



**CONSERVATION  
COUNCIL** ACT REGION

Submission to ACT Government

## Draft ACT Circular Economy Strategy

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December 2022

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for living sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

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## Introduction

The Conservation Council ACT Region welcomes the opportunity to provide feedback to the ACT Government on the Draft Circular Economy Strategy 2022–2025 ‘Building Canberra’s Circular Economy’.

In September 2022, the Council hosted the first ever CBR360 Circular Economy Symposium because we saw the need to provoke a conversation about the purpose, role and guiding principles of the Territory’s economy, as well as showcase the enterprises and individuals leading the innovations. The ACT Government has put effort over many years into reducing, diverting and managing “waste”. The NoWaste campaign, the Container Deposit Scheme, food and organics collection service, bulky waste collection service, the staged phase-out of single-use plastics are all good initiatives to attempt to divert materials from landfill. However, the plateauing of recycling rates and continued dumping of waste to landfill highlights the need to elevate the city’s approach above “waste management”.

A truly circular economy is more than simply achieving zero waste to landfill. It requires a transformation not only of waste management, but of our entire philosophy about the relationship of human enterprise to the natural systems that support us and that we are intrinsically a part of. Our bodies constantly exchange molecules and energy with the environment we inhabit, the same molecules and energy that were and become our air, food, water, housing, clothing, plants and animals, wind, rain, oceans and mountains. We are a part of the natural world and its rules do apply to us.

*“What you people call your natural resources, our people call our relatives”, Oren Lyons, faith keeper of the Onondaga.<sup>1</sup>*

Western culture has allowed the “economy” to be prioritised as if it is a standalone entity, and the natural world, and indeed humans themselves, to be reduced to “resources” to be exploited in a system where “wealth” is determined by applying a monetary value to the exchange of “goods” and services. Success, social status and political power have become closely tied to the amassing of “assets” and “capital”. “Goods” have become quite the opposite, manufactured from natural materials harvested at massive scale and toxic processes that poison the planet’s living systems. The rules of the economy evolved to prioritise financial gain above all else, without regard for the consequences.

The adoption of a “circular economy” is both a recognition that our economy is not working for either us or our planet, and an opportunity to fundamentally re-think the purpose of an economy and the values that underpin it. The Strategy could be more explicit about these considerations.

The Conservation Council concedes that the ACT faces significant challenges in implementing circularity within the Territory because most of our goods are imported from elsewhere in Australia and around the world. However, the Territory has also shown great creativity in overcoming such obstacles, such as its reverse auction contracts for renewable energy and, more recently, amending the Climate Change Act to enable future regulation to phase out gas. The ACT Government needs to implement whatever policy and legislative settings it can at the Territory level to prevent pollution being created or brought into the Territory, and advocate for paradigmatic changes at the national level.

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<sup>1</sup> In McDonough, W & Braungart, M, 2002, *Cradle to cradle: remaking the way we make things*, North Point Press, New York

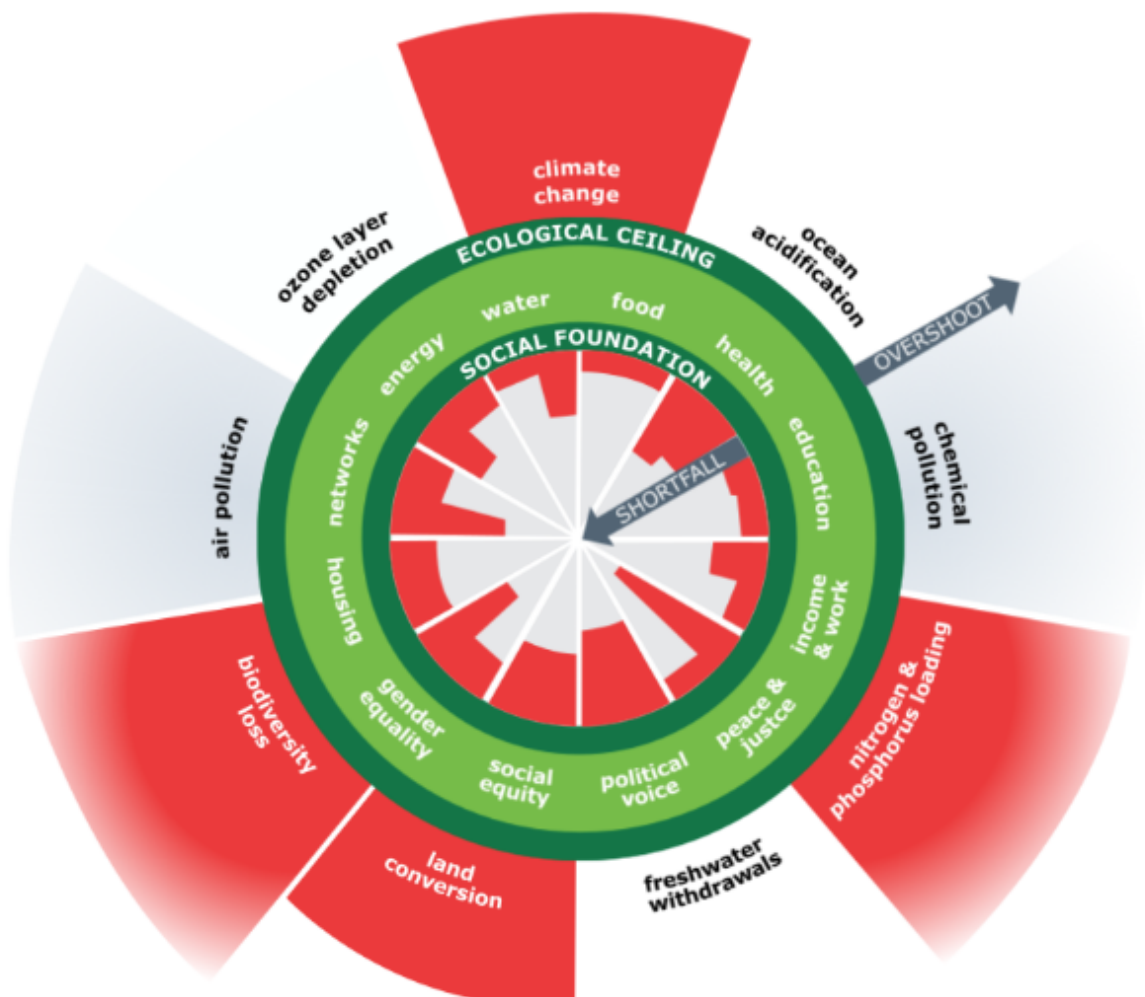
## Strategic objectives

### Academic framework and existing examples

The Strategy includes a diagram of the “stages of the circular economy” and, pages later, the “waste hierarchy”. It also says on page 1 that the Government is “leveraging the experiences and lessons learned from other cities both here in Australia and around the world”. It would be useful to also include more explanation of the academic frameworks and examples that the Government is referencing in creating this Strategy.

