

Collaborate to Thrive

City of Casey

Strategic Opportunities Paper



Acknowledgements

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Circular Economy Victoria acknowledges the living connections of the Bunuroung Boon Wurrung and Wurundjeri Woi Wurrung peoples to the lands and waters of the Eastern Kulin Nation. We pay our respect to their Elders past, present and emerging.

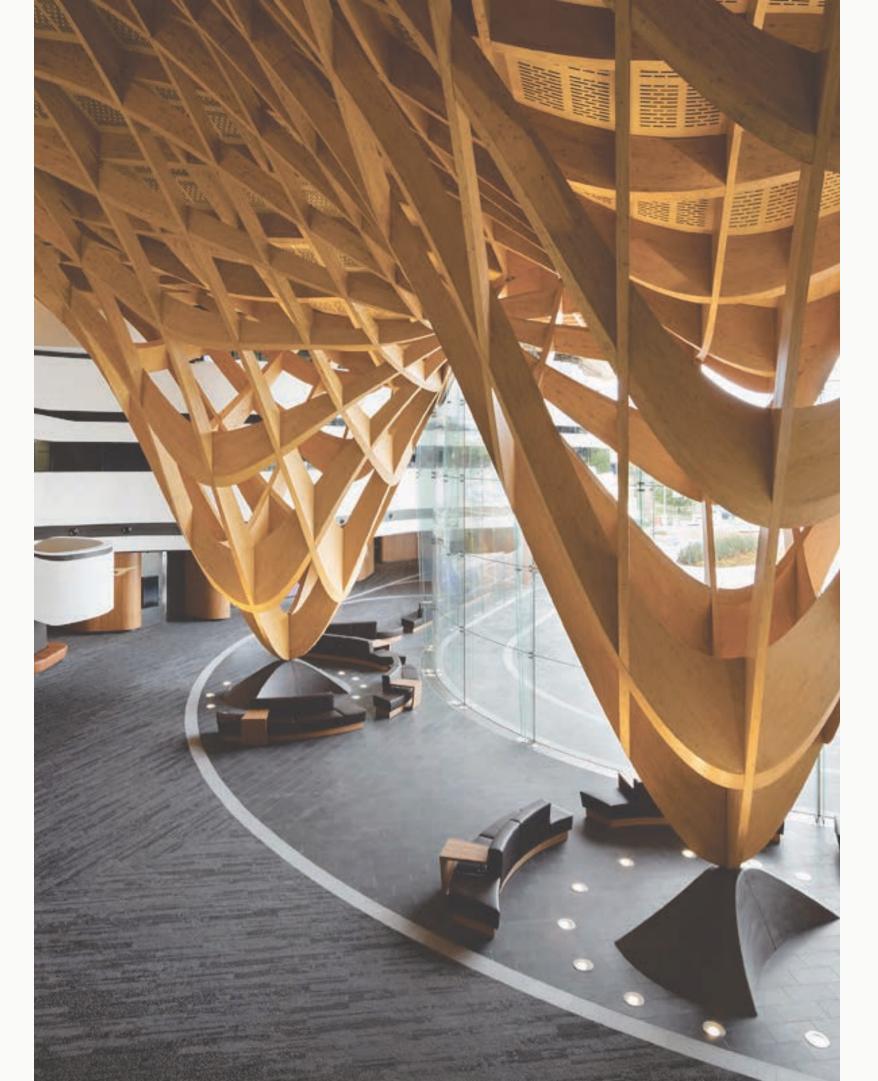




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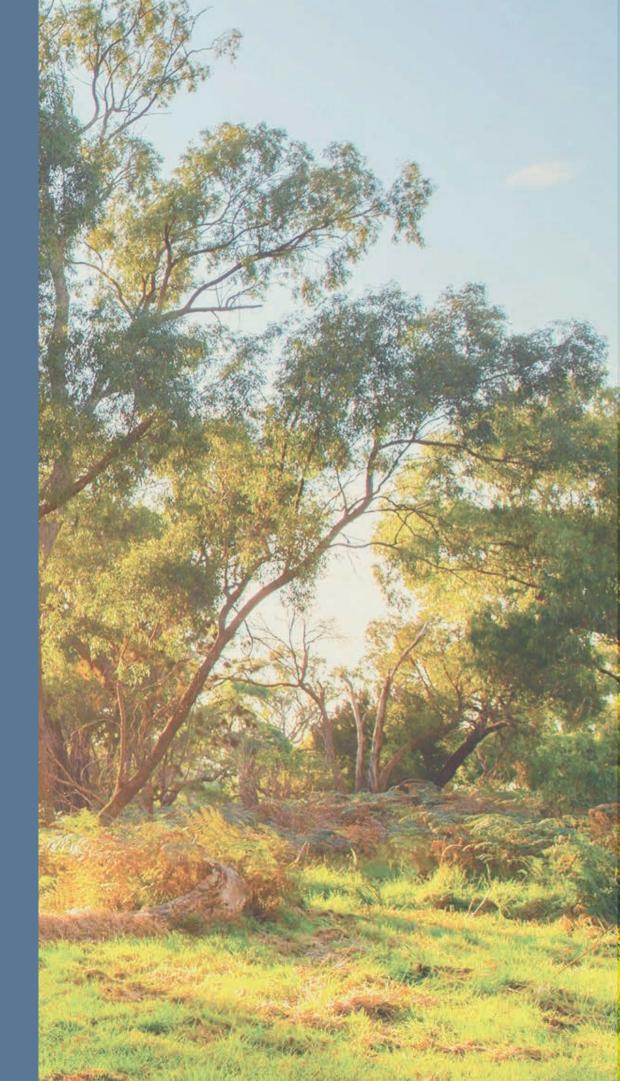
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Executive Summary

As one of Australia's most diverse and fast growing communities, the City of Casey has a need to understand how the circular economy can support sustainable growth. The City of Casey is in a very strong position to deliver strong circular economy outcomes for its community, as well as serve as a leader in Melbourne South East's transition towards a more circular economy. Casey has a strong culture of innovation that is supported by an outcomes based work ethic and supportive management. Councils Integrated Strategic Planning Framework provides a strong holistic foundation for a local circular economy ecosystem to thrive.

Becoming a circular city aligns with Casey's vision of becoming a more connected, bold and resilient. city. The circular economy principles offers both environmental benefits through the **elimination** of waste and pollution and the **regeneration** of natural systems, as well as significant economic benefits obtained through the retained **circulation** of products and materials within the economy for longer. KPMG identified a \$26 billion dollar opportunity and job creation for Australia through the circular economy.

Collaborate to Thrive is a social innovation program designed to help catalyse the conditions needed for a local circular innovation ecosystem to thrive. The program delivers a selection of engagements in close collaboration with a Local Government Area (LGA) and local industry and community partners. The program works to catalyse new circular economy initiatives and compound the impact of existing initiatives, in order to strengthen and support the local transition towards a more circular economy.

The City of Casey worked with Circular Economy Victoria to create a strategic opportunities paper through the Collaborate to Thrive program. With strong engagement across a range of sectors and community groups, a set of recommendations were developed to support the continued collaborative exploration of circular initiatives within the City. Further, mapping of strategies within Casey uncovered strong alignment in the Economy Development, Infrastructure, and Environment Domain Strategies. Circular economy is also a key objective in the Smart Casey Launchpad which has provided a cross departmental platform for the circular economy to be practically explored by both internal team members and external partners.

