

Building Canberra's Circular Economy

ACT Circular Economy Strategy
and Action Plan
2023-2030



Acknowledgement of Country

We acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

Contents

Acknowledgement of Countryi

1. Minister’s foreword.....1

2. Setting the scene2

From the waste hierarchy to a circular future3

Circular economy in action across the ACT4

Why do we need a circular economy?5

Our vision.....6

Strategic objectives7

Focus areas8

Consultation9

3. Circular economy action plans 10

Procurement, skills, innovation and governance action plan11

Food and organics action plan12

Built environment action plan.....13

Consumer goods action plan.....16

Emerging and problematic waste streams action plan.....18

Creating space to showcase our commitment to the circular economy action plan19

4. Making it happen 20

© Australian Capital Territory, Canberra 2023

This work is copyright. Apart from fair dealing for the purpose of private study, research, criticism or review as permitted under the Copyright Act 1968, no part may be reproduced by any process without written permission from the Director-General, Transport Canberra and City Services Directorate, ACT Government, GPO Box 158, Canberra ACT 2601, call 02 6207 1923 or visit www.cityservices.act.gov.au

ACCESSIBILITY

The ACT Government is committed to making its information, services, events and venues as accessible as possible.

If you have difficulty reading a standard printed document and would like to receive this publication in an alternative format, such as large print, please phone Access Canberra on 13 22 81 or email the Transport Canberra and City Services Directorate at tccs.communications@act.gov.au

If English is not your first language and you require a translating and interpreting service, please phone 13 14 50. If you are deaf, or have a speech or hearing impairment, and need the teletypewriter service, please phone 13 36 77 and ask for Access Canberra on 13 22 81.

For speak and listen users, please phone 1300 555 727 and ask for Access Canberra on 13 22 81. For information on these services visit www.relayservice.com.au



1. Minister’s foreword

The ACT Government is leading the way to a sustainable future.

We aspire to be a thriving and equitable city that respects the limits of our planet. We recognise our responsibility to act on the urgent challenges of a changing climate and minimising our environmental footprint.

This is why the ACT Government is turning our attention to how we can create, support and foster a circular economy right here in the ACT. We want to do this by moving away from the idea of a throwaway society to one which prioritises repair, reuse and recycling and by maintaining the intrinsic value of resources, reducing waste, and encouraging design which focuses on the whole life cycle of a product.

I am pleased to release the ACT’s Circular Economy Strategy and Action Plan which outlines actions and opportunities to build a circular economy for the ACT.

We have identified six key themes to drive our initial efforts, including food and organics, the built environment, consumer goods, emerging and problematic waste streams, creating space to showcase our commitment to the circular economy, and procurement, skills, innovation and governance.

After months of focused consultation on the [draft ACT Circular Economy Strategy](#), we have heard that there is a strong willingness in the community and in industry to participate in a circular economy. Feedback we have received has told us that many parts of the community are already demonstrating behaviours consistent with the principles of a circular economy.

We have held workshops with industry and business representatives, and colleagues from the Canberra region under each of the Strategy themes. Their enthusiasm and engagement gives me great confidence in our ability to grow a very successful circular economy in the ACT.

Working together will be critical to our success. We know that the next steps to achieve our goals requires continued effort from all of us. From businesses, consumers, producers, and sellers – we will all need to take part.

It’s encouraging that there is already a wide range of services available in the ACT that support the circular economy, such as repair cafes, charity stores, shared mobility, and reusable coffee cup schemes. The ACT Government has also introduced several initiatives supporting greater circularity, such as bans on single-use plastics, implementing a container deposit scheme, and using recycled content in our infrastructure projects.

There is more work to do and this Strategy outlines how we will work towards building the circular economy. It also highlights areas for industry, business and government to continue working together. I also look forward to engaging with the Canberra community, including our business and industry partners, to deliver the Strategy and Action Plan as we work towards the goal of Canberra becoming a circular city.

Chris Steel MLA
Minister for Transport and City Services



2. Setting the scene

What is a circular economy?

Circular economy refers to a cyclical, regenerative system that minimises resource inputs, waste, emissions and energy. It aims to stop waste from being produced in the first place, and replace the dominant 'take-make-dispose' economic system with one that is resource efficient and regenerative by keeping resources in continuous use at their highest possible value. By making changes across the entire material lifecycle, a circular economy can support us in achieving sustainable consumption and production.

Three key principles of a circular economy

1. Designing out waste and pollution

With a focus on rethinking how we design, make and remake products, we can treat waste and pollution as a design flaw and stop it before it is created. We can use materials more efficiently through purposeful design and support them to re-enter the economy at end-of-life.

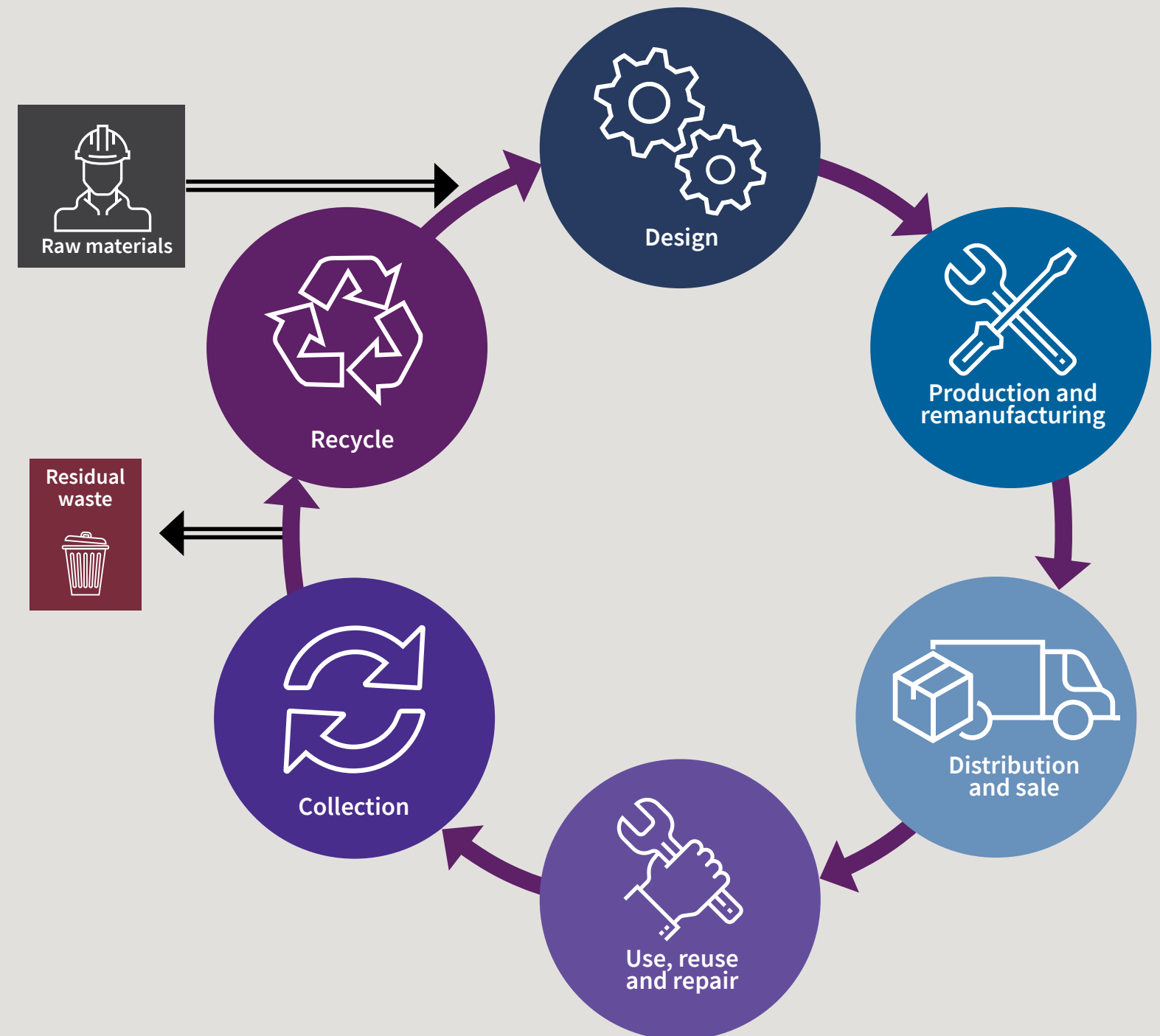
2. Keeping products and materials in use at their highest value