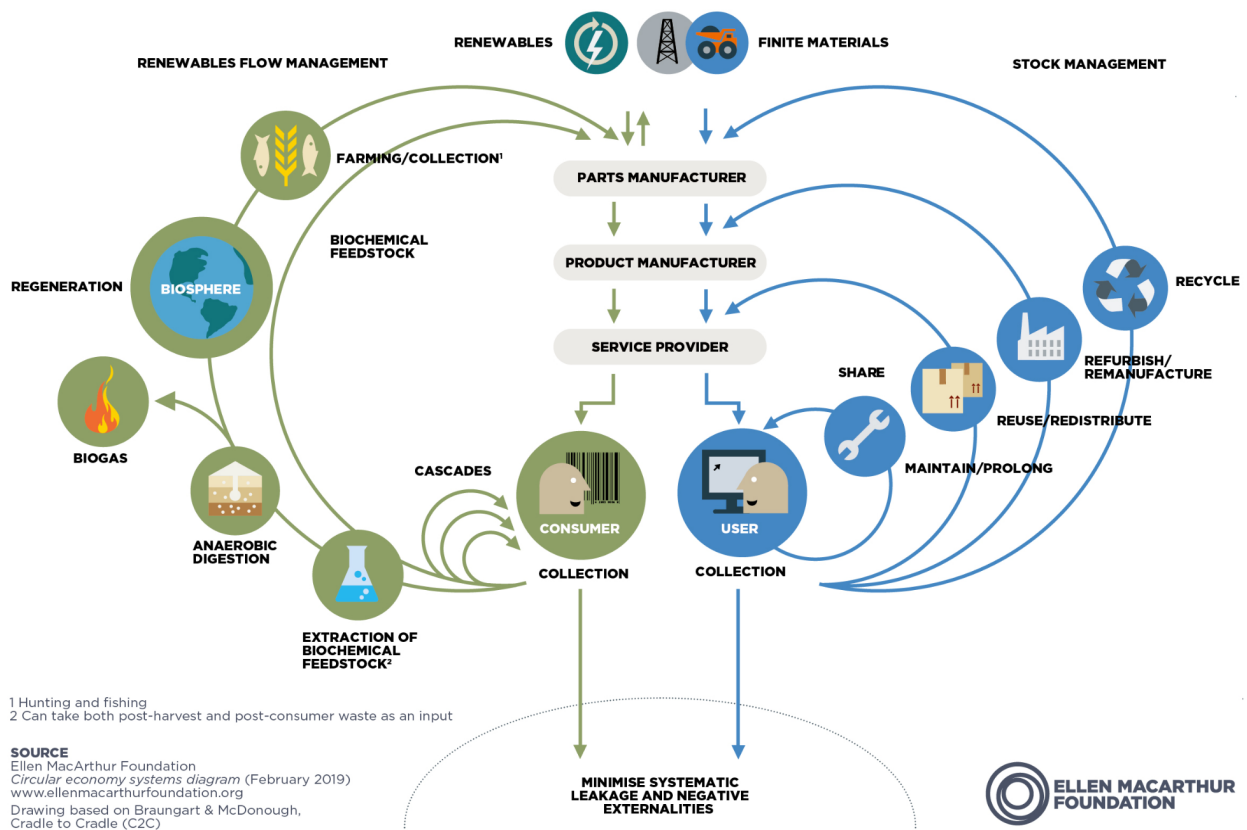
UK economist Kate Raworth’s “doughnut economics” is a particularly visually striking model that very effectively embeds the economy within social and planetary boundaries (below),<sup>2</sup> providing the context to redefine the paradigm of our economy.

### The Doughnut of social and planetary boundaries (2017)



<sup>2</sup> Kate Raworth, n.d., ‘What on Earth is the doughnut?’, <https://www.kateraworth.com/doughnut/>

The Ellen Macarthur Foundation features an excellent visual representation of a circular economy, demonstrating twin cycles of renewable biological materials and finite technical stocks reminiscent of a butterfly (below).<sup>3</sup>



Europe's Circular Economy Action Plan is the largest scale plan internationally, including targeting how products are designed and encouraging sustainable consumption.<sup>4</sup> There is also plenty of academic research about how to approach the challenges of becoming a zero-waste city through behaviour change, product stewardship, 100% recovery of resources and supporting legislation.<sup>5</sup>

## Extending corporate social and environmental responsibility

The Conservation Council supports any initiatives to “grow extended producer responsibility”. Indeed, producers must be required to take responsibility for everything they produce. No business should be allowed to create products that cause harm to people or the environment.

<sup>3</sup> Ellen MacArthur Foundation, n.d., 'The butterfly diagram: visualising the circular economy', <https://ellenmacarthurfoundation.org/circular-economy-diagram>

<sup>4</sup> European Commission, n.d., 'Circular economy', [https://environment.ec.europa.eu/topics/circular-economy\\_en](https://environment.ec.europa.eu/topics/circular-economy_en)

<sup>5</sup> Zaman, A & Lehmann, S, 2011, 'Challenges and opportunities in transforming a city into a 'zero waste city'', Challenges, vol 2, pp73–93, [https://www.researchgate.net/publication/257409801\\_Challenges\\_and\\_Opportunities\\_in\\_Transforming\\_a\\_City\\_into\\_a\\_%27Zero\\_Waste\\_City%27](https://www.researchgate.net/publication/257409801_Challenges_and_Opportunities_in_Transforming_a_City_into_a_%27Zero_Waste_City%27)

The ACT's CE Strategy lays out a catalogue of existing circular initiatives and expansions already underway locally or at national level, such as the National Waste Policy Action Plan 2019. The Strategy also aligns with other ACT Strategies for waste, transport, climate change etc. The Circular CBR (2019) and Scope 3 emissions (2021) reports by the ACT Commissioner for Sustainability and the Environment, as well as the Wellbeing Framework should also inform this Strategy.

However, there appears to be little consideration of the legal, political, policy and economic settings that enable and perpetuate the current linear approach and form obstacles to circularity. In other words, why do producers continue to make and sell products that are harmful? For instance, the *Corporations Act 2001* makes zero mention of “environment”, “harm”, “pollution” or the natural world, “air”, “water”, “soil”, or even natural resources. The *Commonwealth of Australia Constitution Act 1977* says lots about taxes and trading but makes only one mention of water, suggesting an absence of values associated with environmental protection.