These strategic documents have a range of threads that weave together a circular economy roadmap for the City of Casey. The purpose of this report is to identify the key opportunities and to develop a pathway for Casey to activate key opportunities in the circular economy space. It explores applications of circular economy principles through pathways and partnerships to ensure positive social, environmental and economic outcomes in Casey and beyond.

CE Principles



ELIMINATE Waste & Pollution

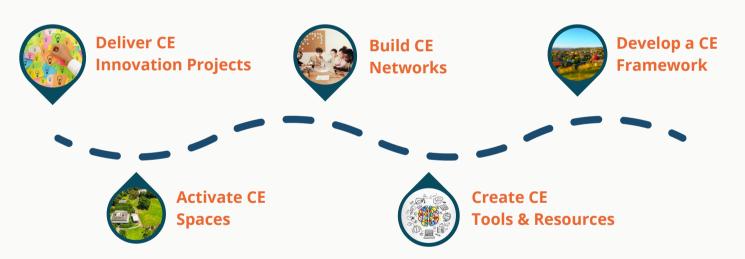


CIRCULATE **Products & Materials** (at their highest value)



REGENERATE Natural Systems

CE Pathways



CE Partners



Government



Industry



Non-Profits & **Academia**



Community Members

Background

The Case For Change

Cities, being the centres of human activity, are in a prime position to capitalise on the transition towards a circular economy. The circular economy principles provide a practical framework for cities to trial and validate systemic innovations to address complex problems. It aims to find solutions at the intersection of societal needs, economic growth, and environmental regeneration imperatives such as primary resource shortages, food security, water scarcity, biodiversity loss, energy transitions and greenhouse gas emissions.

As one of the fastest-growing and diverse communities in Australia, The City of Casey recognises the need for circularity across the city. The City of Casey has a population of 380,531 residents (2021), and prior to the COVID-19 pandemic, this was forecast to grow to approximately 550,000 residents by 2041. The Casey region covers an area of 400 square kilometres which includes culturally and environmentally significant land, as well as resident, farming, industrial, and commercial land.

Casey's vision is to become a more connected, bold and resilient community. In 2020, during the Shape your City engagement program, The City of Casey surveyed over 6,600 residents and collaborated with local community groups to understand emerging economic, social and environmental challenges. The engagement outcomes informed the Council Plan 2021-2025, a strategic document with clear objectives for sustainable economic development, social innovation and environmental restoration. Supporting this document are 4 Domain Strategies which highlight the areas of Economic Development, Infrastructure, Health and Wellbeing, and Environment that will accelerate actions towards Council's vision.

Recognising the importance of innovation, collaboration and sustainability to meet these long-term strategic goals, Casey's council strengthened its approach with the Smart Casey Launchpad, a strategic program for community members, partners and businesses to drive collaborative innovation to solve long-standing challenges. The importance of Circular Economy in Casey's pathway to becoming a Smart City was identified both by the council and the community as a way to ensure sustainable growth and provide new economic opportunities,

Activating the Circular Economy in Victoria

The Victorian Circular Activator (VCA) was established through funding from the Recycling Victoria Innovation Fund as part of the Circular Economy Business Innovation Centre (CEBIC). This physical innovation hub aims to help activate the transition towards a more circular economy through a combination of applied research, activation programs, and annual circular economy innovation showcases.

The VCA is a collaboration between RMIT University, RMIT Activator, Circular Economy Victoria, Swinburne University, the Australian Circular Economy Hub, and CEBIC. The first two years of the collaboration will see the VCA deliver a suite of innovative initiatives that work to strengthen the foundation of the circular economy innovation ecosystem within Victoria.

The City of Casey's Collaborate to Thrive program is the first of seven activation programs that will be delivered between July 2021 and June 2023.



Introduction

Circular Economy (CE)

The circular economy is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It aims to transform the current linear economic model of take, make, and waste into a circular economic model where systems are designed to:

- eliminate waste and pollution
- circulate products and materials within the economy at their highest value and utility for as long as possible
- regenerate nature at end-of-life

In short, the circular economy provides a regenerative model for us to meet societal needs within planetary boundaries.

The Ellen MacArthur Foundation put forward the following three key principles that are driven by design and are what underpin the transition towards a more circular economy:



ELIMINATE Waste & Pollution



CIRCULATE **Products & Materials** (at their highest value)



REGENERATE Natural Systems

Recycling Victoria: A New Economy

The Victorian Government made a commitment to accelerate the transition towards a more circular economy, by fundamentally overhauling the recycling system. Published in 2021, Recycling Victoria: A new economy is a sweeping plan of reform to establish a recycling system that Victorians can rely on. It aims to transform how the economy uses materials and how our state reuses, repairs and recycles.

Recycling Victoria puts forward four goals spanning the life cycle of materials (make, use, recycle and manage). Each goal is designed to maximise value and minimise waste.

GOAL #1

Design to last, repair and recycle.

Generate less waste in businesses through innovation and design; use recycled materials in products and consider impacts across product life cycles; and support business to explore new circular economy business models.

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 resources.

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.

GOAL #4

Reduce harm from waste and pollution.

Protect communities and the environment from high-risk and hazardous wastes.

This work provides the mandate and structure that will support the creation and adoption of circular solutions in all aspects of our economy. This project is an example of the action that is resulting from this work.

Circular Economy in Numbers

A Victorian Circular **Economy**

Estimates from Recycling Victoria and the National Waste Action Plan



-80%

Waste sent to landfill



Economy

\$6.7 Billion

Dollars generated by improving material efficiency and recycling



Employment



Energy

3,900

Jobs to be generated by 2030 around waste valorisation

Reduction in GHG emissions and energy use

An Australian Circular Model

\$1,860 billion

Direct economic benifit in 20 years -165 mm tonnes

CO2 per year by 2040

Source: PwC

A Global Circular Model

\$1.4 trillion

Global material cost savings per year by 2025

\$4.5

trillion

Global economic benefits to 2030

Source: KPMG

Collaborate to Thrive

Program Overview

Collaborate to Thrive is a social innovation program designed to help catalyse the conditions needed for a local circular innovation ecosystem to thrive. The program delivers a selection of engagements in close collaboration with a Local Government Area (LGA). Engagements are selected and scoped together with the LGA to ensure that the program is building on ongoing work and compounding existing impact, in order to strengthen and support the local transition towards a more circular economy.

The program takes a systemic approach to catalysing a local circular ecosystem by working through four integrated phases:

- **System Phase**
- **Awareness Phase**
- **Education Phase**
- **Innovation Phase**

The program engages four broad stakeholder categories across the integrated program phases, working to understand, map, and strengthen local collaborative ecosystems, thus increasing the potential to activate circular economy initiatives within the local economy.