By keeping materials and products in use, either in the form of products or as their raw materials, we can avoid the creation of waste and retain the embedded value of products and the materials they are made from.

3. Avoiding negative impacts on the environment and regenerating natural systems

The current linear economy model is depleting natural resources and ecosystems, which is unsustainable. Circularity provides the tools for us to transition to an economy where waste and pollution are avoided and natural systems are regenerated.

Stages of the circular economy



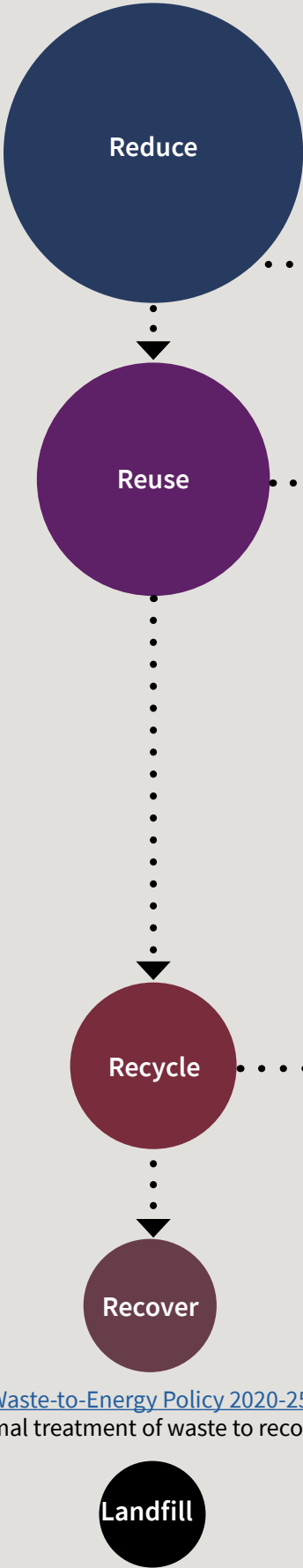


From the waste hierarchy to a circular future

The circular economy is a growing concept in Australia. In the past waste management has typically focused on how to treat the waste we produce through recycling and disposal. Recycling will continue to play an important role in keeping materials in circulation, however, with increased circularity, we seek to move beyond this and address avoidance, better design and reusability, exploring opportunities across the entire product lifecycle.

The circular economy goes beyond the traditional waste management hierarchy by moving materials up the hierarchy towards the waste prevention measures, rather than managing waste at the end. The focus is broader and looks at how we, as actors in the economy (consumers, producers, and sellers), consume materials and resources, design products, prevent waste generation, and extend the life of goods and products. It expands on the traditional reduce and reuse prevention measures, reducing the need for consumption in the first place, and focusing on keeping materials in circulation for as long as possible at their highest value.

Waste hierarchy



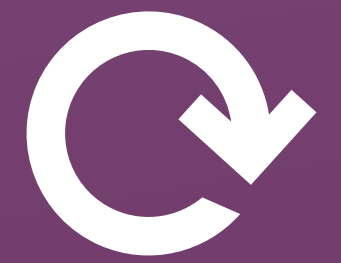
The [ACT Waste-to-Energy Policy 2020-25](#) permits non-thermal treatment of waste to recover energy

As we transition towards a circular economy the safe disposal of residual waste via landfill will still be necessary

Circular economy strategies

Refuse	Make a product redundant by abandoning its function or by offering the same function by a different (e.g. digital) product or service
Rethink	Make a product more intensive (e.g. through product as a service, reuse and sharing models) or by putting multifunctional products on the market
Reduce	Increase efficiency in product manufacture or use by consuming fewer natural resources and materials
Reuse	Reuse of a product that is still in good condition and fulfils its original function (and is not waste) for the same purpose for which it was conceived
Repair	Repair and maintenance of a defective product so it can be used for its original function
Refurbish	Restore an old product and bring it up to date (to a specific quality level)
Remanufacture	Use parts of a discarded product in a new product with the same function (and quality to sell as a new product)
Repurpose	Use a redundant product or its parts in a new product with a different function
Recycle	Recover materials from waste to be reprocessed into new products, materials or substances

Circular economy in action across the ACT



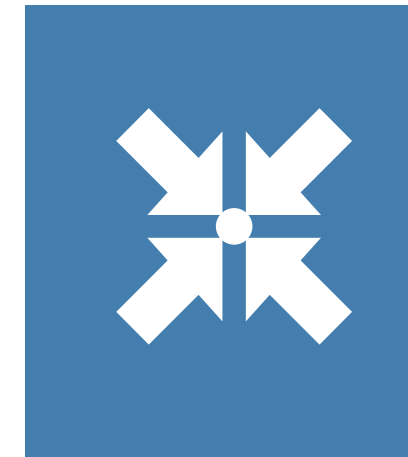
Refuse

- Some Canberra cafes provide free reusable swap and go coffee cups through Green Caffein.
- Conder House Laundry and Linen Service has a Modern Cloth Nappy Service.



Rethink

- Community-led tool and equipment libraries, like Community Toolbox Canberra, support shared access to tools and equipment.
- Shared bike, car and e-scooter schemes in Canberra give people the option to rent.



Reduce

- The Food Co-op composts food waste, has plastic free shopping and a milk bottle exchange program.
- OzHarvest undertake food rescue activities.



Reuse

- Op-shops including, Vinnies, Salvos and Red Cross stores offer a range of high-quality second-hand clothes and household items for sale.
- The Molonglo Group is prototyping innovative construction techniques, including reused and recycled low carbon materials.



Repair

- Clothing alteration and repair businesses across Canberra provide services to repair and extend the life of clothing and textiles.
- Ex-government Furniture repairs, resells and recycles excess office furniture in the Canberra region.



Refurbish

- WV Technology provides complete IT lifecycle services, including refurbishing equipment and recovering resources from e-waste.
- Renewed Appliances repair and refurbish appliances, such as refrigerators, dryers, and dishwashers.



