercial and council operations to determine the drivers and priorities for waste management and end uses.
- Invest in initiatives to reduce the cost of transport, e.g., hydrogen powered trucks, cost sharing, moving freight onto rail, electrical vehicle, upgrade roads (the circular economy intent of this was questioned).
- Adapt grant funding rules to be more flexible, including grants to support projects that have already commenced.
- Incentivise set up costs through a scheme to recoup upfront capital costs through solar energy savings that are not dependent on transmission network upgrades.

Product stewardship

Products and materials are created within Loddon Mallee with an understanding of their lifecycle, they are easy to repurpose or recycle, retailers and manufacturers are accountable for the full product life.

Priorities to achieve this:

- Advocate for a change to government regulations to influence product design and manufacturing to encourage the avoidance, recycling and reuse of products and materials.
- Build-in pricing that factors in the whole of product lifecycle cost to incentivise the use of recycled products and materials, when taking a longer-term view.
- Support retailers and manufacturers to implement initiatives that encourage recycling, reuse, and repair of consumer products (including funding take back programs and regulation).
- Advocate for the development of standards to improve the design of products and opportunities to add value through recycling and reuse of materials.
- Conduct research between educators, manufacturers, and industry to understand the waste profile and potential uses for products.

Better use of plastic to support the circular economy

In the Loddon Mallee region, we actively avoid the use of plastic, when used we use recycled plastics, or easily recycled materials to keep plastic materials in the recycling loop.

Priorities to achieve this:

- Advocate for legislative change and support agriculture, manufacturers, and industry to avoid (single use) plastics, and where required preference the use of recycled plastics materials (e.g., ban plastic fruit labels, colour coding plant and plastic based plastics for sorting and separation and single plastics use).
- Invest in collection, reprocessing, and manufacturing technologies to improve access to collection services, and sorting and cleaning of commercial, commingled plastics, polystyrene, household soft plastics and agricultural plastics throughout the region.
- Attract and support plastic manufacturers that use recycled materials (e.g., Plastech) to establish in the region.
- Undertake coordinated research and development to identify alternative materials that retain higher value during the material life cycle and identify end use markets to increase demand for recycled plastic materials (e.g., showcase products and provide training in use).
- Share and promote the success of pilots and trials to encourage more uptake and innovation.
- Engage with residents about sorting of plastics and polymer types and recycling symbols to reduce contamination and increase collection.

Social change

In the Loddon Mallee region, consumers are equitably supported to engage in a circular economy system to avoid and maximise the reuse and recycling of products.

Priorities to achieve this:

- Establish partnerships between councils and industry to support trials of new recycled products.
- Deliver ongoing social marketing and behavioural campaigns involving councils, government agencies and industry associations to communicate the value of circular economy and show communities how to be a driving force for change, providing the public with a better understanding of the value and lifespan of all resources.
- Establish a program, coordinated between councils and other government agencies, to encourage communities to purchase good quality long term products or second-hand items.
- Deliver programs that are contextualised to the SEIFA index and characteristics of the region (e.g., look at best practice examples across energy and water sectors to apply to the waste industry including hardship grants and payment plan offerings).
- Establish an education and training program for consumers and business to support a transition to a circular economy to combat waste and climate change challenges and market development.
- Promote Sustainability Victoria's Buy Recycled directory for councils to encourage the use of recycled materials.

Regional circular economy reputation

Loddon Mallee has a state-wide reputation for design, manufacturing and use of recycled materials and products for the construction, agricultural and health sectors, a reputation the community prides itself on.

Priorities to achieve this:

- Undertake research with industry and industry associations to determine the factors that encourage new market entrants to establish in the region, particularly operators aligned to our environmental values (e.g., availability of staff and support services).
- Invest in pilot projects within regional centres to demonstrate local circular economy solutions and to promote the quality and range of recycled materials and product use.
- Partner with industry and education providers to create training pathways, and short courses to invite innovation and interest from outside the region.
- Introduce standards and set targets on the use of recycled materials and products within local government infrastructure contracts and construction industries.
- Investing in new circular economy alternatives for the recycling and treatment of contaminated soil and other hazardous waste that will help address historical land use issues in the region i.e., Contaminants such as arsenic, lead and asbestos.
- Explore opportunities to connect with Asia-Pacific countries to develop waste solutions across the region.

Regional Comparison

Following is a comparison across the RCEP engagement program from observed and expressed participant needs. This section is divided into three sections:

- Stakeholder potential: comparison of stakeholder priorities to strengthen or support their capacity to operate within a circular economy system.
- Regional comparison: comparison of the barriers and opportunities to explore across each region.
- Regional priorities: comparison of priorities across each region.

Stakeholder potential

Regardless of the region, each stakeholder group needs support to strengthen and participate in the circular economy system. Table 3 presents our analysis of stakeholder priorities common across the stakeholder groups from both stated and observed needs during the RCEP engagement program.