The four broad stakeholder groups are:







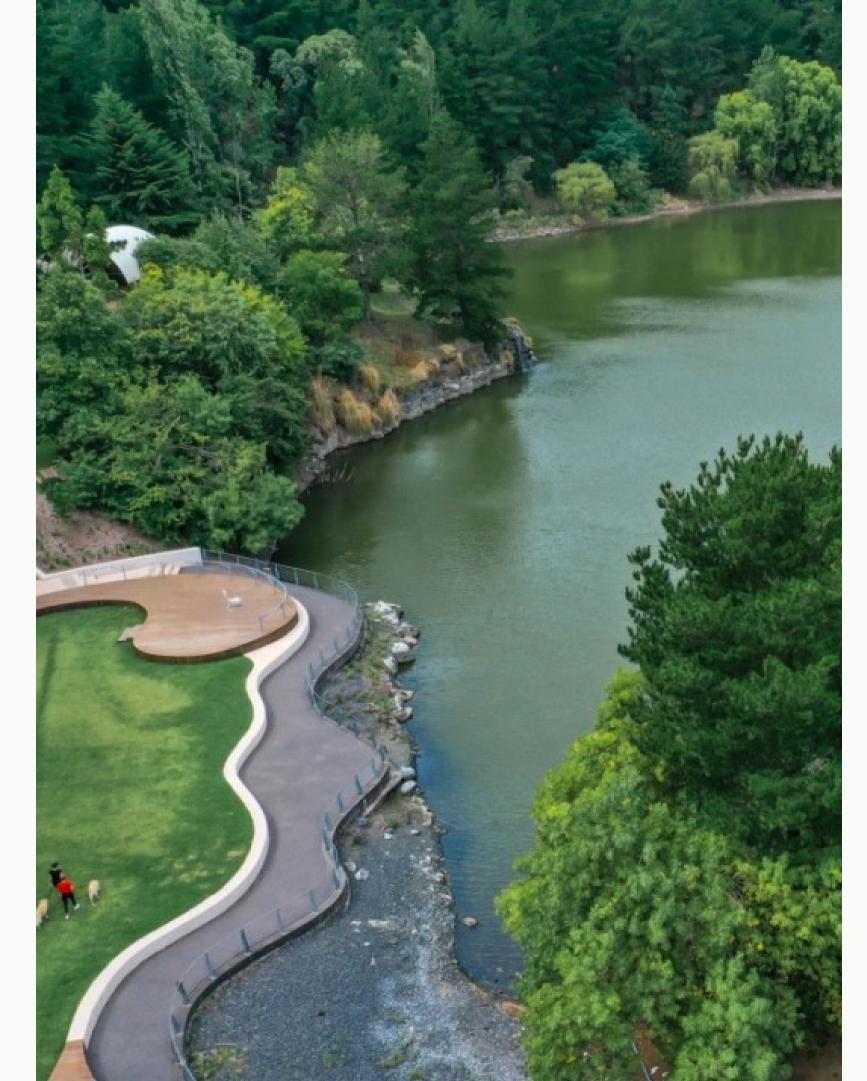
Industry



Non-Profits & Academia



Community Members



Collaborate to Thrive

Program Scope

The City of Casey Collaborate to Thrive program was initiated in August 2021 with the purpose to explore circular economy opportunities within the municipality. A working group was formed, creating a core team from Casey and CEV to guide and inform the various aspects of the program. Stakeholders across different Council departments were included in the working group to ensure a holistic internal perspective. At the same time, a steering committee was formed to provide high-level recommendations and guidance in line with Casey's strategic objectives. The steering committee was made up of 4 managers from the City of Casey.

For the System Phase, the program scope was left broad and explored City of Casey strategies through both a Doughnut Economic Lens, as well as a Circular Economy Lens. Broad ecosystem mapping was also completed, mapping the current landscape of circular economy actors and initiatives within the municipality.

For the awareness, education, and innovation phases, however, it was decided to limit the scope of stakeholder engagement to opportunities related to the built environment. This included stakeholders that currently plan, build, maintain, and use the built environment within the City of Casey. The built environment was prioritised because of both its environmental footprint and its economic importance in the municipality.

Through a series of targeted activities, the program worked towards the following objectives:

- Understand drivers, enablers and barriers to CE in residential, industrial and civil construction to inform innovation pathways
- Provide council with practical pathways to circularity in the built environment through design, construction, and management of assets.
- Understand opportunities and prioritise CE interventions in council-owned assets, infrastructure, and housing.
- Increase awareness and understanding within Casey residents about opportunities to embed CE in their households and in communal spaces across the city.
- Uncover key opportunities for collaborative innovation in the local built environment ecosystem.

Program Activities



System Phase

- LGA Strategy Review
 - (Doughnut Economics Lens, Circular Economy Lens)
- Stakeholder Mapping
 - Landscape analysis of local circular economy organisations and initiatives



Awareness Phase (built environment focus)

- Stakeholder Engagement
 - Government stakeholder engagement through focus groups
 - Industry stakeholder engagement through interviews
 - Community engagement through a co-design workshop
- Awareness Campaign (online social media campaign)



Education Phase (built environment focus)

- Masterclasses
 - City of Casey team members



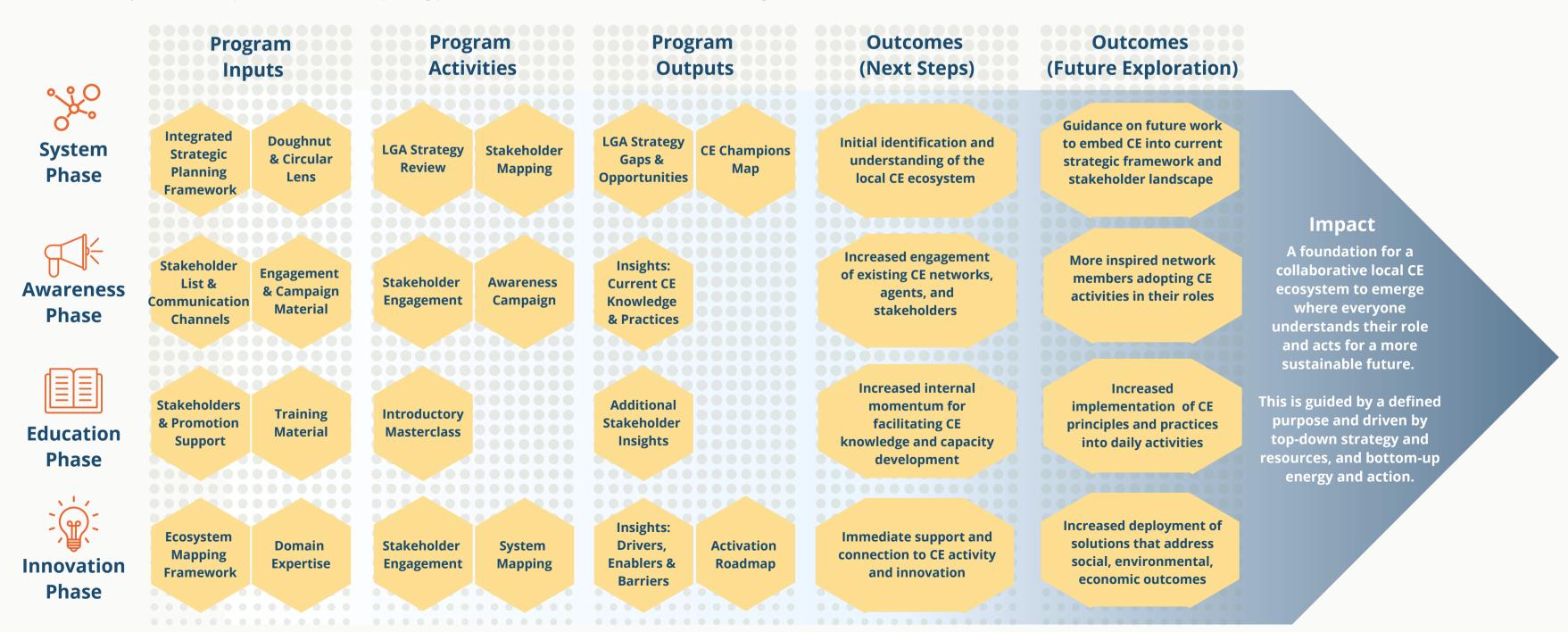
Innovation Phase (built environment focus)

- Ecosystem Mapping
 - Local circular economy drivers, enablers, and barriers
- Circular Economy Activation Roadmap

Theory of Change

A Theory of Change is a powerful tool for solving complex problems, as it provides a structure to help bridge the gap between the current state of a system (City of Casey and its predominantly linear economy) and an ideal future condition to achieve (a broad adoption of circular economy by all actors in Casey). By identifying how a program can help achieve the desired outcome, a theory of change supports the development of a pathway, defining how a program is supposed to work (modules and activities), who has to be involved and who will benefit (stakeholders), what are the timeline and the conditions needed to succeed.