Remanufacture

- Corex collect and recycle corflute from the ACT that goes on to be remanufactured into new corflute products.
- Re.Cycle collect and recycle eligible drink containers through the ACT Container Deposit Scheme that go on to be remanufactured into new containers.



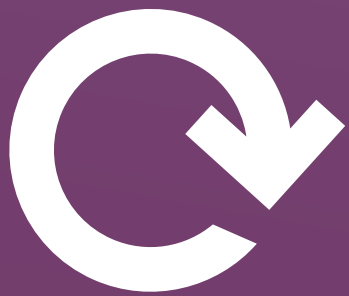
Repurpose

- Thor's Hammer creates furniture, joinery and architectural products from recycled timber, and repurposes sawdust from their operations into fire briquettes.
- Koomarri recycles and repurposes cloth textiles to produce high-quality cleaning rags.



Recycle

- Global Warming and Goterra recycle food waste.
- B-cycle, a battery recycling program recycles eligible batteries from around 60 collection points at Canberra with more nationwide.



Why do we need a circular economy?

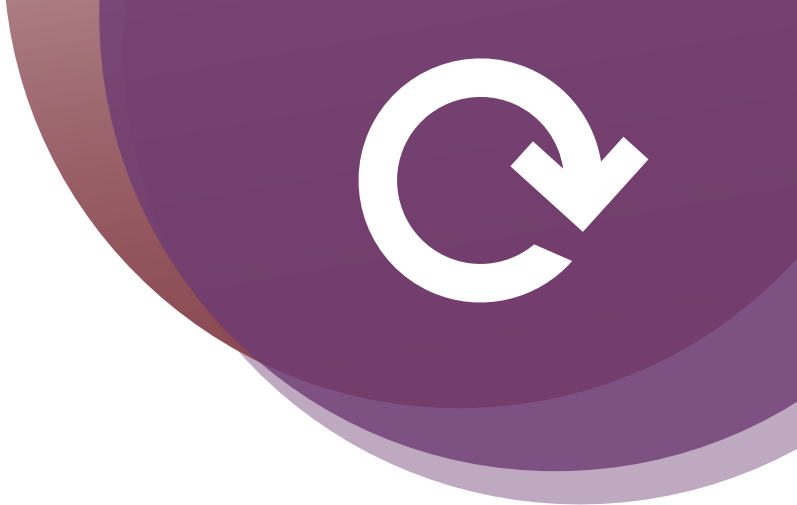
In the last fifty years, the global use of materials has nearly quadrupled, outpacing population growth. The current 'take-make-dispose' linear economic approach sees valuable materials end up in landfill while we continue to draw on precious natural resources to make new products.

The development of a circular economy responds to concerns about resource scarcity, pollution of the environment and the economic limits of patterns of production and consumption. It keeps materials in use for as long as possible, reducing the need to extract natural resources. It also encourages us to rethink our consumption habits and consider the need to buy new products, or whether we can make use of what we already have through reuse, repair, refurbishment, and accessing products through product sharing services.

The benefits of adopting a circular economy are not just around improving the natural environment, wellbeing and supporting the transition to a net zero city. The circular economy provides great opportunities for innovation, economic growth and job creation.



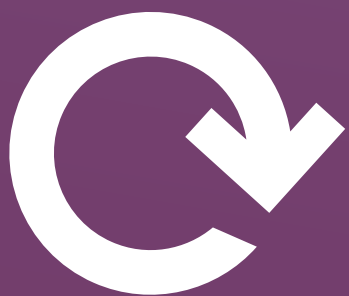
Store holders at the Enlighten Festival embracing the single-use plastic ban



Our vision

Our vision is for Canberra to become a circular city that supports sustainability and allows our community and environment to thrive. We all have a role to play in creating a circular Canberra.

This Strategy and Action Plan sets the high-level ambition with actions to drive the initial steps towards a more circular economy. While the draft Strategy proposed a timeline through to 2025, the timeframe for implementation of this final Strategy and Action Plan is through to 2030 to reflect that actions are identified over the short, medium and long term. In addition, we are seeking to align with the National Waste Policy Action Plan 2030 targets. This approach will enable an opportunity to review and update the Strategy in coming years as necessary, including with the potential to add more circular economy actions in the future.



Strategic objectives

This Strategy is underpinned by three strategic objectives to support the transition to a circular economy, representing areas where the ACT Government would like to see action.

1. Grow extended producer responsibility

Extended Producer Responsibility is a policy approach where producers are given significant responsibility for the treatment or disposal of post consumer products. This incentivises waste prevention at the source and promotes better product design.

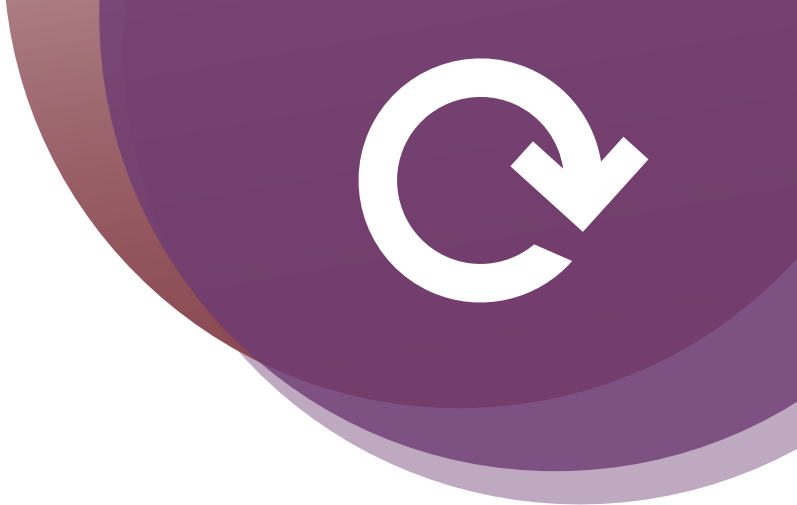
2. Grow markets for recovered materials and goods, and circular business models

Businesses are fundamental to the development of an effective circular economy. By adopting a circular approach, there are opportunities to innovate, reduce costs and build resilience in supply chains.

3. Create high-value jobs and attract innovative new enterprises

Strengthening and advancing knowledge is essential to encourage innovative solutions that respond to a changing context. Transitioning to a more circular economy will provide opportunities for innovation and job creation, for example, in reuse, repair, remanufacture and recycling.





Focus areas

The Strategy and Action Plan focuses on six key themes that provide a significant opportunity to advance circularity in the ACT over the coming years.



Procurement, skills, innovation and governance



Food and organics



Built environment



Consumer goods



Emerging and problematic waste streams



Creating space to showcase our commitment to the circular economy

Consultation

The ACT Government undertook six weeks of community consultation from October to December 2022 to inform the development of the final Strategy and Action Plan.

Responses received during the consultation period indicated a general willingness amongst the community to participate in a circular economy, with many respondents already demonstrating behaviours consistent with the principles of a circular economy, for example, purchasing second-hand goods and repairing household items.