The value provided by the community sector in attempting to remediate the problems created by industry must be appreciated and appropriately resourced. Monash University has co-designed a draft set of National Reuse Measurement Guidelines to enable a standardised approach to collecting, interpreting and reporting on reuse impact data. This project will “build understanding of the role of charitable and community sector organisations in the reuse of products and materials and associated employment and training”.<sup>6</sup> Charitable Recycling Australia is instrumental in advocating for recognition of this sector.

Timothy Miller, for instance, did not create Lids4Kids because he wanted to make money from collecting plastic lids: he founded the social enterprise because the drinks and recycling industries had failed to deal with its own pollution. Similarly, Liz Kasell founded REDcycle because she was horrified about soft plastic pollution. A decade later and the country is still floundering under mountains of plastic waste while industries continue to pump it out. There is abundant evidence of negative social and environmental impacts of production and consumption yet these activities are permitted to continue and society scrambles to keep up with solving the problems. It should not be the responsibility of taxpayers to fund the clean-up of pollution created by industry when taxpayers have no direct control over production decisions.

We need as a society to stop *creating* the problems rather than trying to remedy them after the fact. This requires paradigmatic change, not tinkering at the edges.

The Council recommends the ACT Government partner with the Territory's research institutions to conduct analysis of financial and regulatory settings that favour linear production, and identify alternatives that the ACT Government can implement locally or advocate for nationally. Systems analysis using causal loop diagrams is an effective method of mapping stocks, flows, drivers and effects. Then as a Territory we need to be bold and implement the systemic level changes to stop pollution immediately. People are innovative and adaptable. Safe alternatives already exist. Legislate to prevent harmful products and businesses will adapt. If some can't or won't, then perhaps they should not be in business.

Advocate for revision of the Corporations Act and other relevant legislation to:

- deprioritise returns to shareholders

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<sup>6</sup> Monash University, n.d., Measuring the benefits of reuse in the circular economy, <https://www.monash.edu/mada/research/measuring-the-benefits-of-reuse-in-the-circular-economy>

- mandate social and environmental responsibility in objectives of corporations and directors' responsibilities
- Cap executive salaries and bonuses
- Require a social and an environmental representative on all company boards
- Require contribution to social and environmental enterprises (directly or via a scheme/fund/levy) so they can be securely funded to provide services (rent premises, pay staff, advertise services, buy equipment etc)
- Require all registered companies to report on CS&ER
- Require all registered companies to report on
  - implementation of extended producer responsibility activities (eg participation in Container Deposit Schemes, take-back programs, repair services, reuse),
  - Percentages of recycled and virgin materials in goods & packaging,
  - Recyclability of all products & packaging and elimination of problematic materials
  - Waste and pollution minimisation measures
- Enable and encourage cooperative and distributive business models

To the extent possible, implement all of the above for ACT businesses.

## **Grow markets for recovered materials and goods**

Demand-side measures such as telling consumers to choose sustainably produced products has only a very limited effect on producers, doing little to stem the tide of mass production. Environmentally friendly products are often more expensive or harder to find or simply not available, and consumers will default to whatever is most convenient and familiar.

Collecting and processing post-consumer materials is excellent for diverting them from landfill, but unless producers are required to incorporate them into new products, they too will continue to source whatever materials are cheapest and most convenient. For example, Jessica Wundke from Green Industries SA said the high demand from the food and wine industry for the composted end-product was critical to the success of South Australia's food and organics program.<sup>7</sup>

The quality of recovered materials is also critical: manufacturers accustomed to clean, clear virgin plastics, for instance, don't want to or cannot make use of the murky, grey, contaminated plastic feedstock that comes out of conventional co-mingled collection and mechanical recycling services. We also need to be clear that much of what is called "recycling" is in fact down-cycling. Genuine recycling preserves the quality of the materials for reuse in the same purpose, such as glass bottles or windows being remade into new glass bottles or windows. Whereas grinding mixed glass to use as trench lining or roadbase means that material can never again become a bottle or window and new silica sand needs to be extracted from the environment to fulfill the demand for glass (although perhaps the trench lining is more valuable in avoiding demand for virgin sand). Unless the quality of recycled materials is vastly improved, eventually every piece of plastic, for instance, is destined to end up in landfill or as roadbase and extraction of raw materials will continue.

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<sup>7</sup> Manfield, E, 2022, 'Australian food organic waste target abandoned by the federal government', ABC News, 1 December, <https://www.abc.net.au/news/2022-12-01/food-waste-target-abandoned-by-federal-government/101707458>



Government needs to collaborate with the research community and industry to constantly innovate for better recycling technologies. For example, Samsara Eco uses biologically derived enzymes, developed in partnership with the ANU, to recycle a wide range of plastics (coloured, mixes, hard and soft PET) at the molecular level, meaning that the same polymer can be endlessly recycled. See also discussion regarding problematic wastes.

### *Regulation is required*

Voluntary industry standards, codes or schemes for recovered materials can be unambitious, slow to be effective, don't capture all producers and also suffer from a "free-rider" effect where some producers don't contribute but take advantage of the efforts of others. This also undermines consumer confidence about the veracity of individual participants and the overall effectiveness of the scheme.

Requiring participation/certification and financial contribution helps to properly fund the scheme, including auditing and compliance, which then gives consumers confidence that products are being produced responsibly. Penalties for non-compliance need to be substantial enough to incentivise compliance and not just be absorbed as a cost of doing business.

Two particular standards that should be legislated across all product categories are targets of 100% recycled materials (i.e. zero virgin materials, or as close as practicable) and zero waste (i.e. 100% diversion from landfill). This would drive the market for recovery and recycling of materials, and foster product design for 100% recyclability, eliminating problematic materials.

A market for recovered materials would create business and employment opportunities, including for social enterprises. "Waste management" drop-off facilities could become hubs of small enterprises: sorting, fixing, dismantling and distributing materials to a variety of processors. The Government should also consider mining landfill to recover useful materials.<sup>8</sup>

While people and businesses are innovative and adaptable, it is also important to understand what the pain points will be, particularly for small businesses and vulnerable households. Develop supports for them to assist the transition.

## Focus areas

### Food and organics

The Conservation Council supports the rollout of "FOGO" collection across the city for composting and return to the city's parks, gardens, farms and landscaping. The Government must ensure that the ACT's organic waste does not get exported to feed "waste to energy" incinerators but is properly composted into high-quality compost that is safe to apply to gardens and agricultural crops. The product should be available for Canberrans to purchase, ensuring benefit is returned to the community. The Government could also support home and community composting and wormfarms by partnering with and funding local organisations Capital Scraps Composting and Global Worming and interstate companies like SubPod, so that people see the direct benefit of diverting their food scraps to their own and local gardens.