Table 3. Stakeholder priorities

Stakeholder	Priorities to strengthen participation
Businesses and business associations	• Simple access to dispose and recycle waste (collection service, product labelling). • Product alternatives (take back program, recycled componentry, second hand and share systems). • Incentives (financial and non-financial) to make change.
Commercial and industrial operators and industry associations	• Confidence to invest in infrastructure, programs, services, and regions (through government signals: financial commitment, procurement processes; access to markets, legislation). • Access to data to make investment decisions. • Simple access to dispose and recycle waste (collection service, product labelling).
Government agencies	• Data to understand policy, regulation, and infrastructure needs. • Policy and legislation to support the uptake of the circular economy system.
Local government	• Data to understand policy, regulation, and infrastructure needs. • Policy and legislation to support the circular economy system. • Funding to invest in infrastructure, services, or programs. • Best practice examples and support to innovate.
Researchers and educators	• Grants to invest in research, service trials and/or programs. • Collaboration opportunities to deliver circular economy priorities.
Residential community/ consumers	• Simple access to avoid, reuse, recycle and dispose of household waste correctly (collection service, product labelling). • Support (financial and non-financial) to make change. • Product alternatives (take back program, recycled componentry, second hand and share systems).
Social enterprises and incorporated committees	• Grants to invest in research, service trials and/or programs. • Collaboration opportunities to deliver on circular economy priorities. • Data on individual and collective impacts to understand needs (feedback on volumes, diversion).

Looking across the priorities in Table 4 - businesses, commercial operators, and manufacturers look to local and state governments for the confidence to know when to invest. Their confidence is affected by the action's government does or does not take. Actions that signal confidence and likewise their investment are:

- Investment in the region (infrastructure, economic attraction).
- Alteration of regulation (might make it easier or harder to establish).
- Alteration or adoption of procurement policy (spend and use of recycled or recyclable materials).

Local and state governments are reliant on industry partners for regional data, having access to this information allows them to make policy decisions and invest in infrastructure.

Stakeholders in need of funding (local government, researchers, educators and social entrepreneurs) need grant programs that offer flexibility in funding cycles and criteria to support innovation and the achievement of social and environmental outcomes.

Researchers, educators, and those working within a social enterprise model need collaboration opportunities and data on individual and collective impact, to know which elements of the circular economy system need strengthening, as well as the impact of their involvement.

Consumers (residential community and businesses) need a simple and accessible collection service, clear product labelling and product alternatives to make needed changes.

Likewise, when these stakeholders are supported, and their future potential is realised, they can help others within the circular economy system, as well as strengthen the system as a whole. Table 4 summarises both the role they can play to strengthen the system and support others. This feedback was received directly from focus groups and interview participants, and indirectly through our observation during the RCEP engagement program.

Table 4. Stakeholder potential

Stakeholder	Potential to strengthen the circular economy system
Businesses and business associations	• Participating in waste and recycling processes (aiding feedstock supply). • Purchasing and preferencing recycled products, and recycled content. • Bringing best practice examples and support to innovate.
Commercial and industrial operators and industry associations	• Collecting, sorting, processing and disposal for commercial waste streams. • Collaborating with manufacturers, product designers and government to design market ready products, systems, services. • Bringing best practice examples to support innovation. • Participating in waste and recycling processes (aiding feedstock supply). • Educating businesses/commercial operators. • Purchasing and preferencing recycled products, and recycled content. • Provision of data and information on collected and managed waste volumes.
Government agencies	• Introducing policy and legislation to support the circular economy system. • Funding to encourage investment in infrastructure, services, or programs. • Bringing best practice examples and support to innovate. • Bringing stakeholders together to innovate. • Regulating practices and operations.
Local government	• Supporting market entrants and circular economy uptake through procurement and policy. • Planning amendments for circular economy infrastructure uses. • Collecting, sorting, processing and disposal functions for household and (some) commercial waste streams. • Educating households and businesses. • Providing data and information about collected waste volumes. • Purchasing and preferencing recycled products, and recycled content.
Researchers and educators	• Collaborating to design products, systems, and services. • Creating educational pathways to strengthen circular economy uptake. • Carrying out research to understand stakeholders needs.
Residential community/ consumers	• Participation and adherence to the waste and recycling process (aiding feedstock supply). • Purchasing and preferencing recycled products.
Social enterprises and incorporated committees	• Collaborating to design products, systems, services (take back programs, recycling/repair hubs). • Providing education to the residential and business community. • Carrying out research to understand stakeholders needs.

With support businesses, commercial operators, and manufacturers can invest in infrastructure, create services and bring new products to the market to solve circular economy dilemmas.

Researchers, educators, and those working within a social enterprise model can create programs and services that strengthen uptake in consumer waste and recycling processes and create new products or programs to promote circular economy opportunities.

Regional priorities

Encouraging product stewardship programs through standardisation was a focus for more populated regions, or regions with higher manufacturing involvement: Barwon South West, Hume, and Loddon Mallee. Regions experiencing population growth were concerned with the availability of space, and ability to separate residential and industrial zoning.