Themes raised in written responses varied between submitting bodies, with many businesses showing strong interest in food and organics, and community groups showing interest in creating space to showcase our commitment to the circular economy.

To encourage greater industry participation, respondents indicated that end markets for recycled products and materials are needed, focusing on producing high-value recycled material to ensure products are recycled as many times as possible. Improved transparency around how items are recycled was noted as a way to increase consumer confidence.

In addition to the feedback received during community consultation, the ACT Government also held workshops under the themes identified in the draft Strategy in February 2023. These workshops provided an opportunity for industry and business stakeholders to provide feedback on the draft Strategy, discuss potential opportunities to grow the circular economy, and identify and prioritise potential circular economy initiatives.

Industry and business workshop outcomes

Food and organics

Key enablers

- » Community education and behaviour change
- » Food waste avoidance
- » Infrastructure and land use
- » Policy
- » Regulatory changes
- » Government leadership at all levels
- » Incentives to support technology and infrastructure development.

Built environment

Key enablers

- » Knowledge sharing
- » Enabling conditions
- » Design standards
- » Procurement
- » Investment in capability building
- » Advocacy to drive national change and evolve design standards.

Consumer goods

Key enablers

- » Developing a localised community hub
- » Policy
- » Funding
- » Product stewardship
- » Education
- » Leadership
- » Product stewardship and regulatory change at the national level
- » Creating space.

Potential priority products

- » Electronic goods
- » Plastic packaging
- » Homewares
- » Car seats
- » Mattresses.

Emerging and problematic waste streams

Key enablers

- » Regulatory and procurement frameworks
- » Enabling local circular economy practices
- » Focusing on 'refuse' options that eliminate the generation of problematic waste streams in the first place
- » Education.

Potential priority waste streams

- » Textiles
- » Solar panels
- » Batteries
- » Medical and hazardous chemicals.

Creating space to showcase our commitment to the circular economy

Key enablers

- » Leveraging existing initiatives and governance frameworks
- » Supporting the creation of physical and digital spaces for the circular economy
- » Identifying future land release that can support appropriate circular economy activity.





3. Circular economy action plans

To transition the ACT towards a more circular economy, we have developed action plans with a focus on the following:

1. Procurement, skills, innovation and governance
2. Food and organics
3. Built environment
4. Consumer goods
5. Emerging and problematic waste streams
6. Creating space to showcase our commitment to the circular economy.

These action plans align with the five themes of the draft Strategy, with the addition of a procurement, skills, innovation, and governance category to capture activities that are relevant to all themes. Both written submissions received during public consultation and discussions during the industry and business workshops identified that these areas were of particular interest and an opportunity to drive circular outcomes.

The action plans seek to create opportunities for greater extended producer responsibility, grow markets for recovered materials and goods and circular business models, create high-value jobs and attract innovative new enterprises. They bring together synergies between various parts of the ACT Government, and outline the steps the ACT Government will take over the coming years to progress towards greater circularity, as well as opportunities for collaboration with industry and business. Actions contribute to the circular economy strategies of refuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, and recycle.

This transition requires an integrated approach. The Ellen Macarthur Foundation has developed five universal circular economy policy goals, which focus on embedding circular economy principles across various settings, such as economic development, climate change, biodiversity and resource scarcity. Actions in the action plans align with these goals and showcase the many opportunities for us to move beyond a traditional waste management approach and consider resources more broadly, capturing and maximising the value of materials through opportunities earlier in the product lifecycle.

The five action plan goals

1. Collaborate to create systemic change towards a circular economy
2. Enable the conditions needed to scale circular outcomes
3. Invest in innovation, infrastructure, and skills
4. Manage resources to preserve the value of goods and materials
5. Stimulate the transition to the circular design of goods and services and circular business models.



Procurement, skills, innovation and governance action plan

Government leadership on a circular economy is important to drive change. The following action plan includes actions that will be delivered by the ACT Government that contribute broadly to the circular economy and will support job creation and innovation, the growth of markets for recovered materials and goods, and circular business models.

Enable the conditions needed to scale circular outcomes

Action	Description	Lead	Timing
1.1 Develop a Circular Economy in Procurement guide.	The Circular Economy in Procurement Guide will provide guidance to support a transition to a circular economy through ACT Government procurement.	Chief Minister, Treasury, and Economic Development Directorate	Delivered in 2024
1.2 Identify potential metrics that could be used to inform the development of a wellbeing indicator for circular economy under the ACT Wellbeing Framework.	Circular economy measurement is critical to enable monitoring of progress towards circularity.	Transport Canberra and City Services	Commencing in 2024
1.3 Establish working groups for industry and business stakeholders under each strategy theme to support ongoing collaboration and engagement.	Collaboration between government, business, and industry, will be critical to identifying opportunities, overcoming barriers, and sharing knowledge to help to grow the circular economy.	Transport Canberra and City Services	Commencing in 2023

Invest in innovation, infrastructure, and skills

Action	Description	Lead	Timing
1.4 Encourage growth in the ACT circular economy business sector through the CBR Innovation Network, Priority Investment Program and Innovation Connect Grants program.	This initiative will drive knowledge based economic growth by strategically investing in proposals that diversify the economy, grow entrepreneurial ecosystems, attract responsible investment and increase the number of high-value jobs in the ACT, including in the circular economy business sector.	Chief Minister, Treasury, and Economic Development Directorate	Ongoing
1.5 Develop initiatives to skill people in circular economy practices as part of the Renewables and Sustainability Industry Plan developed under Skilled to Succeed.	This initiative will support the skills and workforce development in the circular economy sector.	Chief Minister, Treasury, and Economic Development Directorate	Delivered by 2023
1.6 Train the future workforce to embed best practice sustainability concepts, including circular economy, in selected Canberra Institute of Technology (CIT) education and training programs.	Through programs delivered by the CIT Hair and Beauty Department and the CIT Culinary and Hospitality Department, students learn circular economy concepts, including reducing food waste, promoting reusability, repurposing and recycling.	Canberra Institute of Technology	Ongoing
1.7 Explore options to develop a grants program to support grass roots action and innovation on circular economy, aligned with the themes of the Strategy.	Options for a small grants program will be explored to support social enterprises, not-for-profits, start-ups and businesses to adapt to changes in practices, to upscale current circular practices, or to test innovative ideas to grow the circular economy.	Transport Canberra and City Services	Future potential action



Food and organics action plan

Ambition: a circular economy where households, businesses and industry prioritise food waste avoidance or recovery at its highest market value, with organic materials to be returned to the natural environment.

Benefits of a circular approach for food and organics include:

- » Reducing emissions from waste and cost savings from materials and energy use
- » Operational efficiencies for hospitality businesses that avoid food waste
- » Supporting the community to make informed choices and change food waste behaviours
- » Job creation, including through the collection and processing of organics
- » Improving the quality of our soils.

The food and organics actions align mostly with reduce opportunities in the circular economy.