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<sup>8</sup> Landfill Solutions, n.d., 'Landfill mining, what are the benefits?', <https://landfillsolutions.eu/landfill-mining-what-are-the-benefits/>

The Council also supports the mandating of food waste reduction plans and separation of food waste in commercial food businesses.

Tonnes of food waste is created at supermarkets and at home due to the labels of “Use by” and “Best before” for products that are still edible beyond the marked date. Some UK supermarket chains are replacing “best before” with “no date helps reduce waste”.<sup>9</sup> Revising label requirements in Australia would help to reduce food waste: perhaps wording like “Look/sniff/taste for freshness” would be more appropriate.

Pricing food to embody the full costs of production may be a tool worth considering to increase people’s appreciation of its value and reduce wastage. Bringing more of the “imperfect” looking (but perfectly edible) produce into stores at a different price point (but without the current plastic bulk-pack packaging) would offer shoppers the choice and alleviate cost-of-living pressures.

Plastic wrapping is frequently used to preserve the freshness of foods, keeping them edible for longer which should reduce wastage. Government should continue to phase out problematic plastics such as netting which does nothing for preservation and is not recyclable. Where plastics are needed, they should be replaced with compostable alternatives. Where this is not viable, plastics should be made from recycled plastics.

While many food outlets have formal arrangements with charity collection services such as OzHarvest, much edible food ends up in skips destined for landfill. Food outlets could offer discounts on excess foods, or they could be collected by shopping centres and given away rather than have people take risks with “dumpster diving”. For food that is not safe to eat, food outlets could partner with local community gardens, in consultation with enterprises like Capital Scraps Composting or Global Worming. Goterra operates excellent self-contained processing modules for commercial scale food waste. Businesses using such services to divert organic material from landfill could be offered tax credits.

Goterra’s process uses soldier fly larvae to consume food waste. Currently, the mature insects then become high-protein feed for livestock. Food safety standards should be reviewed so that the insects can be used as a protein source for human consumption.<sup>10</sup> This could potentially reduce human consumption of animals which would have multiple benefits for the environment.

## **Built environment**

The Conservation Council largely supports the commitments and opportunities in circularity in the built environment. Government should prioritise its own procurement policies to source recycled materials to help drive demand and demonstrate practical applications. The new Draft Territory District Strategies and governing/supporting documents should also reflect these circular ambitions.

Humans are creatures of habit and will default to what’s familiar and most convenient. This is true for the designers, builders and tradespeople who create our built environment, meaning that all but the most motivated are likely to keep purchasing and using the conventional

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<sup>9</sup> Grimmer, L & Kilah, N, 2022, ‘Why ‘best before’ food labelling is not best for the planet or your budget’, ABC News, 20 September, <https://www.abc.net.au/news/2022-09-20/best-before-food-labelling-uk-ban/101454836>

<sup>10</sup> Kerry Health and Nutrition Institute, 2020, ‘The next sustainable ingredient – insects that convert waste into protein?’, <https://khni.kerry.com/news/the-next-sustainable-ingredient-insects-that-convert-waste-into-protein/>



materials they have always used. The Government could require refresher training for building industry professionals and partner with sustainability experts like the Green Building Council and Beyond Zero Emissions as well as training providers such as the Canberra Institute of Technology to deliver sustainability updates, particularly to small businesses without the resources to research this information for themselves. Government could also foster partnerships with research institutions including the CSIRO and MCI to run trials and expanded rollouts of new “green” materials including cement and steel. This training could also include how to design for no waste (such as designing for standard material sizes to eliminate wasted offcuts), and how to salvage materials for reuse and how to incorporate recycled materials.

Incentivise salvaging and reuse of materials through a buy-back scheme or tax credits based on quantity or percentage recycled materials. Create a database for demolition companies to list salvaged materials so that builders can purchase them.

But before salvage, comes reuse. Light House Architecture and Science is demonstrating that existing homes can be renovated and upgraded. The old Alexander and Albemarle office blocks in Woden have been updated and repurposed as apartment buildings, demonstrating that renovation is possible at all scales. The Government needs to prioritise reuse of all types of buildings over demolition, through upgrades and repurposing. Developers should be required to show cause if they intend to not reuse existing buildings. Cost of demolition for salvaging materials is likely to increase, which should incentivise reuse of buildings instead.

Waste avoidance targets, including minimum re-use of demolition materials, should be legislated to drive innovation. Where it is beyond the jurisdiction of the ACT Government to regulate local construction, the Government should engage with major suppliers and retailers of construction materials to influence what is available and brought into the ACT. The new Design Guides being developed to compliment the Urban Planning Strategy and the Everyday Climate Choices website could include a list of “best practice” examples from around the world, developed in collaboration with the Green Building Council.

The update of the National Construction Code to minimum 7-star energy efficiency is a step toward greater climate resilience in new buildings. The ACT Government could drive greater ambition toward best practice sustainability (which exceeds 7-stars) with communication that celebrates reuse of materials (instead of the culture of “new is better”). For example, Thor’s Hammer highlights the richness of connection with a piece of salvaged timber’s historical purpose. The Government could also engage with the construction industry to design more compact housing, capitalising on the popularity of the tiny house movement exemplified by “Never too small” and “Living big in a tiny house” YouTube channels. A levy on construction tiered by increasing floor area per dwelling, with credits for reuse of materials would incentivise smaller dwellings and more efficient resource use.

Co-designing the urban environment and infrastructure, such as street lights and shared streets, with the community can improve outcomes and reduce the need to remediate poor implementation later.

## Consumer goods

### *Product labelling and standards*

Introducing a standardised rating system and product labelling, like energy and water efficiency labels, for embodied energy and recycled content etc would help prevent “greenwashing”<sup>11</sup> and help consumers to make informed decisions. Even the most environmentally motivated consumer struggles to compare the ecological footprint of everyday products and services. The EU’s Ecolabel is a useful example.<sup>12</sup> Extend this labelling requirement to all categories of goods to attempt to curb overconsumption of unnecessary stuff.

Product labelling standards on some categories of goods already require producers to include instructions about disposal, so it should be relatively straightforward to amend these requirements to include a statement about the percentage of recycled content or embodied energy. Labels should instruct how combined materials can be easily disassembled to go into different materials recovery streams. For example, a label on glass jars providing instruction to remove the lid when placing the product in the recycling bin, or how to separate a clear plastic window and a closure magnet or ribbon from a cardboard box.