Following this process, a theory of change was developed for Collaborate to Thrive. It is important to note that the objectives set by the program are reached through the combination of activities that cross Awareness, Education, Innovation and System levels to promote an all-encompassing process of social, economical and technical change.



Circular Economy Strategic Alignment

The City of Casey makes direct reference to circular economy in three of their domain strategies and indirect reference in one of them. The Environment Strategy addresses the transition holistically from waste management, environmental restoration, and climate change perspective. Objectives focused on circular economy innovation are supported in the Economic Development Strategy and in the Infrastructure Strategy, particularly in the domain of sustainable infrastructure development. Although not directly referenced, the Health and Wellbeing Strategy does acknowledge the importance of sustainability in the context of food security.

Overall, the Collaborate to Thrive program found that the City of Casey has embedded circular economy into its Integrated Strategic Planning Framework, providing a long-term strategic direction to accelerate the local transition towards a more circular economy. A few gaps that should be considered in forthcoming iterations of these strategies include:

- The relationship between nature and health and wellbeing
- The economic opportunity in material already circulating within the local economy
- The social-economical-environmental tradeoffs associated with a growth corridor council
- Green field opportunities in sustainable urban planning

Environment Strategy Objective 2.1

"Increase the quality of material sent to recycling facilities for processing"

Environment Strategy Objective 2.2

"Facilitate roll out of **Recycling Victoria's** kerbside reform program"

Environment Strategy Objective 2.3

"Facilitate establishment of an **Advanced Waste Processing Facility in** south-east Melbourne"

Environment Strategy Objective 2.4

"Reduce Council's corporate waste and improve resource recovery"

Environment Strategy Objective 5.1

"Build organisation capacity in environmental sustainability and climate change"

Environment Strategy Objective 5.2

and services"

Economic **Development**

Strategy

Infrastructure

Strategy

Health &

Wellbeing

Strategy

Circular

Economy

Environment Strategy

"Support growth of emerging technology sectors, including biotech, medtech, climate infrastructure, engineering, and advanced manufacturing"

Economic Development Strategy

Objective 3.2

Infrastructure Strategy Objective 4.1

"Explore the delivery of infrastructure that is carbon neutral, supports a circular economy, and facilitates disassembly at end of life"

Health and Wellbeing Strategy Objective 4

"Healthy easting and food security"

"Improve sustainable procurement of goods

Engagement Overview



Council Engagement

3

19

Focus Team members groups interviewed

36

Masterclass sessions

Live attendees

Focus Groups

Masterclasses

"There's a need for granular reporting around delivery and maintenance of buildings, improvement around analysing current practices and trials to identify and reinforce innovation."

"The Circular Economy industry is in its infancy, so inevitably there are "start-up" costs not taking advantage of scale, but Council has opportunity to help drive scale."

See Appendix, Page 21-24 for detailed engagement insights



Industry Engagement

8

Businesses engaged

18

Team members interviewed 13

Engagement sessions

Individual business interviews

"We need reports that inform government, so we can turn innovation into standards through progressive research and innovations documented in guidelines."

"We try to create locally functional communities. Coming out of a pandemic people will likely live more locally, so we hope this will contribute positively to create an inclusive suburban model."





Community Engagement

3

Community groups engaged

44

Event registrations

21

Live attendees

Community co-design session

"There's a need for hope, for circularity champions that lead by example, as well as a clear pathway to help overcome the fear of change."

"Circular economy innovation has a long incubation process and requires entrepreneurs to adopt along-term mindset. We need to give sense of empowerment to innovators, though ensuring they are aware that adoption takes time."



Council Engagement

The City of Casey has a forward-thinking internal team that is dedicated to creating positive outcomes for both the people and natural environment of Casey. The engagement showed a strong willingness to explore circular economy opportunities both from a social perspective in terms of drivers, enablers, and barriers, as well as a technical perspective in terms of knowledge, tools, and resources. Internal teams also showed a well-established collaboration structure, however the pressure to deliver and a slow rate of interdepartmental knowledge sharing were identified as key limiting factors to realising the full potential of these structures.

The below outcomes were derived from insights drawn from the internal focus groups, masterclasses, and internal working group meetings.



THEMES

OPPORTUNITIES

CE Innovation Projects

There is a need for a space and engagement model to support the identification and validation of CF innovations with internal teams and external partners.



Planning &

Council's large footprint of buildings and spaces requires optimisation of Council assets from early stage planning to management, maintenance and end of life.



CE Market

Internal databases. procurement guidelines, and risk frameworks need to be strengthened to support local market development of CE.



Education & Communication

Low staff awareness and understanding requires ongoing capability building around sustainability and development of case studies for knowledge sharing.

Indicative Activation Opportunities

• Create a physical Circular Economy Living Lab to drive local CE innovation and ecosystem development through events, demonstration projects, and capability building.

- Include CE targets and metrics into the next Capital Works Policy review.
- Conduct an official review of post-Covid usage data of Council managed assets and develop mechanisms to develop modular spaces suited for mixed-use.
- Develop sustainable procurement targets and guidelines for team members and contractors.
- Compile a database of local market-ready sustainable materials (Buy Recycled Directory).
- Develop local CE case studies to provide practical examples to accelerate adoption and implementation of CE activities.
- Carry out CE training programs to build internal capabilities needed to generate CE solutions.
- Embed circular economy principles into ongoing City of Casey Innovation Bootcamps.

Future Exploration

- Develop a Circular Economy Framework to provide a systemic integration of CE principles into Council Domain Strategies.
- Partner with neighbouring Councils to leverage networks, facilities, and capabilities to strengthen a regional transition towards a more CE.
- Facilitate conversations with state regulatory bodies and authorities to open opportunities for large scale urban transition opportunities around mobility, energy, water, and biodiversity.

Key Enablers

Clear and measurable targets and goals

Case studies and risk mitigation framework

Strategic mandate and KPIs

Access to market ready CE solutions

Practica tools/ guidelines/ standards/ framework

What is a Living Lab?

A physical space to test and trial new concepts, that enables community, Council, and businesses to understand benefits and risks in a controlled environment before scaling up.