Collaborate to create systemic change towards a circular economy

Action	Description	Lead	Timing
2.1 Through working group participation, identify and progress food waste avoidance and behaviour change opportunities to grow the circular economy.	Food waste avoidance and behaviour change were key themes arising from the industry and business workshops. While the ACT Government has committed to managing food and organic waste at the end of the supply chain, this working group will focus on opportunities to reduce the amount of food waste within the system, such as extending the life of food across the supply chain, consumer education and behaviour change, increasing the resale or donation of surplus food, or creating operational efficiencies within the retail environment.	ACT business and industry peak bodies	Commencing in 2023

Enable the conditions needed to scale circular outcomes

Action	Description	Lead	Timing
2.2 Introduce circular economy legislation to require businesses to have food waste reduction plans and separate waste streams, including food organics.	The creation of circular economy legislation will support the avoidance and reduction of food waste by businesses, and the diversion of organic waste from landfill. This action relates to the creation of legislation, with the expectation that requirements for businesses will be introduced at a later stage.	Transport Canberra and City Services	Delivered by 2023
2.3 Facilitate opportunities for business to business connections between food businesses and ACT food waste recyclers.	It is estimated that up to 8,000 tonnes of commercial food waste will be generated each year in the ACT. Requirements to separate food waste provides opportunities for the Government to provide information to food businesses to connect them with existing food recycling business to ensure that this valuable resource is collected and recycled.	Transport Canberra and City Services	Delivered by 2024

Stimulate the transition to the circular design of goods and services, and circular business models

Action	Description	Lead	Timing
2.4 Explore options to reduce food waste generated by patient meals, which may include implementing an on-demand service or food waste reduction plans.	Implementing a new food service model would allow patients (where appropriate) to order off a menu at a time suitable to them, which allows patients to have more flexibility in their ordering and when they receive their meals, in turn reducing food waste by preparing meals only when required.	Canberra Health Services	Pilot project commencing in the second half of 2024
2.5 Support food rescue activities.	The ACT Government currently provides funding to support targeted food rescue activities across the ACT. These targeted activities enable ACT residents who are experiencing hardship to access edible food.	Community Services Directorate	Delivered in 2023/24

Manage resources to preserve the value of goods and materials

Action	Description	Lead	Timing
2.6 Complete a trial of a public food waste bin at the Suburban Land Agency Display Village in Whitlam.	A public food waste bin is the first of its kind in the ACT. This trial will evaluate its success in understanding the potential for Suburban Land Agency and the ACT Government to install more public food waste bins in the future.	Suburban Land Agency	Delivered by 2023/24
2.7 Continue the Food Organics and Garden Organics (FOGO) pilot collection service.	This pilot is servicing 5,000 households in Belconnen and is providing an opportunity to learn how to most effectively rollout a citywide household FOGO collection service.	Transport Canberra and City Services	Ongoing
2.8 Pilot composting collection for all food waste at a major event.	The ACT Government delivers a wide range of major events in Canberra, providing an opportunity to potentially pilot a collection service, not just for food organics but also for items such as compostable alternatives to single-use plastic products.	Chief Minister, Treasury and Economic Development Directorate, Community Services Directorate	Future potential action

Invest in innovation, infrastructure, and skills

Action	Description	Lead	Timing
2.9 Build a new industrial scale FOGO facility to compost at least 50,000 tonnes of organic waste from city-wide kerbside household collections and consider acceptance of commercial collections.	This new FOGO facility will turn food waste into valuable compost that can be used to improve the soils of our whole region.	Transport Canberra and City Services	Ongoing



Built environment action plan

Ambition: a circular economy prioritising reuse, recovery and recycling in our growing built environment, with influence to develop innovative and adaptive building and planning policies and practices.

Benefits of a circular approach for the built environment include:

- » More efficient use of materials while creating urban areas that are compact, efficient and liveable
- » Opportunities to rethink the design and maintenance of infrastructure and capitalise on the value of existing assets through new technologies and innovation
- » Potential economic savings and a reduction in greenhouse gas emissions
- » Opportunity to reduce our reliance on natural resources
- » Supporting greater resilience in a changing climate and future-proof our city through purposeful design of the built environment.

The built environment actions align mostly with reduce and reuse opportunities in the circular economy and reflect that the ACT Government has the ability to strongly influence the work of civil construction through procurement processes.

Collaborate to create systemic change towards a circular economy

Action	Description	Lead	Timing
3.1 Through working group participation, identify, discuss and progress opportunities to build circular economy knowledge within the built environment sector.	Knowledge sharing was identified as the highest priority area to address from the industry and business workshops. Stakeholders also raised the need for government to set the direction for the sector on circular economy. The delivery of ACT Government actions will start to provide this signal to industry and business.	ACT business and industry peak bodies	Commencing in 2023

Stimulate the transition to the circular design of goods and services, and circular business models

Action	Description	Lead	Timing
3.2 Provide design guidance in the planning system on the circular economy through the development of an Urban Design Guide.	As part of planning system reform, work will progress to establish urban design guidance which incorporate circular economy practices such as sustainable procurement, adaptive reuse in the construction of new buildings, using prefabricated or modular building components, up-cycling and embodying carbon.	Environment, Planning and Sustainable Development Directorate	Commencing in 2023
3.3 Update the Major Projects Canberra design brief process to include a sustainability report (or equivalent) requirement for major infrastructure.	This action will incorporate consideration of circular economy initiatives throughout a project's development and construction, including requirements for designers to consider circular economy opportunities when designing and selecting materials for ACT Government major projects.	Major Projects Canberra	Delivered by 2024
3.4 Review and update the ACT Municipal Infrastructure Design Standards and Technical Specifications to encourage greater use of recycled materials and increase sustainability outcomes in the design and construction of civil and open space assets, and where suitable, align with other jurisdictions.	The initial focus of this work will look into the use of recycled content in asphalt and concrete materials, through a review and evaluation of previous trials and consultation with industry. This will then culminate in adopting recycled content limits within ACT Municipal Infrastructure Design Standards and Technical Specifications to align those same limits adopted in other jurisdictions' standards and specifications.	Transport Canberra and City Services	Ongoing
3.5 Undertake trials to evaluate the suitability of innovative new materials and products that contain recycled content in civil assets. Where products/materials are deemed suitable, allow for and encourage their ongoing use in the ACT.	Trial, review and evaluate new innovative asphalt and concrete products that contain new forms of recycled content, such as soft plastics, and a higher proportion of recycled content. Monitor ongoing research and trials being undertaken in ACT and other jurisdictions, and ensure future updates are made to the ACT Municipal Infrastructure Design Standards and Technical Specifications to align with future updates of specifications by other jurisdictions.	Transport Canberra and City Services	Ongoing
3.6 Explore opportunities to incorporate circular design principles during the design and construction of Light Rail Stage 2.	The Light Rail Stage 2 project will investigate opportunities to: (a) prioritise recycled and reused materials during construction, where suitable; (b) collect data on material types, quantities and origin to inform future recycled content or reuse targets; (c) enable end-of-life reuse or recyclability in the selection of systems and materials used; (d) make excess waste and materials available for reuse; and (e) reduce materials and associated end-of-life waste during design and construction.	Major Projects Canberra	Ongoing
3.7 Facilitate the greater use of recycled material for road maintenance and construction.	This action aims to continue to increase the use of recycled content such as truck tyres, crushed glass, recycled asphalt pavement, soft plastics and toner cartridge powder in road maintenance and construction activities such as road resurfacing, rehabilitation and new construction works where appropriate and deemed safe to implement.	Transport Canberra and City Services, Suburban Land Agency, Major Projects Canberra	Ongoing