The ACT Government could consider advocating for an increase in the goods and services tax (GST) on non-essential products to curb overconsumption and create revenue for circular activities.

### *Quality and the right to repair*

The ACT Government needs to advance the right to repair consumer goods, which requires redesign. Products must be designed in a way to enable disassembly. Consumers must be able to purchase replacement parts. People should be able to claim tax credits for maintaining and repairing goods, such as service callouts for whitegoods repairers. Tool libraries and repair cafes should be properly funded, centrally located and staffed by paid professionals. For example, the Tuggeranong Repair Cafe should have premises funded in the Tuggeranong town centre. This could be a “bower” type centre that increases local community connection, education on circular economy initiatives and employment opportunities. This, along with similar premises across the city, could be in partnership with hardware shops and machinery hire companies (or other businesses as relevant) who receive subsidies for doing so.

Allow entrepreneurs (perhaps registered businesses or individuals) to scavenge from materials recovery facilities before dropped-off items are sent to recycling centres – particularly unwanted whitegoods may still be serviceable or stripped for parts.

Quality and durability are essential to prolonging the lifespan of everything from toasters to clothing to bookshelves. A thin, warped, \$5 “fast fashion” t-shirt has no secondhand value but distracts people’s attention from better quality secondhand alternatives. Government could collaborate with sustainability-minded marketing firms to develop a communications campaign to persuade people to buy secondhand, sustainable, “classic” style clothing and homewares rather than chase fads. Engaging with popular home design television shows to demonstrate

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<sup>11</sup> Pattabiraman, R, 2022, ACCC lays down the law on green claims, Inside FMCG, 20 September, <https://insidemcgc.com.au/2022/09/20/accc-lays-down-the-law-on-green-claims/>

<sup>12</sup> European Commission, n.d., ‘EU Ecolabel’, [https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home\\_en](https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home_en)

preloved styling rather than buying new items could also help shift norms of consumption. These activities could highlight platforms such as Buy Nothing Facebook groups, Gumtree and Facebook Marketplace as well as the many secondhand dealers around Canberra.

Requiring minimum 10-year warranties on white goods and furniture could drive greater quality, durability and availability of parts for servicing. Encourage appliance retailers to offer servicing to supplement their business model and offset lower rates of new sales.

Washing clothing and textiles gradually weakens them as fibres shed. People could be encouraged to wear clothes more than once and wash them half as often to extend their life.

Fabric and craft shops are disappearing from Canberra and the skills of making, altering and repairing clothing and textiles are disappearing. This is partly a factor of the easy availability of cheap fashions – it is far more expensive and time-consuming to make one's own clothing than to walk into one of hundreds of shops selling underpriced mass-produced garments. Other factors are social norms, advertising, and the busyness of our lives not allowing space for slow activities. Yet there is a growing movement of social media bloggers on Pinterest and Instagram sharing pictures of beautiful handcrafts, plus "how to" videos on YouTube on everything from carpentry to knitting. Covid lockdowns triggered renewed interest in slow crafts and purposeful social connection that could be capitalised on.

Durable, high-quality, sustainably produced items can be significantly more expensive to purchase. For example, someone may covet a beautiful hardwood table handmade from salvaged timber by Thor's Hammer, but is only able to afford a mass-produced version from a major retailer at a quarter of the price, even though they understand that the Thor's Hammer table represents better value in the long term. This disparity is difficult to resolve, but perhaps microloan financing for sustainable products could help people overcome the barrier of high purchase costs, like the Sustainable Households Scheme interest-free loans.

### *Sharing and borrowing*

*"You don't need a drill. You need a hole in the wall", Community Toolbox Canberra.*

"Little street libraries" and school clothing pools are great examples of localised, specific sharing and reuse. More "libraries" of things, such as toys, baby equipment, cloth nappies, cake tins, camping gear and other goods that people use infrequently or for limited time periods, should be encouraged and facilitated by providing space, and funding for administration and maintenance, support for promotion, etc. This includes the Community Toolbox Canberra. Government could provide a portal and encourage larger businesses to list available spaces and sponsor community-led initiatives.

Goods as a service rather than private ownership needs to be promoted. There are already many hire businesses in Canberra, from bikes to party supplies, appliances to formal wear. Traditional book libraries are still a good model for borrowing items we don't need to own. Gym membership is a much more feasible way to use fitness equipment than purchasing heavy machines. Beam and Neuron scooters and AirBike have demonstrated that app-based administration make hiring transport quick and convenient. People need to be taught to think about the outcome they require (seat 12 people for a dinner party, look fabulous for a friend's wedding, help a parent put up some shelves) then how they can achieve it without heading straight to the shops. Television shows like 'Tidying up with Marie Kondo' are highlighting that

more stuff doesn't bring greater happiness, indeed the opposite. Perhaps Governments could collaborate with such shows to tell stories about how to avoid acquiring excess stuff, make use of secondhand and borrowed/rented items, and declutter responsibly, ie recycle unwanted goods.<sup>13</sup>

Residences that have rapid turnover of tenants, such as university accommodation, should have libraries of furniture and household items for incoming students to borrow (or rent) from, rather than offering move-in packs of all-new items.

### *Container deposit scheme model of extended producer responsibility*

Replicate this for other categories of goods to build in the costs of recovery, environmental restoration and investment in reuse, repair and recycling systems. Such schemes ensure that producers are bearing the costs of the impacts of their goods, but also enable industry collaboration to develop solutions at scale. For small consumer products like bottles, consider locating collection stations in shopping centres (like REDcycle) or even inside supermarkets and crediting the refund to be used on the grocery bill at checkout. REDcycle could be resurrected if producers were required to contribute to a recovery scheme, based on volume of plastic produced. Refunds could be offered on the basis of weight of plastic returned.

At the moment, anyone taking materials to the tip has to pay to offload their waste, which is a disincentive to dispose of materials responsibly. The construction industry in particular is notorious for "dumping" its wastes or trucking it across borders to cheaper facilities. People often leave unwanted goods on their verges in the hope that someone else will deal with them rather than taking them to the tip where they face a fee.

A circular economy should instead value those materials at inputs to new products and producers should be buying them rather than virgin materials.

If industry funds recovery schemes and is required by legislation to buy recovered materials to produce new products, then we could eliminate tip fees and instead pay people a "refund" for returned materials. This provides greater incentive for businesses, individuals and community groups to sort and return unwanted goods and creates a revenue stream for entrepreneurs to actively collect materials for reuse. If, for example, consumers were paid \$30 to return an old mattress rather than paying a fee to do so, there would be far fewer dumped or hoarded mattresses and the embodied materials would be in better condition for recovery and reuse. There would be less illegal construction waste dumped or trucked if builders could sell their demolition wastes or offcuts as salvaged materials.