See Appendix, Page 21-22 for detailed engagement insights



Construction Industry Engagement

Developers that took part in the Collaborate to Thrive program showed a keen interest in exploring the potential benefits of a circular economy within their operations, as well as within the broader Casey community. Participants recognised the long-term impact their work has on shaping the future of the municipality, and because of this they demonstrated a strong sense of pride in the legacy of their work, especially in connection with civil works infrastructure that was passed on to Council or State management. Downstream supply chain partners within the construction industry were less willing to engage due to project time pressures and a shorter time horizon. Based on the engagement it is understood that top-down regulation and planning permit mandates can play a significant role in accelerating CE outcomes within Casev's built environment...

The below outcomes were derived from insights drawn from the developer and supply chain partner interviews.



THEMES

CE Innovation

Low awareness of CE in industry requires leadership from Council. Having a priority list of industry led CE innovation projects would accelerate action.



CE Market Acceleration

To accelerate the market. facilitation of industry connections and case studies with CE products and partners will help them understand the benefits of adopting CE initiatives.



Waste Reduction

Waste reduction could have significant cost savings for industry, however the channels for managing waste and creating secondary markets is not established.



Regulatory **Clarity**

CE mandates in Council controlled planning permits and collaboration with State regulators and authorities will provide clear guidance to Developers

Indicative Activation Opportunities

- Build on existing CE projects (i.e. Investigation into EPS waffle pod alternatives)
- Create long term collaborations with research institutions and industry partners to support with feasibility studies of emerging CE material innovations in the local construction industry
- Support an independently facilitated roundtable between Council, developers, State regulators and authorities around the future integration of renewable energy projects and sustainable water management practices in large scale developments.
- Provide business leaders with a subsidies CE capability building program.
- Create a priority list of waste minimisation initiatives for Commercial and Industrial, and Construction and Demolition waste in partnership with Construction sector.
- Support, promote, and integrate unmandated industry led natural environment regeneration initiatives with Council led initiatives.
- Work with industry to increase utility of industrial and commercial spaces in Casey, as well as explore mixed-use opportunities of council assets to support CE initiatives by industry.

Future Exploration

- Create a core list of businesses willing to support the creation of a CE business network based out of a Circular Economy Living Lab.
- Explore the adoption of a particular provision in the Planning Scheme for Circular Economy initiatives (recycled materials, resource utilisation, waste reduction).
- Trial CE principles and implementation activities in PSPs to further accelerate CE in planning stages of new estates.

See Appendix, Page 23 for detailed engagement insights

Key Enablers

Strong executive leadership with long term impact horizon

Regulation. Tariffs. Rebates

Practical tools/ guidelines/ standards/ frameworks

Buy-in from downstream contractors & suppliers

Risk sharing & mitigation frameworks

OPPORTUNITIES





Community Engagement

The City of Casey has an engaged and motivated community that are eager to help create a sustainable city for current and future generations. The community engagement activities of the Collaborate to Thrive program have uncovered a growing network of community-led CE initiatives, as well as a raft of creative solutions that could be embraced by Council to support new grass root activations. The engagement also highlighted a fear or ongoing disconnect between top-down and bottom-up action, with specific reference to the differing values of industry verse that of the community. As Casey grows and develops into a thriving new city within the Greater Melbourne Metropolitan Area, Council has the opportunity to take a systemic approach to build a resilient local network of citizen-led action that will provide the support for ambitious long term sustainability objectives.

The below outcomes were derived from insights drawn from the community co-design session and stakeholder mapping exercise.



THEMES

OPPORTUNITIES

CE Innovation Co-Design

More opportunities for various networks to connect and co-design and test solutions is important for adoption of CE.



Compound **Existing Impact**

Scale up existing grassroots CE initiatives through grant funding, activity space, and marketing support.



Build Networks For Scale Up

Actively work with key local initiatives to create strong networks where they can scale up projects with industry partners.



Education & Communication

Explaining CE in simple terms and adapting CE concepts for various cultures, languages will be critical.

Indicative Activation Opportunities

- Host an annual CE focused co-design session as part of the Circular Economy Living Lab.
- Create a Council led CE Champions groups made up of identified CE community champions.
- Identify a prioritised list of potential Council owned/managed facilities eligible for CE community initiatives like edible gardens, repair cafés, educational activities, and second-hand markets.
- Create an information pack explaining CE in simple terms and adapt CE concepts for various cultures, social arrangements and languages.
- Lead a demonstration circular food system project with identified stakeholders from the codesign session.
- Embed circular economy capability and projects in the Community Leadership Program.

Future Exploration

- Embed the circular economy principles into future community visioning work and community engagement.
- Accelerate community led innovation using Casey open data visualisations about waste and resources for innovation challenges.
- Create a networking platform for community members and groups to connect with CE initiatives and access grant funding.

Selandra

See Appendix, Page 24 for detailed engagement insights

Activation Roadmap - Journey to Circularity

Building on the stakeholder engagement and strong strategic foundation provided Council's strategies, as well as the activation platform provided through the Smart Casey Launchpad, a set of pathways are recommended to continue to activate the City of Casey in the CE space. Over the next 3 years, a roadmap with CE activation pathways is recommended to continue to accelerate the local transition towards a more circular economy from a inclusive systemic perspective.

This roadmap is intended to promote immediate action and guide further exploration into a formal roadmap that will support Casey's long term transition towards a more circular economy.

Casey CE Pathways



Deliver CE Innovation Projects

Develop and deliver a pipeline of innovation projects through Casey's Innovation Program or as part of the Victorian Circular Activator Innovation Programs.



Build CE Networks

Formalise and support three working groups to continue to foster constructive dialogue and bottom-up innovation focused on the CE.

- 1. Internal Council working group
- 2. Industry led CE business network
- 3. Community led CE champions group



Develop a CE Framework

Deliver a CE Framework to support a long term goal of transition to a more CE and empower innovations developed through the CE Living Lab and CE Working Groups to scale.

Engage external CE professionals support to assist with systems thinking, technical assessments and inclusive engagement.





Activate CE Spaces

Drive continuous CE innovation and validation through the Smart Casey Launchpad by establishing a Circular Economy Living Lab at an existing community hub within the next 6 to 12 months



Create Tools and Resources

Through the CE Working Groups, develop a set of practical guidelines, tools, and learning resources to support ever-day decision making towards a more CE in Council, business, and community activities.

The CE Living Lab can be used to help validate tools and resources.