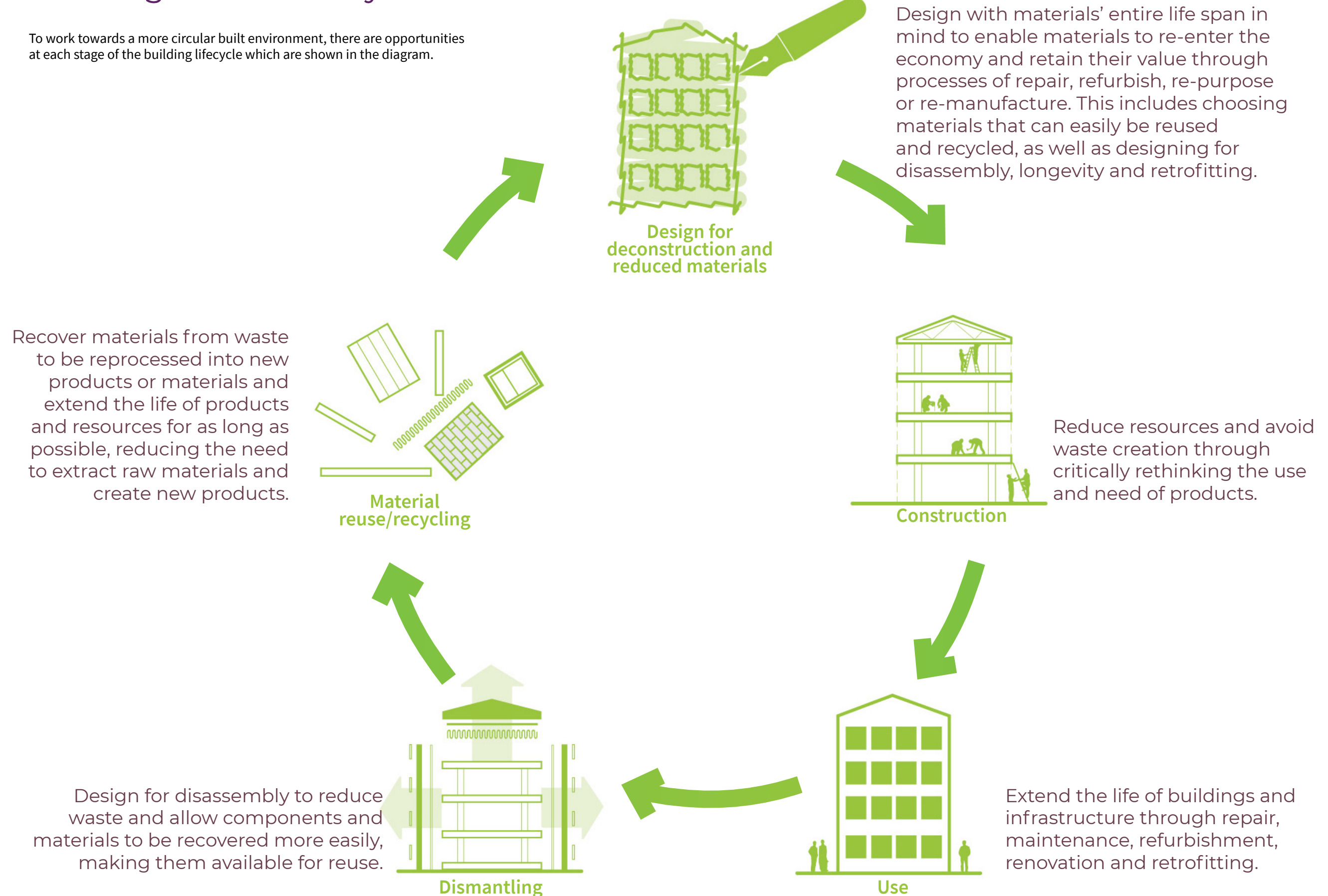
Action	Description	Lead	Timing
3.8 Explore innovative circular economy initiatives as part of North Wright Compact Housing design and construction.	Research is being undertaken for the North Wright Compact Housing project to use less materials through compact design, fewer virgin materials and more re-used building components for greater resource efficiency. In Stage 2 of the development, prefabrication is being considered an alternative to in-situ construction as part of designing for disassembly and dematerialisation.	Suburban Land Agency	Commencing in 2023 and delivered by 2026
3.9 Explore ways to encourage circular design through a circular house design guide for residents in new developments.	The design guide will provide details on how residents can design a circular home by considering what materials are made of, where they have been sourced, how they have been transported and what is involved with their installation.	Suburban Land Agency	Delivered by 2023/24
3.10 Encourage circular economy and resource use considerations in land sales undertaken by the City Renewal Authority and advocate for circular economy considerations for proposed developments within the CRA precinct.	Using a Checklist for Sustainability Initiatives in Land Sales, the City Renewal Authority will include relevant circular economy principles in land release packages and land sales contracts where appropriate. The CRA advocates for circular economy principles to be considered in development applications where appropriate through their role as a referral agency.	City Renewal Authority	Commencing in 2023
3.11 Encourage circular economy principles through the Sustainable Design and Delivery Checklist for City Renewal Authority public realm projects.	Using a Sustainable Design and Delivery Checklist, the City Renewal Authority will incorporate relevant circular economy principles where appropriate throughout the project design and delivery process, such as in the Statement of Requirements for design and construction tenders.	City Renewal Authority	Commencing in 2023
3.12 Develop circular economy principles in building policy through the development of a 10-year pathway to progress towards world's best practice in climate ready and environmentally sustainable buildings.	Establish a roadmap to progress the Territory towards sustainable and climate resilient buildings. The roadmap will consider and develop policy to incorporate circular economy practices that encompass construction techniques, materials, and embodied carbon in the building process.	Environment, Planning and Sustainable Development Directorate	Commencing in 2023

Manage resources to preserve the value of goods and materials

Action	Description	Lead	Timing
3.13 Explore circular economy business ideas in future Suburban Land Agency development sites.	Consider opportunities for circular economy businesses as part of the Horse Park Revitalisation Strategy, such as an urban timber log and recycling yard, and a share and repair café.	Suburban Land Agency	Commencing in 2023
3.14 Consider initiatives around sustainable construction materials, resource recovery, flexible design and materials selection and support the share/repair economy as part of the sustainability approach for strategic development delivery projects.	As part of implementing sustainability plans for key sites, circular initiatives such as resource recovery, flexible design and materials selection will be considered during the design of strategic development delivery projects. Where relevant, places that help the community to connect with the share/repair economy will be considered.	Suburban Land Agency	Future potential action
3.15 Explore options for incorporating circular economy principles of adaptive reuse and refurbishment as part of the design stage of the Canberra Theatre Redevelopment project.	This project involves designing and constructing a new 2,000-seat theatre and upgrading the existing Canberra Theatre Centre, which presents an opportunity to demonstrate a circular economy.	Major Projects Canberra; Cultural Facilities Corporation	Final Preliminary Sketch Plan Report to be delivered by 2024
3.16 Explore options to establish a Circular Resource Hub for Suburban Land Agency built form projects.	The Suburban Land Agency has identified a depot for storing materials. Callouts are currently being undertaken for recycled and salvaged materials across ACT Government, to be reused in Suburban Land Agency's landscape and built-form projects.	Suburban Land Agency	Commencing in 2023
3.17 Develop an urban wood reuse plan for trees removed from public land.	The reuse of urban forest material (by-product) at end of life has the potential to transform what is currently a 'waste stream' for the Territory into a 'value stream'. Higher value salvaged wood can be processed into sawn timber for use by local schools, community organisations, and businesses, while low value urban wood is processed into new products such as soil and compost, soft fall mulch, bio-char and wood pellets.	Transport Canberra and City Services	Commencing in 2023

Building for circularity

To work towards a more circular built environment, there are opportunities at each stage of the building lifecycle which are shown in the diagram.