There are, of course, examples of individual companies leading voluntary schemes, such as Country Road's Climate Fund<sup>14</sup>, that could serve as additional models for compulsory schemes.

## **Emerging and problematic waste streams**

Electronic products in particular contain dozens of substances that are expensive and environmentally damaging to extract from nature and process, and toxic if dumped into landfill.

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<sup>13</sup> Martin-Woodhead, A, 2022, 'Why TV decluttering shows need to clean up their act', The Conversation, <https://theconversation.com/why-tv-decluttering-shows-need-to-clean-up-their-act-174443>

<sup>14</sup> O'Neill, B, 2022, Should fashion retailers be taking on the responsibility to fix climate change?, Fashion Journal, 24 October, <https://fashionjournal.com.au/fashion/retailers-responsibility-climate-change/>

Like asbestos, Government needs to act in the immediate term to ban substances that are harmful to human health and the environment. We cannot continue to apply chemical substances to our landscapes at a mass scale when we know the devastating effects they have on biodiversity. We cannot allow factories to continue to use substances that cause illness in workers and surrounding communities.

But being less bad is not good enough for a sustainable future. Governments, environmentalists, healthcare professionals, workers unions and the public cannot keep up with the endless parade of new substances being created by chemical laboratories and manufacturers. The decades-long reactive approach of banning a substance after it has been found by a concerned public to be harmful will keep us forever chasing our tails identifying and attempting to manage problematic wastes and toxic pollutants.

The circular economy principles of “design out waste and pollution” and “regenerate nature” demand the opposite approach. It should be incumbent on inventors, designers, product developers and manufacturers to demonstrate not how their products are not harmful, but how their products are beneficial to biodiverse natural systems.

There are already safe alternatives to many harmful substances and processes, such as organic tanning of leather instead of chromium, organic cleaning products instead of harsh burning chemicals, crushed walnut shells instead of microplastic beads in facial scrubs. But clearly, voluntary standards are not good enough. Legislate to prohibit harmful products and businesses will adapt. Once a material is regulated, retailers are all on the same playing field and the baseline is raised. Those businesses that import problematic materials, such as expanded polystyrene packaging, will pretty quickly push back up their supply chain to eliminate banned materials if they want to continue to sell in the ACT. Where there are not yet viable solutions, we may need to accept that we need to forgo some of the conveniences that harmful products have afforded society until safe versions are developed.

This needs to be considered at community scale also. For instance, the concept of “community batteries” has arisen in energy network discussions, but mining and recycling lithium is a known environmental hazard. Manufacturing and recycling old solar panels is also resource-intensive. The Australian National University conducted a study in 2017 that found 22,000 sites across Australia suitable for pumped hydro at a variety of scales<sup>15</sup>, which offers a chemically safe, mechanically straightforward alternative to chemical batteries for energy generation and storage. Yet Evoenergy and the ACT Government have dismissed the potential of pumped hydro as an energy storage solution for the ACT, failing to incorporate it into the Cotter Dam expansion or identify other potential sites.

Government could research and invite investment in recycling problematic wastes. There are companies around Australia and internationally pioneering innovative processes to recover more materials safely, such as Neometals’ lithium battery shredding process.<sup>16</sup> SMaRT@UNSW, led by Professor Veena Sahajwalla, is developing and implementing solutions for recycling disposable coffee capsules, rubber tyres, electronics, mattresses and more, in eminently flexible

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<sup>15</sup> Wright, W, 2017, ‘ANU finds 22,000 potential pumped hydro sites in Australia’,

<https://www.anu.edu.au/news/all-news/anu-finds-22000-potential-pumped-hydro-sites-in-australia>

<sup>16</sup> Vorrath, S, 2021, ‘Battery recycling plant starts “shredding” in Germany, using Australian technology’, Renew Economy,

<https://reneweconomy.com.au/battery-recycling-plant-starts-shredding-in-germany-using-australian-technology/>

“microfactory” applications suitable for small-scale sites like the ACT’s material recovery facilities.<sup>17</sup> Placing a tax/levy on materials that currently have no recycling solution would provide funding for such research, as well as raising the prices of those goods which would reduce consumption.

Create tools to engage Canberrans in the process of gap analysis. Create a form for consumers to report non-recyclable products (associated with the Recyclopaedia or Fix My Street). Produce an annual report of those products and send it to all listed producers.

Conduct an audit and consumer survey of the Recyclopaedia to identify all products that have no industry-scale recycling solutions to inform a prioritised action plan. Again, distribute annual reporting of this gap analysis to the responsible producers of the problematic materials. Provide research and innovation grants to Canberra’s academic and entrepreneurial community to tackle those specific problems. Make it a mandatory criteria of any new grants through the Canberra Innovation Network that they demonstrate how a new product, service or project contributes to circularity.

We also need to ensure that solving one problem doesn’t create a different problem, such as plastic bottles being converted into fleece clothing that then releases microplastics into the environment when washed. Some “solutions” merely delay disposal, such as turning real estate agency promotional magnets into children’s crafts – the magnet is still going to end up in the bin.

## **Showcase Canberra’s commitment to a circular economy**

*“The future is already here – it’s just not evenly distributed”, William Gibson.*

Numerous festivals, expos, events, reports and blogs, including ‘Circular CBR’<sup>18</sup>, the ACT Government’s Sustainable Business Expo, the Canberra Innovation Network and the CBR360 Circular Economy Symposium 2022, have demonstrated that Canberra already has a rich community of circular innovators, but there is no formal platform to systemically expose and foster such innovation.

The Government should create an online networking platform to facilitate collaboration for circular initiatives and outcomes. Allow businesses, groups, farmers, producers etc to list their activities, needs/inputs (raw materials, energy, people etc) and outputs (products, by-products, energy, “wastes” etc). Create an advanced search, sort and filter function to enable any visitor to the platform to find specific materials or compare their own operations with the database to find new suppliers or buyers with whom they could collaborate to close material loops. Include functions for businesses and academia to share experience, ideas, problems, research and innovations. This would help to grow markets for recovered materials and direct unwanted byproducts into higher value uses. It would enable entrepreneurs to identify opportunities from other businesses’ waste streams, and also enable Government to target problematic materials.