Table 5 shows the common priorities across the five regions, many in response to the current conditions explored previously. These common priorities demonstrate some of the collective needs of regional Victoria for future exploration and joint investment.

Table 5. Common priorities across the five regions of regional Victoria

Priority purpose	Barwon South West	Gippsland	Grampians Central West	Hume	Loddon Mallee
Keep plastic materials in the recycling loop and invest in collection, sorting and washing infrastructure while we transition use of plastics out of society	✓	✓	✓	✓	✓
Undertake research to understand how to support new and existing market entrants	✓	✓	✓	✓	✓
Make it easier for consumers (community and business) to avoid, reuse, recycle and dispose of items	✓	✓	✓	✓	✓
Introduce policy to incentivise the uptake and use of recycled and recyclable materials	✓	✓	✓	✓	
Educational pathways to support uptake of a career in circular economy	✓	✓	✓		✓
Product stewardship programs to incentivise manufacturers and resellers to collect, repair and/or recycle	✓		✓	✓	✓

Make it easier for organics to be processed and products to be used commercially and privately	✓	✓	✓	✓	
Develop consistent standards, guidelines, and legislation to encourage product designers and manufacturers to meet circular economy objectives	✓	✓		✓	✓
Invest in storage facilities to support feedstock collection and storage	✓	✓			✓
Community education and training for consumers to transition to a circular economy	✓	✓		✓	✓
Offer renewable energy incentives to support market entrants with the cost of operation and reduction of carbon emissions	✓		✓	✓	
Co-locate resource recovery and manufacturing processes to make it easier and more affordable to operate		✓	✓		
Make it easier to access funding for projects in their testing/pre-feasibility stage		✓			✓
Communicate local circular economy outcomes to promote and celebrate collective impact and aid motivation	✓				✓

Engagement Program Evaluation

This section analyses the engagement program's measures of success including participant feedback.

Evaluation of the engagement program

Evaluation measures for the RCEP engagement project were discussed and agreed on during the planning phase of the project. Process and impact measures have been used at this stage, with outcome measures to be developed later once the RCEPs have been written and endorsed. The process and impact measures and the results are shown in Table 6.

Workshop registrations on average exceeded the target in three of the five regions, with the exceptions being Loddon Mallee and Grampians Central West. However, participants' registrations did not neatly translate to actual attendances, with attendances generally about 50% of registrations. Registered participants were given at least two email or SMS reminders, however many cited illnesses in their household (usually COVID) or a lack of time or competing priority for the project.

In terms of stakeholder diversity 64% of attendees came from local government, over the target of 50%, 41% non-government (industry, educators, manufacturers) and 9% state government (Victorian Government, government agencies). Two councils did not participate in any of the workshops - one from Loddon Mallee region and one from the Hume region.

On most measures, there was a self-reported increase in understanding of regional priorities and connection to Council and industry stakeholders, and increased knowledge of partnership opportunities between participants. Following the workshops, most stakeholders felt comfortable contributing to the discussions and articulating their organisation's perspective (39% strongly agreed, 52% agreed).

Table 6. Process and impact measures and results

Engagement Activity	Measure (Target)	Result
Workshop interest for each RCEP Development Program	Number of registrations (45)	Total registrations = 250 Hume average = 52 Loddon Mallee average = 41 Grampians CW average = 36 Gippsland average = 46 Barwon SW average = 53
Workshop participation for each RCEP Development Program	Number of participants at each workshop (35)	Hume average = 26 (W1: 31, W2: 31, W3:17) Loddon Mallee average = 18 (W1:17, W2:21, W3:1 Grampians average = 16 (W1: 16, W2: 18, W3:14) Gippsland average = 18 (W1:15, W2:26, W3:11) Barwon SW average = 24 (W1: 23 W2: 27, W3:20)
Diversity of stakeholders contributing to the priority setting for RCEPs	50% Council officers, remainder State Government and industry	Pre-workshop survey showed intention to attend workshops from local government officers (56%), (41%) industry associations (3%) state government. Actual Workshop participation: 41% Industry, 64% Council officers, 5% State Government.

Increased understanding of regional priorities and connection to Council and industry stakeholders	Increase in knowledge by participants and enhanced relationships (target is to increase understanding)	Good understanding of different stakeholders in the region - pre-workshop 75%, post-workshop 85% Good understanding of waste and recycling priorities for the region - pre-workshop 53%, post-workshop 75%
Identification of local circular economy priorities, investment and research needed to advance waste and recycling innovation in the regions that are supported by feedstock supply	Records/outputs from workshops	Priorities for each region articulated in this engagement report under regional aspirations and priorities sections
Project team has an increased knowledge of barriers to commercial entry and support needed to service or establish an operation within the regions	RCEP identifies and addresses barriers	Assessment of draft RCEP against Workshop records - to be determined by DELWP project team.
Increased knowledge of partnership opportunities between participants	Increase in partnership strength	Good understanding of future opportunities for recycling partnerships: Pre-workshop 44%, post-workshop 69%. Different stakeholders can work together to produce an agreed list of recycling priorities: Level of agreement pre workshop 85%, post-Workshop 81%. Need for different stakeholders to collaborate: Level of agreement pre-workshop 95%, post-Workshop 94%.
Workshop participant satisfaction	80% continued participation Participant rating of opportunity to contribute	Of the 111 organisations that registered to participate in the RCEP Workshop program, 47 (40%) attended all eligible workshops; 23 (20%) attended two workshops; 36 attended one workshop (31%) and four did not attend any workshops. A small number of businesses attended some or all the regional workshops from the one stage. Participant ratings post-workshops: Felt comfortable contributing to the discussions and articulating their organisation's perspective - Strongly agree 39%, Agree 52%, Not sure 4%, Disagree 6%.