Consumer goods action plan

Ambition: a circular economy where improved design and management of consumer goods keeps materials in circulation, achieved through collaboration with all levels of government, industry, local businesses and the Canberra community.

Benefits of a circular approach for consumer goods include:

- » Reducing unnecessary consumption, materials use, and impacts from the production of these items
- » Supporting our transition from single-use to reusable items, and the elimination of unnecessary or environmentally harmful packaging
- » More responsibility being placed on the creators and sellers of consumer goods through greater Extended Producer Responsibility
- » Encouraging economies of scale, reducing free riders, and facilitating opportunities for harmonising management across jurisdictions through regulated national product stewardship arrangements.
- » Supporting innovation and job growth through the creation of new markets for recycled consumer goods.

The consumer goods actions contribute mostly with repair, rethink, reduce and recycling opportunities in the circular economy.

Collaborate to create systemic change towards a circular economy

Action	Description	Lead	Timing
4.1 Through working group participation, identify and progress opportunities for ACT stakeholders to influence certain stages of the circular economy for electronic goods and textiles (e.g. design, production, distribution, and use).	E-waste and textiles were raised as potential priority focus areas by industry and business stakeholders at the consumer goods and emerging and problematic waste streams workshops. This action will seek address these items before they become waste, through approaches such as behaviour change/consumer awareness, and extending the life of these products through reuse, sharing and repair.	ACT business and industry peak bodies	Commencing in 2023

Enable the conditions needed to scale circular outcomes

Action	Description	Lead	Timing
4.2 Continue to advocate nationally for consumers' right to repair.	The ACT Government raised concerns with consumer affairs ministers across all Australian jurisdictionss in relation to the repair of consumer products becoming increasingly difficult. This resulted in the Productivity Commission's 'Right to Repair' inquiry in 2021, examining the lack of competition in repair markets and lack of certainty for consumers about repairability and costs. The ACT Government awaits the response from the Commonwealth Government on the Inquiry report to inform national progress on informing consumers' right to repair.	Justice and Community Safety and Chief Minister, Treasury and Economic Development Directorate	Ongoing
4.3 Investigate the potential to expand the scope of eligible containers in the ACT Container Deposit Scheme, with the intention of harmonising ACT's Container Deposit Scheme with other jurisdictions.	The ACT Government has consulted on expanding Canberra's container deposit scheme in line with the Environment Ministers' agreement that all states and territories will harmonise container types, refund amounts, labelling and community education across jurisdictions by 2025.	Transport Canberra and City Services	Delivered by 2025
4.4 Create circular economy legislation for businesses to have separate collections for co-mingled recycling.	The creation of circular economy legislation will support the diversion of co-mingled recycling from landfill. This action relates to the creation of legislation, with the expectation that requirements for businesses will be introduced at a later stage.	Transport Canberra and City Services	Commencing in 2023
4.5 Support a reformed packaging system that is industry funded, focuses on avoidance and designing out waste, and has a centralised scheme administration under a Commonwealth legislative framework.	The Commonwealth Government completed an independent legislative review of Australia's national co-regulatory framework for packaging in 2021, which found that the current system is not fit-for-purpose and reform is needed to improve environment outcomes for packaging. Following this review, Environment Ministers agreed to reform the regulation of packaging.	Transport Canberra and City Services	Ongoing

Stimulate the transition to the circular design of goods and services, and circular business models

Action	Description	Lead	Timing
4.6 Consider options to trial events or activation programs that encourage and promote the adoption of circular economy principles.	The City Renewal Authority will seek to trial events or activation programs that adopt circular economy practices, or encourage the community to adopt circular economy practices, such as plastic-free events or a tool lendery or 'share and repair' program at the Haig Park Community Centre.	City Renewal Authority	Commencing in 2023
4.7 Develop a long-term plan for phasing-out problematic and unnecessary single-use plastic items and transitioning to more sustainable alternatives, in line with circular economy principles and legislation.	The ACT Government has introduced bans on single-use plastics in three tranches. Commencing in 2023 work will be undertaken to prepare a long-term plan to set the future direction of phase outs, potential timings and a criteria by which to select items for phasing out, aligned with the circular economy. This will also provide greater certainty to business and industry on the proposed items, scope and timing of future bans.	Transport Canberra and City Services	Commencing in 2023

Manage resources to preserve the value of goods and materials

Action	Description	Lead	Timing
4.8 Continue to collect and recycle offcut fabric from CIT Fashion courses for reuse by the gym equipment sector for the manufacture of punching bags.	Waste fabric from the CIT Fashion course is reused and recycled, diverting it from landfill.	Canberra Institute of Technology	Ongoing
4.9 Scope the establishment of a textiles hub in the ACT.	A textiles hub would help to support local designers, crafts people, and industry to realise circular economy opportunities in relation to textiles as well as educate the broader community on circular economy possibilities.	Transport Canberra and City Services	Future potential action
4.10 Support reusable facilities at Mugga Lane and Mitchell Resource Management Centres.	The ACT Government will be undertaking a procurement to renew the services. The reusable facilities provide a safe and convenient location for the community to drop off and purchase unwanted reusable items. This will contribute to resource recovery and diversion of materials from landfill, and improve the community's capacity to participate in the circular economy.	Transport Canberra and City Services	Commencing in 2024
4.11 Evaluate the clothing charity bin trial at Mugga Lane Resource Management Centre to understand the potential for future expansion.	The ACT Government has extended the clothing charity bin trials through to December 2023, enabling an opportunity to evaluate the service including the identification of recommendations, to then inform decision-making around its potential future expansion.	Transport Canberra and City Services	Delivered by 2023



Emerging and problematic waste streams action plan

Ambition: a circular economy where industry works proactively to prevent the creation of problematic waste, with nationally regulated product stewardship schemes in place in instances of industry inaction for whole-of-life product management.

Benefits of a circular approach for emerging and problematic waste streams include:

- » Avoiding lock-in effects from design decisions that impact opportunities to further cycle materials later in their life
- » Innovation in product design and manufacturing
- » Supporting the creation of markets and jobs associated with recovered materials.

The emerging and problematic waste streams actions align mostly with rethink, reduce, reuse and recycling opportunities in the circular economy.