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<sup>17</sup> SMaRT@UNSW, <https://www.smart.unsw.edu.au/>

<sup>18</sup> Office of the Commissioner for Sustainability and the Environment, 2019, Circular\_CBR – Unlocking the potential of a circular economy in the ACT, [https://envcomm.act.gov.au/wp-content/uploads/2020/08/CSE-Circular\\_CBR-Economy-Feb2020-AccPDF\\_UNRESTRICTED\\_016.pdf](https://envcomm.act.gov.au/wp-content/uploads/2020/08/CSE-Circular_CBR-Economy-Feb2020-AccPDF_UNRESTRICTED_016.pdf)



Capital Brewing is a particularly good example of a business that has partnered with a network of other enterprises to source input materials and find high-value uses of its byproducts. A hub and an online platform would help to make this network visible and serve as an educational tool for schools and other businesses.

Taking that collaboration platform a step further, organisations could earn points or credentials for every percentage of its inputs and outputs that it exchanges through the network. Making the network transparent and accessible to the public as well as enterprises could lead to greater consumer confidence in the sustainability of goods and services as well as enabling enterprises to improve efficiency and sustainability through their supply chains. This could form the basis of a certification scheme and identity that builds on the CBR branding, such as “Circular CBR” or “CBR360”, that proudly proclaims Canberra’s circular credentials and encourages Canberrans to support local enterprises.

Creating one or more physical hubs in Canberra’s existing industrial and commercial districts would enable like-minded businesses to co-locate to share resources. The Dairy Flat precinct where Capital Brewing, Canberra City Farm, Jasper & Myrtle and other sustainability-conscious enterprises are located is a good example. These could be located with materials recovery centres.

However, to change the social norms and behaviours of Canberra’s “mass market” of households and consumers, responsibly produced goods and services need to be as accessible and convenient as the harmful and polluting products we consume on a daily basis.

*“Noone wants to go to a tip shop”, observed Sandie Parkes, Co-owner of The Green Shed, at the CBR360 Symposium.*

People enjoy shopping in shiny, clean, glamorous, airconditioned shopping centres that have everything they need, not having to schlep to a shed in an industrial precinct. Before you can change behaviour, you need to shift people’s perceptions. As successful “vintage” boutiques demonstrate, if stores selling preloved, used goods and recovered materials are presented at the same standard as and alongside shops selling “new” goods, it would become normal for customers to pop in for a second-hand book, housewarming gift, stylish jacket or refurbished washing machine. However, even long-established secondhand dealers such as Cash Converters or beautifully presented preloved clothing sellers such as Material Pleasures or expert repairers such as Preowned Appliances are rarely located in the bustling heart of a shopping precinct because they simply cannot afford the commercial rent and fitout costs. As popular as Capital Brewing is, Dairy Flat is not near residences or convenient public transport.

Many sustainability-focused enterprises also cannot compete with the advertising budgets of the major retailers. It is difficult for small businesses with tight margins to break into established markets. For example, most Canberrans would be able to name Harvey Norman, Bing Lee and The Good Guys when considering purchasing a new washing machine or fridge, but how many have heard of Preowned Appliances or Renewed Appliances? It takes a huge and disproportionate amount of work for independent innovators, such as Food2Soil, to get their products onto supermarket shelves alongside major brands with established supply chains and brand recognition. Often they need an investment partner to help with marketing, or find a champion with a public profile. The Government can help by running feature stories and spotlights in its existing public communications. The case studies on the Everyday Climate Choices website are excellent. Perhaps the site could also host a searchable listing of

circular/environmentally sustainable businesses to help consumers find better products and services.

The Government could help level the playing field by requiring shopping centres to dedicate a certain minimum percentage of floor space and advertising streams to providers of used or sustainably produced goods at a subsidised lease cost. Government could offer subsidies or tax deductions for qualifying enterprises to cover commercial operating costs and staff salaries. These supports would enable community-led enterprises such as the Community Toolbox, the Canberra Environment Centre, charity shops like Salvos and Vinnies, repair cafes and so on to be centrally, conveniently and – critically – visibly located and on an equal footing with conventional shopping and services, while also ensuring the that work of people engaged in the circular economy is valued and rewarded.

Government could run targetted communication campaigns at key sales times (Christmas, Mothers/Fathers Day etc) encouraging people to buy environmentally responsible products, experiences instead of things, local instead of imported, preloved instead of new, handmade instead of mass market, join a local activity club, etc. Emphasise the wellbeing benefits and higher human values of social connection and craftsmanship. This would benefit local producers and artisans while reducing wasteful consumption.

Insurance is an enormous, often crippling, factor for community enterprises and start-up businesses even for low-risk activities. Circular projects could be more easily launched if there was some government underwriting.

There are some 30,000 businesses in the ACT, but very low attendance at the 2022 Sustainable Business Expo and the Conservation Council's experience in promoting the CBR360 Symposium suggests that the vast majority are not seeking and likely not paying attention to general communications in the public domain about sustainability. Conversation with the Climate Choices / Sustainable Business team at the CBR360 Symposium suggests that the Government's direct email contact list is limited to those businesses that have sought out or initiated contact with the Government via energy efficiency programs. This is not comprehensive enough to transition the Territory to a circular economy.

The Government needs to work with the Canberra Business Chamber, the Australian Business Register, industry associations, commercial precincts and other business services to compile a comprehensive list of Canberra's businesses so that the Government can proactively communicate directly with individual businesses at precinct scale and tailored to industry sectors.

## Other considerations

### Rethinking economic "growth"

The Earth's resources are finite and there are now plenty of alternative economic models that have dispelled the neoliberal capitalist model of endless economic growth (whether it is labelled "sustainable", "green", "responsible" or any other kind of growth) as being self-destructive and inequitable. We need to strive for a 'steady state' economy which, consistent with a circular economy of goods and services, moves from an extractive approach that encourages

consumption and asset accumulation to a redistributive approach that circulates only the materials we need and shares wealth for the benefit of all.

The ACT's CE Strategy acknowledges the wastefulness and pollution created by the current 'take-make-dispose' linear economic approach and "concerns about resource scarcity" and "the economic limits of patterns of production and consumption". However, circularity is still framed in terms of the efficiency of circulating "natural resources" and the centrality and assumed importance of the goal of "economic growth". Perhaps the Government authors are taking a "softly softly" approach to avoid alarming the business world, but the Strategy would benefit from being more explicit about "limits to growth" and leading an open discussion about alternative economic goals and models.