Participant evaluation

Participants that registered for the workshop component of the RCEP engagement program were encouraged to complete a pre- and post-workshop survey to identify any desired changes in their understanding of the circular economy and regional priorities, and their attitudes towards forming partnerships and collaboration.

As a result of their participation, positive change in understanding and attitudes were reported by participants on the following attributes:

Better understanding of Victorian Government policies about the circular economy

69% of survey respondents pre-workshops, increasing to 75% post-workshops.

Better understanding of different stakeholders in this region

75% of survey respondents pre-workshops, increasing to 85% post-workshops.

Better understanding of waste and recycling priorities for their region over the next ten years

53% of survey respondents pre-workshops, increasing to 75% post-workshops.

Better understanding of the future opportunities for recycling partnerships across this region

44% of survey respondents pre-Workshops, increasing to 69% post-workshops.

Pre-participation reflections

Prior to workshop 1, 59 participants completed a pre-workshop survey from a registration list of 100 (workshop 1 only). Survey respondents were asked to rate their understanding of various issues, their understanding of the stakeholders in their region and their level of confidence to work together to produce an agreed list of priorities.

Most participants agreed that they had a good understanding of their own organisation's future strategic priorities regarding waste and recycling (86%) and the circular economy goals (83%). However, a smaller percentage felt they had a good understanding of the Victorian Government policies about the circular economy (69%).

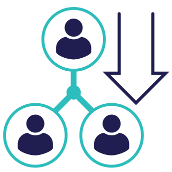
Comparing the local government stakeholders with the state government stakeholders, both equally agreed (88%) that they had a good understanding of their own organisation's future strategic priorities regarding waste and recycling. More state government stakeholders (88%) agreed that they had a good understanding of the circular economy goals, compared to local government stakeholders (79%). Similarly, more state government stakeholders (79%) agreed that they had a good understanding of the state government policies about the circular economy, compared to local government stakeholders (64%).

Almost all stakeholders agreed there was a need for the different stakeholders in their region to collaborate to deliver on the circular economy goals (95%) and that different stakeholders in their region could work together to produce an agreed list of recycling priorities (85%). Figure 9 shows participant reflections on the need for the RCEP process.

Most stakeholders (75%) reported they had a good understanding of the different stakeholders in their region - councils, state government, and industry. As expected at the pre-workshop stage, smaller percentages of stakeholders had a good understanding of the waste and recycling priorities for their region, or a good understanding of the future opportunities for recycling partnerships across their region.

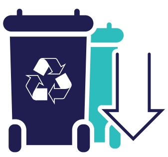
Comparing the government stakeholders, more local government stakeholders (97%) agreed that there was a need for the different stakeholders in their region to collaborate, compared to state government stakeholders (92%). Slightly more local government stakeholders (85%) agreed that the different stakeholders in their region could work together to produce an agreed list of recycling priorities, compared to state government stakeholders (83%).

The benefits for local government of participating in the RCEP Workshops was apparent with:



Fewer local government stakeholders reporting they had a good understanding of the different stakeholders in their region

67% local government, 88% state government.



Fewer local government stakeholders reporting they had a good understanding of the waste and recycling priorities for their region

49% local government, 58% state government.

An equal percentage of local government and state government stakeholders (46%) agreed they had a good understanding of the future opportunities for recycling partnerships across their region.

Reflections on Workshop 1

As part of the first series of workshops, participants were invited to provide feedback on both the positives and any areas for improvement. Positive aspects of the workshops were the facilitated breakout rooms that were adaptable and provided opportunities for feedback and active participation, the use of online tools to support discussion and visually represent ideas and the opportunity for breaks and refreshments. Potential improvements identified were involving other community groups or organisations (universities, CSIRO, economic development), more clarification of the session's intended outcomes, more information on community needs and barriers to participation and pre-workshop collation of selected information.

Post participation reflections

As previously noted, workshop participants were encouraged to complete a post-workshop survey to identify any desired changes in their understanding of the circular economy and regional priorities, and their attitudes towards forming partnerships and collaboration. Overall, 52 stakeholders responded from the registration list of 111 stakeholders.

Positive change in understanding and attitudes were reported by the stakeholders on the following attributes:

Better understanding of Victorian Government policies about the circular economy:

69% of survey respondents pre-workshops, increasing to 75% post-workshops.