Collaborate to create systemic change towards a circular economy

Action	Description	Lead	Timing
5.1 Through participation in a working group identify and progress opportunities for ACT stakeholders to influence certain stages of the circular economy for lithium-ion batteries (e.g. design, production, distribution, use, and recycling).	Batteries were raised as a potential priority focus area by industry and business stakeholders at the emerging and problematic waste streams workshop, and managing lithium-ion batteries at their end-of-life is becoming increasingly challenging. This action will seek to identify and address barriers associated with managing this waste stream and identify opportunities such as improved product design to increase the circularity of these batteries.	ACT business and industry peak bodies	Commencing in 2023

Enable the conditions needed to scale circular outcomes

Action	Description	Lead	Timing
5.2 Advocate for nationally regulated product stewardship schemes and opportunities to design out waste for solar PV systems, general electrical appliances and medium and large batteries.	There are opportunities for continued advocacy by the ACT on regulated product stewardship schemes and better design for these waste streams as part of the Commonwealth Government's work on establishing a regulated product stewardship scheme for solar panels and household electronics.	Transport Canberra and City Services	Ongoing
5.3 Ensure responsible decommissioning requirements are created, agreed to, and met for all ACT Government-owned and ACT Government financially supported batteries through the Big Canberra Battery project.	The growing investment by both Government and industry in battery systems in the ACT will lead to a higher volume of battery waste in the future when these assets are decommissioned. However, since a significant portion of battery materials can be reused or recycled, end-of-life treatments can ensure that these materials are effectively reused within the economy.	Environment, Planning and Sustainable Development Directorate; and Chief Minister, Treasury and Economic Development Directorate	Ongoing
5.4 Explore legislative options to encourage product stewardship in the ACT and address free riders in product stewardship schemes.	This work will look at options to strengthen product stewardship arrangements in the ACT to reduce free riders (i.e. businesses or organisations that may benefit from a product stewardship activity, without contributing to the cost of developing and operating them).	Transport Canberra and City Services	Delivered by 2025

Manage resources to preserve the value of goods and materials

Action	Description	Lead	Timing
5.5 Explore options for a potential legislative ban on e-waste to landfill.	The potential to ban e-waste from landfill will be explored for products where there are alternative pathways in place, such as existing product stewardship schemes.	Transport Canberra and City Services	Commencing in 2024
5.6 Investigate opportunities to utilise local or national battery reuse and recycling schemes to dispose of electric bus and light rail vehicle batteries at the end of useful life.	Opportunities will be investigated to utilise local or national reuse and recycling schemes at end of useful life for electric bus and light rail vehicle batteries. Australian battery recycling options and/or reusing batteries no longer suitable for powering electric buses and light rail vehicles are expected to emerge and mature over time.	Transport Canberra and City Services; and Major Projects Canberra	Commencing in 2023



Creating space to showcase our commitment to the circular economy action plan

Ambition: to take a regional approach to grow a circular economy that encourages cross-border collaboration and identifies land for enterprises to establish and innovate close to the source of waste generation in the ACT and wider region.

Benefits of creating space for the circular economy include:

- » Ensuring that space is reserved for circular economy activities and services
- » Opportunities for cross-border collaboration and the scaling of circular economy initiatives within the region
- » Providing space to scale up, collect and store small amounts of feedstock and manage the safe processing of waste resources to develop a strong regional economy.

Collaborate to create systemic change towards a circular economy

Action	Description	Lead	Timing
6.1 Work with the Canberra Region Joint Organisation (CRJO) and NSW Government through the ACT-CRJO MoU and ACT-NSW MoU for Regional Collaboration to identify opportunities for broader regional cooperation on waste management and circular economy.	This action will leverage existing commitments from the ACT Government that support cross-border engagement on a circular economy.	Chief Minister, Treasury and Economic Development Directorate	Ongoing

Stimulate the transition to circular design of goods and services, and circular business models

Action	Description	Lead	Timing
6.2 Explore potential location/s for a future circular economy innovation precinct in the ACT that brings together small and large companies and non-profit organisations and provides a physical presence for an innovation ecosystem focused on the circular economy.	This will include investigating locations that allow for circular economy to co-locate with start-ups, research institutions and established businesses in a hub to promote collaboration and innovation, with appropriate zoning and transport access routes.	Environment, Planning and Sustainable Development Directorate	Future potential action

Manage resources to preserve the value of goods and materials

Action	Description	Lead	Timing
6.3 Build a new Materials Recovery Facility (MRF) to improve the quality and capacity of recycling in the ACT.	New technology will deliver the capacity to sort, separate, and process materials for the whole Canberra region, creating higher quality resources with higher value uses, including remanufacturing.	Transport Canberra and City Services	Delivered within 2025 to 2026
6.4 Finalise the ACT strategic waste infrastructure analysis.	This analysis aims to identify waste management and resource recovery infrastructure needed into the future to facilitate sustainable landfill diversion and resource recovery.	Transport Canberra and City Services	Delivered by 2023
6.5 Explore location/s for future potential waste facilities that support reuse, repurposing and recycling, and where identified, reserve suitable land.	Investigate locations for waste facilities that are appropriately zoned, and allow for the range of waste reuse, repurposing and recycling facilities identified in the Circular Economy Strategy that are isolated from sensitive users and protect/maintain buffer zones.	Environment, Planning and Sustainable Development Directorate	Ongoing
6.6 Finalise the Eastern Broadacre Strategic Assessment.	The Eastern Broadacre Strategic Assessment will identify potential areas for future employment and industrial uses including circular economy activities.	Environment, Planning and Sustainable Development Directorate	Commencing in 2023



4. Making it happen

Collaboration is vital for the transition towards a circular economy – not one government, industry, business or community member can achieve this on their own. A key part of our success will be the way we approach collaboration; we must consider how to move beyond the typical top-down approach and accelerate our transition by working together, aligning stakeholders and encouraging everyone to move beyond traditional roles and responsibilities in a cooperative way.

Across Canberra, government, businesses, industry and the community will drive the transition by putting circular solutions into practice. Businesses drive innovation and provide great opportunities to reduce costs and build resilience in supply chains by adopting a more circular approach. Tertiary education institutions, including universities and the vocational education and training sector will be integral to skill our future circular economy workforce, while partnerships with the research and innovation sector and industry will be critical to driving effective reuse and recycling of materials, improve product design and materials recovery processes.

This Strategy and Action Plan is structured around a vision and key themes to progress circular economy. It is only the starting point of a journey towards our longer-term goal of Canberra becoming a circular city through a collaborative approach with all stakeholders. As the circular economy matures in the ACT, in the future, we may explore opportunities to expand the focus to other areas of the economy that could benefit from greater circularity beyond the themes identified in this Strategy.

To achieve the vision and ambition identified for each theme, action plans have been developed that guide implementation over the coming years. This includes future potential actions that are subject to future Government consideration and may have budget impacts. Development of the circular economy indicator as part of the ACT Wellbeing Framework provides an opportunity to monitor our progress. As the circular economy matures in the ACT, there may be further opportunities to utilise a range of wellbeing indicator datasets to evaluate the success of a circular economy. In addition, waste audits, which provide an analysis of the waste composition and contamination rates will help us track the prevalence of certain waste types in the ACT, such as emerging and problematic waste and could inform future decision making.