## **Community Capital to circulate assets locally**

Canberrans are generally pretty proud and protective of their city and love to support local culture and ingenuity with a great sense of humour and identity. This is exemplified by the high recognition and roaring success of local businesses like Capital Brewing, Three Mills Bakery, Canberra Milk, Lonsdale St Roasters, the Handmade Canberra markets, the Multicultural Festival, the highest number (and diversity) of restaurants per capita in Australia, the iconography of our unique cylindrical bus shelters and the enthusiastic embrace of the "Ken Behrens" phenomenon.

This could easily be translated into embrace of a local 'community capital' if well executed through a carefully-designed mobile app and website and communications campaign. Several cities in the UK even have their own local currency.<sup>19</sup> The Government can learn from the ChooseCBR voucher scheme implemented temporarily during the Covid-19 pandemic in 2020, and from examples overseas. This is more than just a "buy local" concept – a local currency helps support local businesses but also retains resources and wealth within a community.<sup>20</sup> Businesses benefit from reduced costs of doing business, and communities benefit by getting to know their neighbours (building social capital) and becoming more resilient to external shocks.

To start turning an extractive economy into a circular economy, the ACT Government could encourage businesses to keep capital within the Territory by allowing them to sell "CBR Capital" with each product or service sale.<sup>21</sup> Customers who have a financial stake in a business will care for the business more than those who don't. If the Government took the lead, for instance through its procurement partners, then other businesses in the ACT will follow.

## **Education**

Primary and secondary schools in the ACT generally are quite good at educating students about sustainability actions such as energy and recycling. However, this tends to fall away in later years and tertiary education as courses become more specialised. Yet it is when young adults are heading out into the workforce that they have the greatest opportunity to influence society.

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<sup>19</sup> Tucker, E, 2019, 'Designing the UK's local currencies', Creative Review, <https://www.creativereview.co.uk/designing-uks-local-currencies/>

<sup>20</sup> Cox, K, 2022, 'A circular economy', <https://kevin-34708.medium.com/a-circular-economy-e8279fda408b>

<sup>21</sup> Cox, K, 2022, 'Turning an extractive economy into a circular economy', <https://kevin-34708.medium.com/turning-an-extractive-economy-into-a-circular-economy-22e6215ecff9>

Sustainability should be a fundamental underpinning of all education and professional development. “How can we ensure this drama production is waste free?” “What are the harmful substances we must avoid in textile design?” “How can a commercial kitchen minimise food waste?” “What are the impacts of a disposable nappy policy in a childcare centre?” “How does the law protect the environment in construction projects?” “How can corporations become forces for equity and environmental regeneration?” “What are the energy implications of an intranet server room?” These are the sorts of question that should be asked in every tertiary education course, not taught as separate standalone elective subjects that students can ignore if they are not interested. Students should be routinely examining the causes and effects of human activity on the environment. Government could engage education and training providers to incorporate sustainability into core subjects. This would help carry such thinking out into the community in a wave of generational change.

## **Regenerating nature**

As one of the three principles of a circular economy, the Strategy needs to bring more focus to the principle of regenerating nature. The framing is largely economic and focused on reducing waste, but Australia’s State of the Environment reports repeatedly warn that the environment is deteriorating. The cumulative impacts of droughts, bushfires, floods, invasive species, land clearing, agriculture and other human activities are evident even in the ACT. If the authors of the Strategy were to pull together all of the regeneration actions and opportunities, it would be easier to assess whether the Strategy is sufficiently addressing the restoration of our local environment. It should also link more strongly to planetary boundaries and other ACT Strategies related to biodiversity and waterways.

## **Transport**

Transport needs to also be a part of the circular economy, both as a service to access sustainability activities and as a materials cycle.

The Conservation Council has previously written submissions advocating for an integrated transport system that prioritises active travel, public transport and shared services over single-driver privately owned vehicles, and electrification of fossil-fueled vehicles. These services must extend to the kinds of businesses, community centres and hubs discussed in this submission or Canberrans will continue to shop at the most convenient conventional shopping malls.

Land occupied by open-air parking spaces in town centres could be converted to circular uses. Priority parking could be reserved for people bringing items to fix at repair cafes.

The ACT Government’s transport and climate change strategies detail the goal to replace fossil-fueled vehicles with electric, and to incorporate sustainability practises into construction of infrastructure, but little is ever said about the resource implications of the vehicles themselves. Cars, trucks and buses are an incredibly complex combination of composite materials, highly extractive for production, difficult to recover for reuse. The ecological impacts of the average Canberran’s habit of replacing a car every 9 years fall largely outside Australia as car parts and production stages are scattered across the world in long, complex supply chains.

The ACT Government should advocate for standards for recycled content in vehicles, elimination of hazardous and problematic materials or combinations of materials, and extended

producer responsibility to fund recovery and recycling of unusable vehicles. The same goes for electric bicycles, scooters, motorbikes and other motorised mobility vehicles.

## Action plan

The Conservation Council looks forward to seeing the action plan with targets and timelines. This plan should identify the roles of Government, business, academia and the community because the transition will require collaboration. The Action plan should also note those actions that are within the ACT's government's direct control and those that are outside of the ACT Government's control but can be advocated for at the national level or through supply chains or national organisations such as the Australian Packaging Covenant Organisation or the Product Stewardship Centre of Excellence or the Australian Circular Economy Hub etc.

## Summary

The case for circularity is clear. The accelerating pace of global climate change and environmental degradation demands urgent action to reduce our ecological footprint, yet current financial and policy settings and voluntary programs are too slow and ineffectual.

A circular economy is an elegantly simple model. Implementation of it can be accelerated and strengthened by placing emphasis on rethinking the purpose of production, and redesigning products, processes, packaging and other steps in the supply chain to prioritise avoidance of virgin materials and identifying how each step can benefit (instead of extract from) nature and society.

The draft Strategy contains many examples of circularity in action in the ACT. On the whole, it demonstrates comprehensive consideration of circularity and contains many constructive proposals and potential opportunities.

The Conservation Council urges the ACT Government to be bold and ambitious, including legislating recycling targets and regulating problematic materials. Industry needs to step up and be made to rethink its purpose in society and redesign everything for sustainability (i.e. zero harm as an absolute minimum standard, tending toward 100% recyclability). Extended producer responsibility schemes must be implemented so that producers, not the community, provide the funding and solutions for materials recovery and embed sustainability within the cost of doing business.

Financial drivers of the linear economic system must be examined and transformed if a circular economy is to succeed. Communication and education will be needed to shift people's perceptions about and social norms of reusing and repairing.

This submission was developed in consultation with Member Groups and stakeholders of the Conservation Council ACT Region, including Living Streets Canberra, ANU PARSA (Postgraduate and research student association), the Community Toolbox Canberra, the Canberra Environment Centre and Samsara Eco.