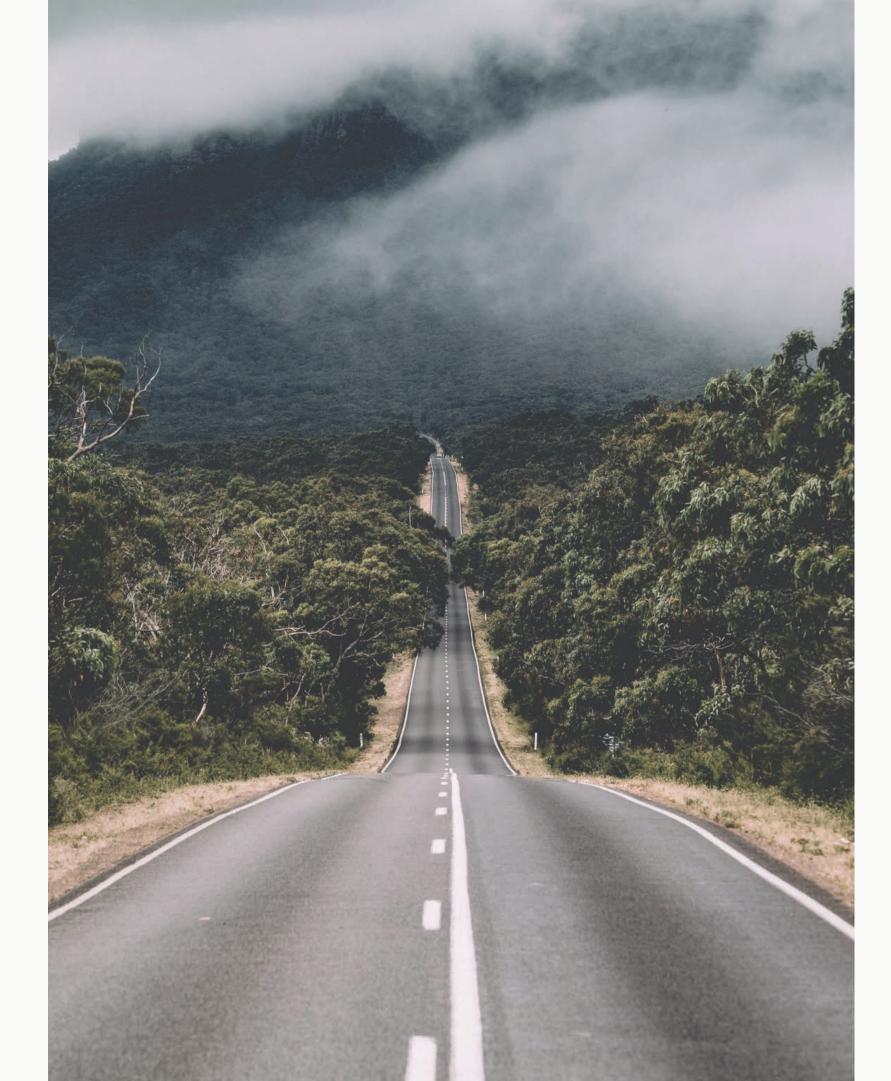
Next Steps

Sign Off

- Align opportunities to business plan actions
- Gain endorsement from Steering Committee

O2 Continue Scoping

- Conduct workshops with key stakeholders on the opportunities
- Start developing the Circular Innovation Living Lab
- Start planning the OCF Activations and apply for grants





Appendix

Detailed Engagement Activities





Council Engagement activities

Focus Groups

To better understand the barriers, enablers and drivers to a circular economy in Casey built environment it was essential to understand the council perspective, as the construction sector is a heavily regulated industry requiring alignment between innovative businesses and regulatory bodies. Three focus groups were carried out with Council employees, creating teams from different departments to gather a diversity of perspectives in each session.

Emerging Themes

Procurement

- Need for a clear, shared internal direction, and better standards (guidelines, sustainable outcomes in contracts
- CE procurement database with market-ready materials
- Less material to landfill through improved procurement, resulting in reduced costs downstream

Planning

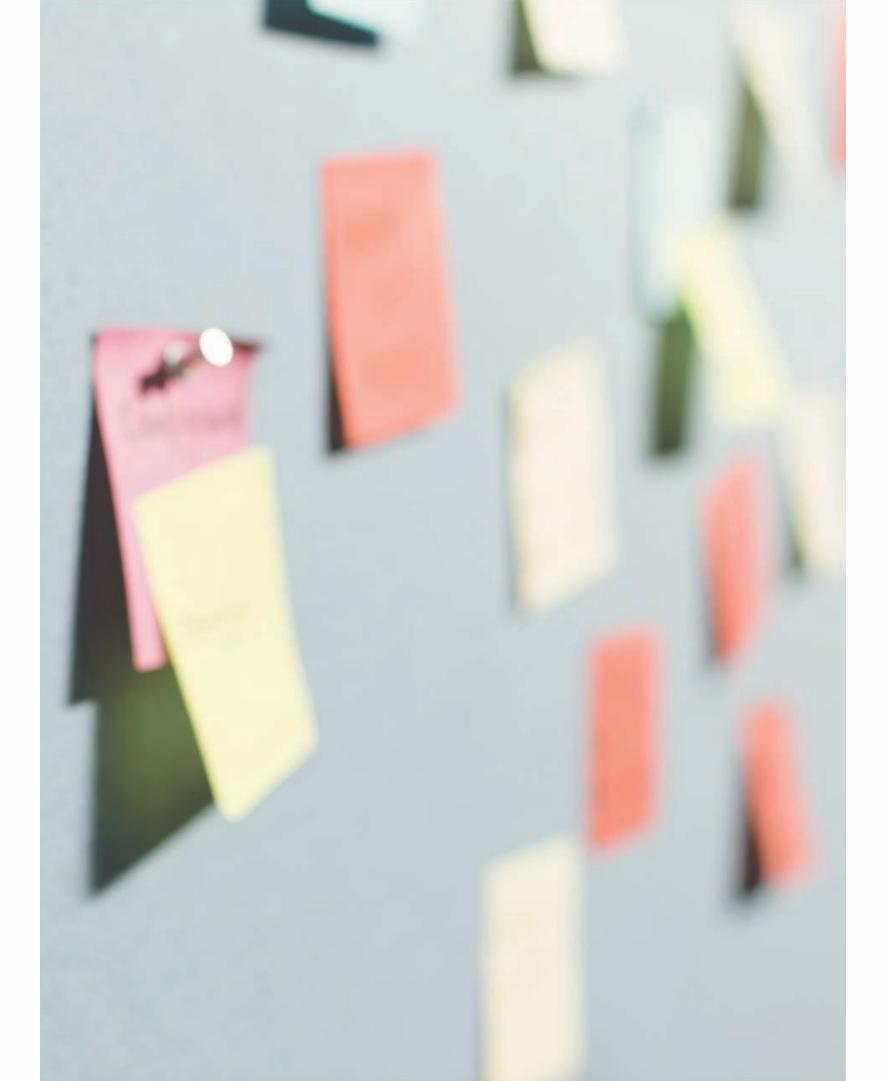
- Need to analyse whole life of assets and costs associated with CE changes
- Opportunity to implement CE in planning via Capital Works Policy (next review in 2023) and incorporate Environmental, Social and Governance (ESG) criteria in planning schemes

Maintenance

- A high risk is seen in incorporating new products, and there's an inability to enforce use of specific materials upon contractors
- Opportunity to use data and inform decisions on asset utilisation
- Plan more multi-use assets and hubs to prevent current maintenance issues

Water and energy

- Need for a broader conversation with industry and regulatory bodies to coordinate actions around sustainability opportunities
- New guidelines are in the process of being developed with Environment Protection Authority (EPA) around water utilisation and transportation



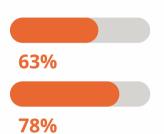


Council Engagement activities (cont.)

Masterclass Sessions

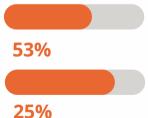
The masterclass sessions were part of the Education stream of activities and aimed to empower team members in council through an understanding of CE, providing them with tools to better serve their role in Casey's transition towards a CE, regardless of previous knowledge and area of expertise. Both training sessions and a workshop were included in the two sessions offered by the CEV team in November.

51 employees were surveyed prior to the masterclass to assess level of knowledge and perceived relevance of CE in their professional role within council.



CE knowledge is very/extremely important in my role today

CE knowledge will be very/extremely important in my role in the future



I have basic understanding of CE

I have minimal to no knowledge of CE



I haven't engaged in any CE learning in the past 12 months

Case Studies Discussed

Group 1 - Build Casey's Built Environment

The City of Casey is growing and new roads, houses, community centres, parks, hospitals and other infrastructure projects need to be built. How can Council catalyse more circular economy action in this space?

