

RESPONSIBLE WASTE MANAGEMENT AND THE CREATION OF CIRCULAR ECONOMIES

Emerging Leaders Program 2019 – Group 4



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Executive Summary

The circular economy seeks to shift away from a linear waste model through the reuse, recycling and correlation with the industry to implement sustainable practices. By identifying the current state of Waste Management within Australia and South Australia, this report aims to showcase the potential opportunities for local government to implement circular economies over the next 5 years.

This report documents examples from Australia of successful practices of circular economies through infrastructure, green waste and plastics. It also outlines the initial steps taken by local governments in South Australia to re-use and recycle waste materials, including the associated benefits and measures of circular economies.

Barriers to change and implementation of circular economies are common within waste management and sustainable practices, ranging from domestic waste collection, education, lack of local markets and procurement processes.

By identifying the challenges in circular economies, the success stories, and the barriers to implementation, a strategy may be formed including the recommendations outlined in the 5-year plan that many Councils should consider adopting. This strategy addresses the need for a procurement policy, further support at the National level and the formation of a Council wide committee that drives this strategy organisation wide.

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Introduction

The Circular economy seeks to shift away from a linear waste model, by keeping materials in circulation through the reuse and recycling, industrial symbiosis and other efforts to divert materials from landfill (Government of South Australia, 2015).

The impact of the China Waste Ban saw China cease importation of 24 types of plastic and paper for recycling in 2018, causing many countries to reconsider how they handled waste. Some directed this waste to landfill, others chose to incinerate (Liebman, 2018). The Australian Government updated its national waste policy to include the introduction of a waste management hierarchy, alignment with the 2015 UN Sustainable Development Goals, and emphasised the delineation of the waste lifecycle to rethink the use of waste as a resource, and consider a “whole of system approach that requires accounting of the full cost and life-cycle of materials” (Australian Government, 2018).

With the recent imposition of a 40% increase to the solid waste levy by the State Government (Local Government Association, 2019) and increasing local, national and global pressure to commit to more responsible and sustainable environmental practices, it is hard to dismiss the opportunities to create circular economies within Local Government and the benefits that can be realised from an environmental, sustainability and financial perspective.

We cannot ignore that waste management is a broad and multifaceted topic, however local government can also refine and target specific and significant opportunities.

It is for these reasons that responsible waste management and the creation of circular economies was selected as the biggest opportunity facing local government in South Australia in the next five years. While other aspects such as education may benefit responsible waste management practices, circular economies can create significant impacts in the way we treat and reuse waste.

The aim of this report is to provide Councils in South Australia with information and recommendations to increase the use of recycled products in Council operations, with the intention of creating a circular economy, reducing the need for raw materials, and reducing the financial impact of landfill costs.