Better understanding of different stakeholders in this region:

75% of survey respondents pre-workshops, increasing to 85% post-workshops.

Better understanding of waste and recycling priorities for their region over the next ten years:

53% of survey respondents pre-workshops, increasing to 75% post-workshops.

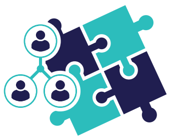
Better understanding of the future opportunities for recycling partnerships across this region:

44% of survey respondents pre-workshops, increasing to 69% post-workshops.

However, some attributes saw either a minimal decrease or stability as reported by the stakeholders

Agreement that the different stakeholders in their region can work together to produce an agreed list of recycling priorities

85% compared to 81%.



Agreement that there is a need for the different stakeholders in this region to collaborate to deliver on the Circular Economy Goals

95% compared to 94%.

Reflecting on their experience, 90% of stakeholders agreed that they “felt comfortable contributing to the discussions and articulating my organisation’s perspective” with a smaller percentage disagreeing (6%) or being “not sure” (4%).

The experience of the RCEPs process differed according to the sector (government, non-government). Table 7 shows the differences between the stakeholder sectors regarding their assessments of their own understanding and attitudes towards working together.

Table 7. Post participation reflections - comparison between sectors

Measure	Local government	State Government	Industry Accociation	Business*
Good understanding of Victorian Government policies about the circular economy	74% agreement	69% agreement	**83% agreement**	80% agreement
Good understanding of the different stakeholders in regions	84% agreement	**88% agreement**	75% agreement	100% agreement
Good understanding of the waste/recycling priorities for regions	74% agreement	75% agreement	75% agreement	80% agreement
Good understanding of future opportunities for recycling partnerships	**74% agreement**	63% agreement	58% agreement	100% agreement
Different stakeholders can work together to produce an agreed list of recycling priorities	74% agreement	**88% agreement**	83% agreement	80% agreement
Need for different stakeholders to collaborate to deliver circular economy goals	90% agreement	**100% agreement**	92% agreement	100% agreement

**Note: Interpret with caution, very small sample (n=5)*

Program recommendations

The RCEP engagement program has enabled a broad conversation on the circular economy priorities amongst regional participants who will collaborate to make the circular economy come to life in their region. Following are our recommendations based on delivery of the RCEP engagement program and analysis of the information. We acknowledge that our expertise lies in stakeholder engagement and social research, and not in the technical application of circular economy initiatives.

Process recommendations

R1 Keeping participants informed on engagement outcomes: the information loop is currently open; participants have shared their ideas and their feedback through the engagement process and are waiting to see what happens next. Ways to keep participants informed:

- Issue a statement from the Victorian Government, thanking participants for participating in the project and for sharing their ideas. Advise participants of next steps and plans for consultation.
- Consider ways you can share data related to the regions, collected through this process. As an example, a snapshot of the engagement data and findings from the regional engagement (participation, regional findings, and interviews).
- Providing participants with an opportunity to provide comments on the draft RCEP for each region, with the option of viewing other regional plans for interest only.

RCEP development recommendations

R2 Align this work to existing policy: participants brought their expertise of regional needs, this should be viewed alongside other state-wide research, including Infrastructure Victoria's Advice on Recycling and Resource Recovery Infrastructure (IV,2020) and the circular economy policy. Along with an understanding of priority materials that need to be addressed ahead of other materials.

R3 Invite expressions of interest to deliver each RCEP: implementation of the RCEPs was not discussed during the RCEP engagement program. Consider ways to create this ownership:

- Leverage existing networks or committees already working to enhance their regions.
- Seek expressions of interest from participants to help with implementation, coordination.

RCEP implementation recommendations

R4 Demonstrate commitment in action: a minor criticism expressed by some participants was that plans and studies like this had 'sat on the shelf' with implementation and benefits not filtering back into the regions. Find immediate ways to deliver each of the RCEP, even if minor in terms of investment or implementation, communicate these changes back to participants, and connect back to their involvement within the RCEP.

R5 Prioritise recommendations with joint benefit: consider implementing common priorities first, where four or more of the regions identified the same priority (refer to Table 4).

Education recommendations

R9 Broaden understanding and reach of program: understanding of Government policies about circular economy improved because of this process. Consider ways to communicate the circular economy policy and its practical application alongside implementation of the RCEPs.

R10 Share stakeholder needs and roles: understanding of stakeholder roles and needs within a circular economy system improved because of participation in this program. Consider ways to bring both the needs and role of stakeholders to the attention of others alongside implementation of the RCEPs.

Further engagement recommendations

R6 Engage with Traditional Owners and First Nation Peoples: in-depth consultation with Traditional Owners and First Nation Peoples was not conducted as a separate task within this project. Consider ways to engage with regional representatives during the testing or implementation of the RCEPs.