Group 2 - Using Casey's Built Environment

As the City of Casey grows higher demand is put on council assets and more resources flow through council managed infrastructure. How can Council catalyse more circular economy practices around product/material and water flows?

Emerging Themes

Procurement

- implementation of a framework with CE requirements for contractors
- creation of a centralised smart system to manage local procurement, buying in bulk and facilitating the introduction of repurposed materials

Monitoring and technology

- data analysis and ongoing measurements of predefined CE metrics
- sensors to provide information on building maintenance
- digital database in council inventory to access materials (See procurement)

Micro hubs and multi-use buildings

- transitional buildings to adapt as demographics and social needs change
- decommissioned spaces to activate CE innovation by local start-ups and community groups

Education and communication

- Need for CE toolkits and education activities to build council employees capabilities
- Need to involve and educate the community with clear messages and localised pilot initiatives



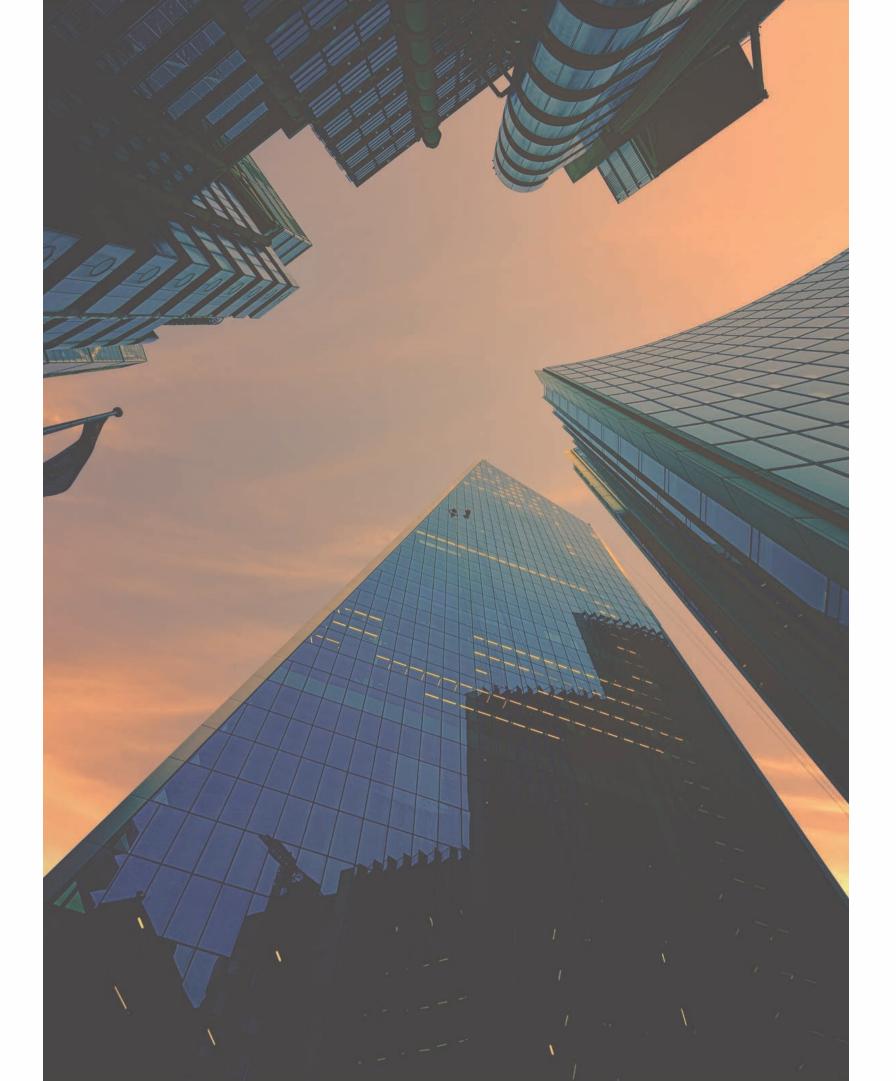
Industry Engagement Activities

Business Interviews

The engagement phases included a series of interviews with developers and supply chain partners carried out between September and November 2021 by the CEV team, with the support of dedicated account managers from council. The qualitative data gathered were analysed to identify recurring themes and inform recommendations for the development of innovation pathways.

Emerging Themes

- Recycled-content materials are still adopted on a project-to-project basis, with regulations in the industry often hindering innovation. Supply chain disruption is affecting procurement, with limited choices available on the market to meet sustainability standards as well as project deadlines
- In the city of Casey, illegal dumping and the use of waffle pods by contractors are the most significant issues causing financial and environmental damages
- There is a **demand for solar power** among homeowners, however, adoption is still isolated due to the lack of an embedded network; this innovation requires power companies and infrastructure authorities in the conversation.
- Water recovery innovation is needed to improve efficiency and enable environment restoration; better alignment with authorities is needed to tackle the issue through a coordinated effort.
- Most businesses are implementing voluntary activities to ensure soil health, green growth, and flora & fauna regeneration within their projects. Although City of Casey has been engaged in the development of a "Green Street" program, some regulatory gaps appear to hold back environment restoration activities.
- In the community, multi-purpose activation of industrial buildings and public spaces will be crucial to create locally functional, connected communities, while making the most of shared assets.







Community Engagement Activities

Community co-design session

An informal approach was chosen for community engagement, with an online co-design session that included basic CE training, followed by an open conversation facilitated by the CEV team. The previously identified organisations were invited personally, while Casey citizens and informal Facebook group users were invited via social media to register for the event. Team members from council who are actively involved in community initiatives were also invited to participate.

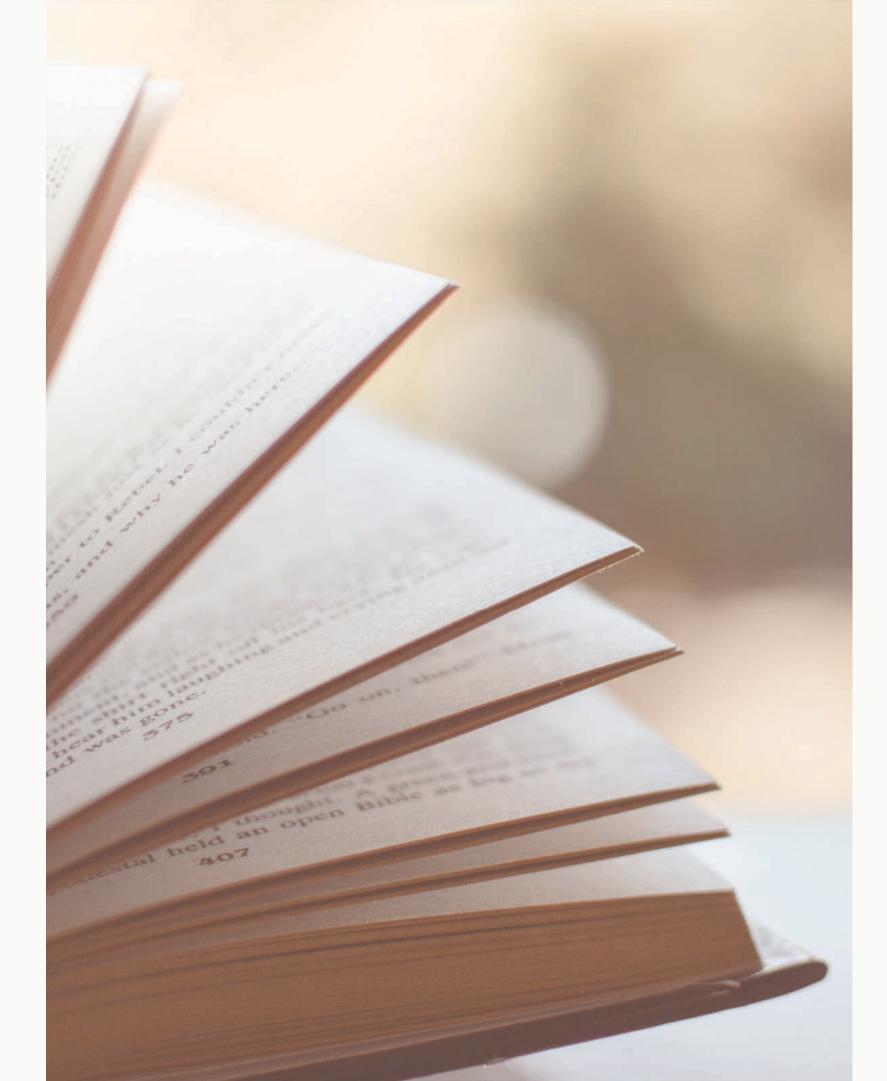
Emerging themes

- The community fears employment loss, as the transition towards CE can create new jobs, but make others redundant. The perception of the private sector is that greed and economic interests are still dominating the choices of most companies, which often don't seem to have the drivers to move away from the business as usual.
- Circular economy is poorly understood, with some particular difficulties highlighted around explaining in simple terms and adapting CE concepts for various cultures, social arrangements and languages.
- There's a need for better **connection among grassroot initiatives**, as well as the development of relationships with leading private partners to promote social and technical innovation (this was discussed particularly in reference to food programs).
- Coordination and communication between Casey City Council and local groups could facilitate the activation of communal spaces through edible gardens, repair cafés, educational activities, and second-hand markets; some of these projects are already in the process of being developed.



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Cicular Economy Drivers, Enablers and Barriers in Casey

Drivers

- Standards
- Legislation
- Best Practice
- Strategic Mandates
- Targets and Goals
- Internal Scoring Systems
- Forward Thinking Decision Makers
- Internal Culture of Innovation and Sustainability
- Forward thinking leadership
- Supportive Councillors
- Reward suggestions
- Policy
- Tax incentives
- Procurement mandates
- CE criteria in tender process / design brief
- Levies

Enablers

- Design Guidelines
- Specifications
- Procurement Frameworks
- Solutions Directory
- Case Studies
- Collaboration between Councils to share the risk / cost
- Cross departmental meetings
- Creating defaults for decisions (recycling)
- KPI's
- Metrics
- Reporting standards
- Sustainable outcomes in contracts
- Independent research and development partners
- Policy
- Vested interest
- Improved returnable schedules in projects
- Knowledge sharing across the organisation
- Data integrity and transparency
- Established relationships
- Data supported benefits defined and well communicated
- Transparency of product/project impacts
- Decision making frameworks

- Education of lifecycle impacts
- Case studies
- Data modelling and projections
- Transparent data
- Strong business relationships
- Specifications in contracts
- Demonstration projects
- Award programs
- Life cycle assessments

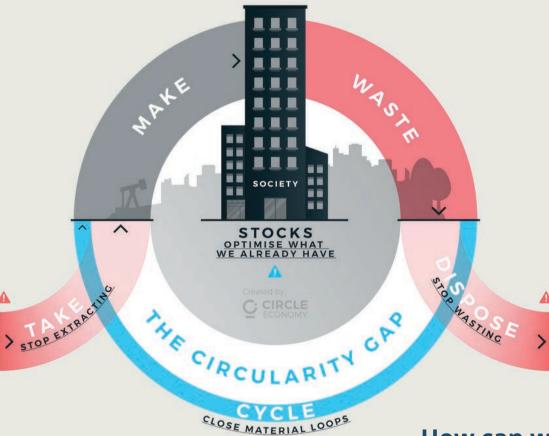
Barriers

- Ambiguity of meaning of CE
- Unknown budget implications
- Unknown life cycle costs of CE solution
- Established tender processes (Due process)
- Start-up costs of CE industries
- Unknown risks
- Staff are busy / time poor
- Standard Assessment Criteria and Frameworks
- Innovation adoption cycle
- Stigmas of recycled products
- Lack of standardised guidelines
- Red tape at Authority or Regulatory Body
- Culture of getting things done
- Pressure of delivery
- Unavailability of alternatives
- Weak price competitiveness
- Unsecure supply
- Contractor material transparency
- Missing tools and practical structured education
- Market knowledge Knowing what solutions are market
- Business as usual planning schema
- Contract templates
- Insurance risk (Council assets)
- Bureaucracy with authorities and regulators
- Lack of ownership of waste
- Available funding

Bridge the Circularity Gap

How can we minimise non-renewable inputs?

How can we minimise waste and pollution?



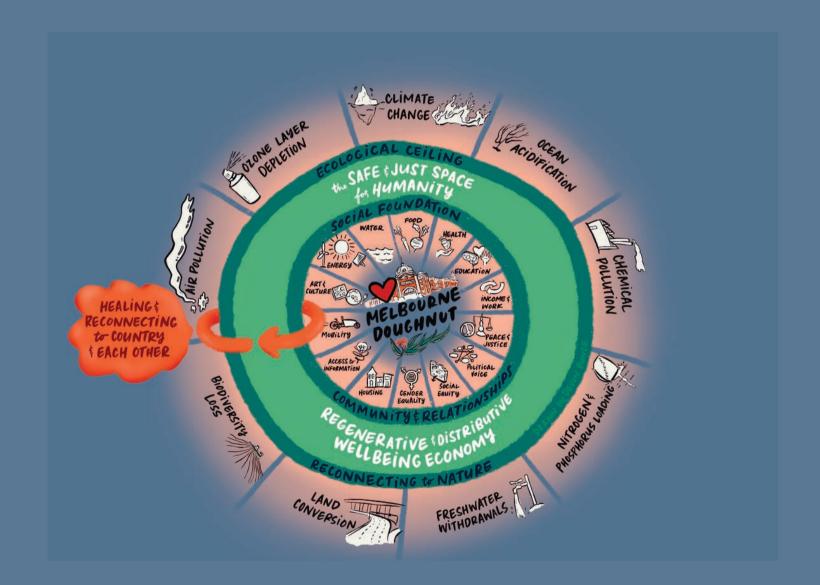
How can we increase the utilisation of Council assets?

How can we reuse/ recycle existing material flows?

How can we regenerate natural ecosystems



Circular Economy Victoria embraces a regenerative vision for Greater Melbourne where all Melbournians can thrive in balance with the life giving systems of our Planet. This vision has been articulated by Regen Melbourne, of which CEV is proud to be a founding member.



Circular Economy Victoria acknowledges the living connections of the Bunuroung Boon Wurrung and Wurundjeri Woi Wurrung peoples to the lands and waters of the Eastern Kulin Nation.

We pay our respect to their Elders past, present and emerging.