R7 Engage with commercial and industrial (C&I) stakeholders: waste from C&I activities is a priority for regional areas experiencing high population growth and therefore increased construction. Carryout additional research with larger developers to understand their potential and desire to be involved in regional circular economy initiatives. Particularly within Hume, Barwon South West and Grampians Central West.

R8 Engage with organics stakeholders: waste from organics was a priority for four of the five regions. Additional research may be needed to understand the infrastructure requirements, process, or regulatory requirements to support end market uses. Stakeholders from food manufacturing industries and/or agriculture were not represented within this process.

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Glossary

Term	Definition
Circular economy	A circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products as long as possible.
Community	A group of people who live in the same geographical area or have a shared background, interest, affiliation, or membership.
Stakeholders	Individuals or organisations, which affect, or can be affected by project decisions. Organisations can include not-for-profit and community-based groups, business and industry, and volunteer networks. They may also include other departments or agencies across federal, state and local government.
Waste and Resource Recovery Group (WRRG)	A state government appointed group, with a legislative responsibility to develop Regional Waste Resource Recovery Plans (RWRRIPs) to set out how the waste and resource recovery needs of their region will be met over a 10 year period.

Appendices

Appendix 1
Local government areas within RCEP regions

Regional grouping is based on the Waste and Resource Recovery Group (WRRG) boundaries.

Regional clusters based on Waste and Resource Recovery Groups.

Listed are the local government areas and authorities contained within each region.

Barwon South West

This region is situated south west of Melbourne and includes the local government areas of City of Greater Geelong, Borough of Queenscliff, Surf Coast Shire, Colac Otway Shire, Corangamite Shire, Moyne Shire, Warrnambool City, Southern Grampians Shire, and Glenelg Shire. With regional centres Geelong, Warrnambool and Portland servicing these regional populations.

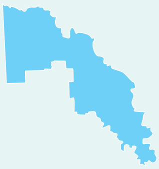
Gippsland

This region is situated east of Melbourne and includes the local government areas of Bass Coast Shire, Baw Baw Shire, East Gippsland Shire, Latrobe City Council, South Gippsland Shire, and Wellington Shire. With regional centres Traralgon, Moe and Morwell servicing these regional populations.

Hume

This region is situated north east of Melbourne and includes Alpine Resorts along with the local government areas of Greater Shepparton City, Mitchell Shire, Moira Shire, Murrindindi Shire, Strathbogie Shire, Alpine Shire, Benalla Rural City, Campaspe Shire, Indigo Shire, Mansfield Shire, Towong Shire, Wangaratta Rural City and Wodonga City. This region stretches from Melbourne's peri-urban fringe to the banks of the Murray River and across the edge of the Victorian and New South Wales border.

Loddon Mallee



This region is situated north west of Melbourne and includes the local government areas of Campaspe Shire, Central Goldfields Shire, City of Greater Bendigo, Loddon Shire, Macedon Ranges Shire, Mount Alexander Shire, Mildura Rural City, Swan Hill Rural City, Gannawarra Shire and Buloke Shire. The region stretches from the Melbourne north-west peri-urban region to the banks of the Murray River, across to the New South Wales border to the north and South Australian border to the west.

Grampians Central West

The region is situated in north west of Victoria and includes the local government areas of Hindmarsh, Horsham, Northern Grampians, West Wimmera, Yarriambiack, Ararat, Ballarat, Golden Plains, Hepburn, Moorabool, and Pyrenees Shires. With regional centres Horsham, Ballarat, Ararat, Daylesford servicing these regional populations.

Appendix 2
Organisation participation across the RCEP Engagement Program

Organisation	Type	Workshop	Regional Forum	Interview
Albury City Council	government	✓		
Alpine Shire Council	government	✓		
Anvarta	non-government	✓		
Ararat Rural City Council	government	✓		
AusIndustry/AiGroup	non-government	✓		
Austeng	non-government	✓		
Australian Industrial Hemp Alliance Inc	industry association	✓		
Advanced Manufacturing Growth Centre	industry association			✓
Australian Biofert	non-government			✓
Australian Packaging Covenant Organisation	industry association			✓
Ballarat City Council	government	✓		
Barwon South West Waste & Resource Recovery Group	government	✓		
Barwon Water	government	✓		
Bass Coast Shire Council	government	✓		
Baw Baw Shire Council	government	✓		
Be Bendigo (Bendigo Business Council)	industry association	✓	✓	
BioGro Pty Ltd	non-government			
Bio Mix	non-government			✓

Boral Cement	non-government	✓		
Borough of Queenscliffe	government	✓		
Buloke Shire Council	government	✓		
Campaspe Shire Council	government	✓		
Central Goldfields Shire Council	government	✓		
Central Highlands Integrated Water management (IWM)	government	✓		
City of Greater Bendigo	government	✓		
City of Greater Geelong	government	✓		
City of Wodonga	government	✓		
Cleanaway	non-government	✓		
Close the Loop	non-government			✓
Colac Otway Shire	government	✓		
Coliban Water	government	✓		
Commerce Ballarat	industry association		✓	
Committee for Gippsland	industry association	✓		
Corangamite Shire Council	government	✓		
Corio Waste Management	non-government	✓		
Dasma	non-government		✓	
Department of Environment, Land, Water and Planning	government	✓		
Department of Jobs, Precincts and Regions/Regional Development Victoria	government	✓		
East Gippsland Shire Council	government	✓		

East Gippsland Water	government	✓		
EcoWaste	non-government	✓		
Envirostream Australia	non-government	✓		
Expanded Polystyrene Industry Association (EPSA)	industry association	✓		
Food and Fibre Gippsland	industry association	✓		✓
Foott Waste Solutions	non-government	✓		
Gaia Envirotech/Gekko Systems	non-government		✓	
GDP Industries	non-government			✓
Geelong Chamber of Commerce	industry association		✓	
Geelong Manufacturing Council	industry association	✓	✓	
Geelong Sustainability	industry association	✓		
Gippsland Regional Organics	industry association	✓		
Gippsland Water	government	✓		
Glenelg Shire Council	government	✓		
Golden Plains Shire Council	government	✓		
Goulburn Broken Catchment Management Authority	government	✓		
Goulburn Valley Water	government	✓		
Goulburn Valley Waste and Resource Recovery Group	government	✓		
Grampians Central West Waste and Resource Recovery Group	government	✓		
Greater Shepparton City Council	government	✓		
Green Lab Futures	non-government	✓		

Greenchip Recycling	non-government	✓	
Hepburn Shire Council	government	✓	
Hindmarsh Shire Council	government	✓	
Horsham Rural Council	government	✓	
Indigo Shire Council	government	✓	
Integrated Recycling Pty Ltd	non-government	✓	
JJ Richards Waste and Recycling	non-government	✓	✓
La Trobe University Bendigo	non-government	✓	✓
Latrobe City Council	government	✓	
Latrobe Valley Authority	government	✓	
Loddon Mallee Shire	government	✓	
Loddon Mallee Waste and Resource Recovery Group	government	✓	
Macedon Ranges Shire Council	government	✓	
Mansfield Shire Council	government	✓	
Metropolitan Waste and Resource Recovery Group	government	✓	
Mildura Regional Development	industry association	✓	
Mildura Rural Council	government	✓	
Mitchell Shire Council	government	✓	
Moira Shire Council	government	✓	
Moorabool Shire Council	government	✓	
Mount Alexander Shire Council	government	✓	

Moyne Shire Council	government	✓		
Murrindindi Shire Council	government	✓		
National E-Waste Alliance	non-government	✓		
Nexsys Industries	non-government	✓	✓	
North East Waste and Resource Recovery Group	government	✓		
Northern Grampians Shire Council	government	✓		
Opal Australian Paper	non-government	✓		
PFG Group	non-government			✓
Plasgain	non-government		✓	
Primaform	non-government	✓		
Plastic Forests	non-government			✓
Pro-Pac Packaging	non-government	✓		
Regional Development Victoria	government	✓		
Regina Glass Fibre	non-government	✓		
Regional Innovation for a Circular Economy Inc.	industry association	✓	✓	✓
Repeat Plastics Australia Pty. Ltd.	non-government	✓		
Resource Recovery Gippsland	industry association	✓		
RM Consulting Group	non-government		✓	
RPM Pipes	non-government	✓		✓
Rural City of Wangaratta	government	✓		
Scipher Technologies Pty Ltd	non-government	✓		

Solar Victoria	government	✓		
Social Enterprise Network Victoria	industry association			✓
South Gippsland Shire Council	government	✓		
Southern Grampians Shire Council	government	✓		
Society of Plastic Engineers	industry association	✓		
St Vincent de Paul	non-government	✓		
Surf Coast Shire	government	✓		
Sustainability Victoria	government	✓		
Swan Hill Rural City Council	government	✓		
Tambo	non-government		✓	
Tetra Pak	non-government	✓		✓
The Agri Collective	industry association	✓		
The Gordon Institute	non-government	✓		
Towong Shire Council	government	✓		
Van Schaik's Bio Gro	non-government	✓		
Visy	non-government			✓
Vitae Capital	non-government	✓		
Wodonga City Council	government	✓		
Wannon Water Management	government	✓		
Warrnambool City Council	government	✓		
Wellington Shire Council	government	✓		

West Wimmera Shire Council	non-government	✓
Western Composting Technology	non-government	✓
Yarriambiack Shire Council	government	✓

Appendix 3
RCEP Workshop Program

Regional Profile provided to workshop participants

- Recycling Victoria goals
- Regional Recycling Fund
- RCEP scope
- Circular Economy Hierarchy

- Demographic overview
- Employment & economic overview
- Current kerbside generation & flows
- Current infrastructure

- Recommended & funded infrastructure
- Councils' priorities
- Opportunities - for discussion

Workshop 1 Project introduction and regional influences

Week commencing 4 April – 15 April 2022

Purpose: Introduce the policy setting for the project and expected outcomes. Work with representatives from regional Councils and government agencies to explore the current state of the circular economy in each region, including the strengths, weaknesses, opportunities, and threats that may influence each region's ability to strengthen circular economy outcomes and opportunities.

Stakeholders: Local government and government agencies.

Workshop 2 Regional aspirations and priorities

Week commencing 2 May – 13 May 2022

Purpose: Bringing in representatives from business, industry, and social enterprise to further inform our regional understanding. With all stakeholder representatives present, creating regional aspirations for what could be achieved through a circular economy approach and the priorities to achieve these aspirations.

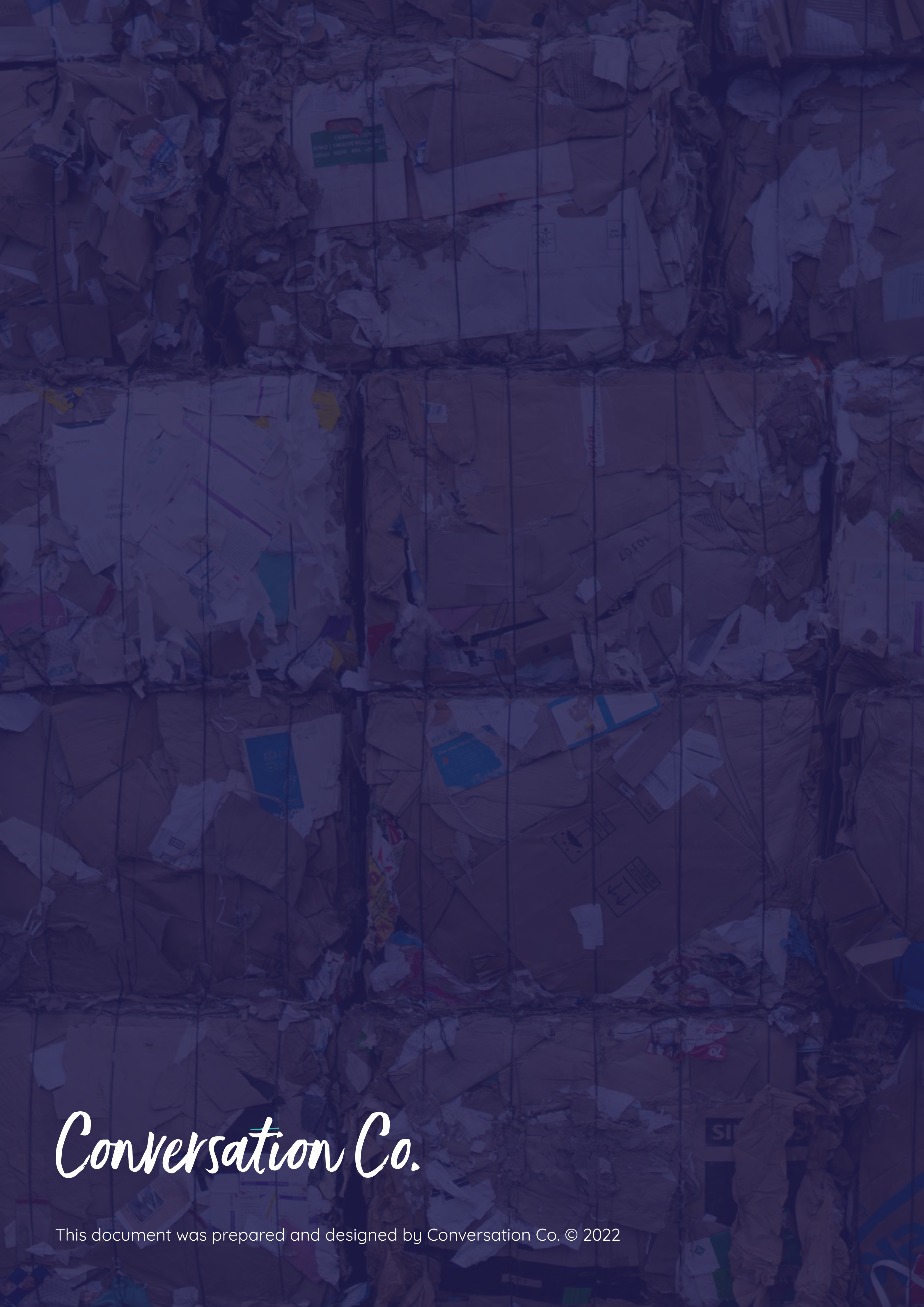
Stakeholders: Local government, government agencies, commercial operators and industry associations within waste, recycling, and manufacturing; social enterprises and incorporated committees; and local research and education providers.

Workshop 3 Strengthening the draft aspirations and priorities

Week commencing 13 June – 27 June 2022

Purpose: Review aspirations and priorities created in workshop 2 and refine each upon reviewing additional information collected through industry interviews, regional forum, and participant feedback. As a group, prioritise the aspirations and priorities for inclusions within each RCEP.

Stakeholders: Invitation to those that had participated previously in Workshop 1 or 2.



Conversation Co.