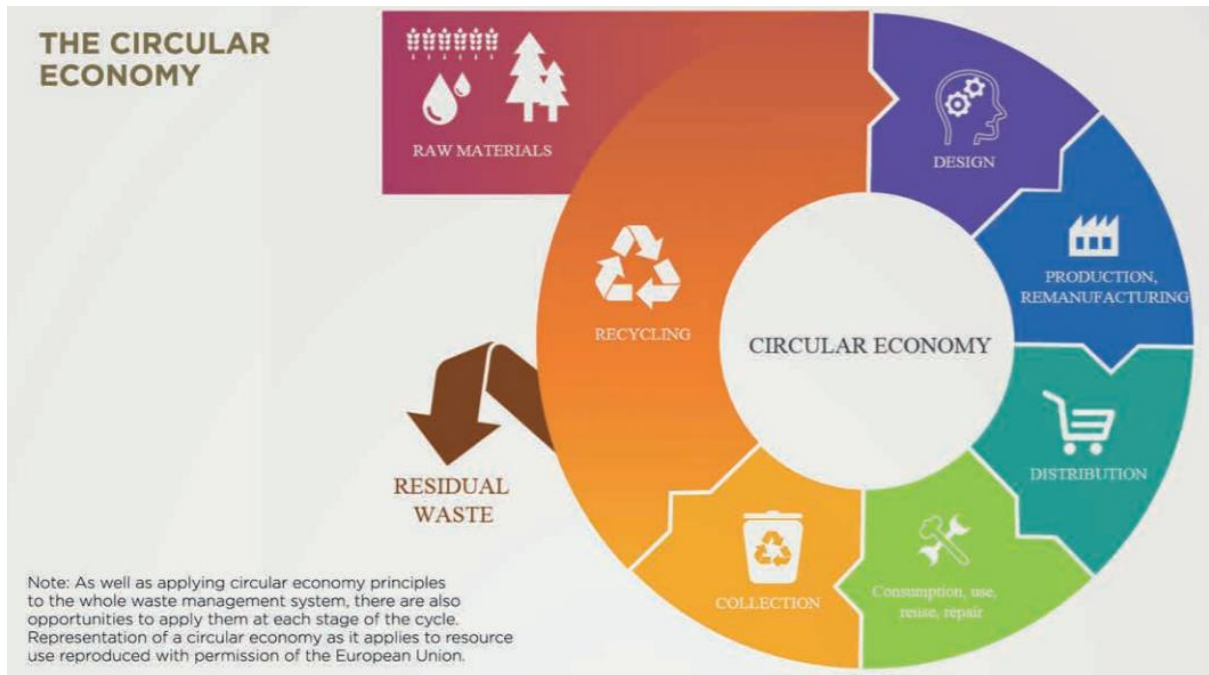


Figure 1: National Waste Management Policy 2018 (<http://www.environment.gov.au>)

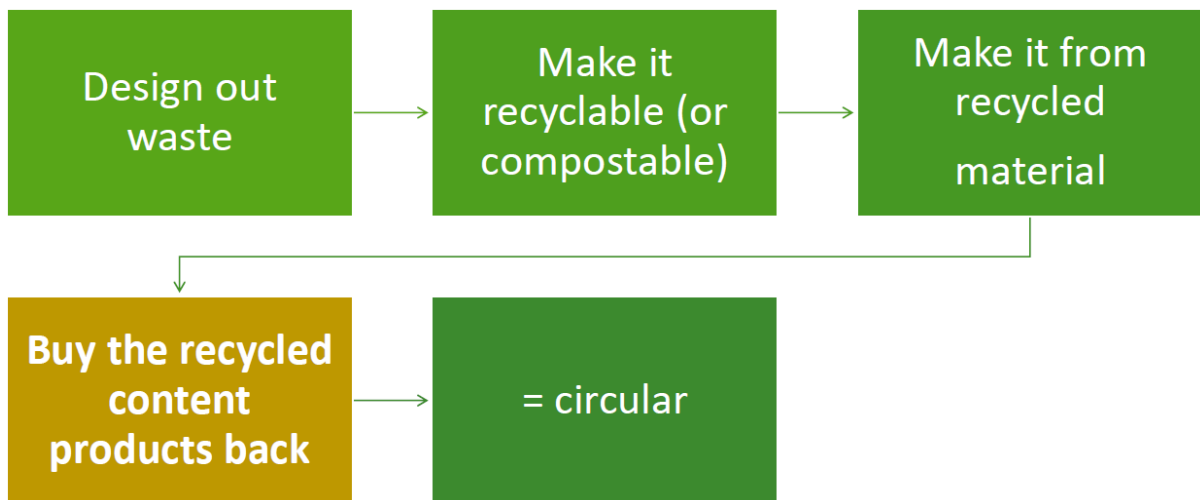


Figure 2: Presentation by Adam Faulkner, CEO of NAWMA

Analysis and Discussion

The Australian Waste Scene

Australia produced 67 million tonnes of waste in 2016/17, an astonishing 2.7 tonnes of waste per person (Pickin, Randell, Trinh, & Grant, 2018). The waste that Australia produces has increased by 6% over the last 11 years, however there has been a 10% decrease in the average waste produced per person over the same period (Pickin, Randell, Trinh, & Grant, 2018). There is no argument that the best way to reduce waste is to stop the creation of waste at the source. However, in today's consumer driven society, excess packaging, disposability and cost pressures will continue to impact waste generation, unless drastic changes are made.

Fortunately, South Australia can be viewed as a leader in recycling, boasting the highest resource recovery and recycling rates of 82% and 78% respectively (Pickin, Randell, Trinh, & Grant, 2018). When interviewed, the Resource Recovery Manager at Northern Adelaide Waste Management Authority (NAWMA), Danial Dunn stated that South Australia is "very lucky" to be leading the nation in advanced recycling and green organics recovery processes and facilities, and "no other state has anything like it", predominantly due to the existing Waste Reform Act and policy changes over the past 5 years (Dunn, 2019).

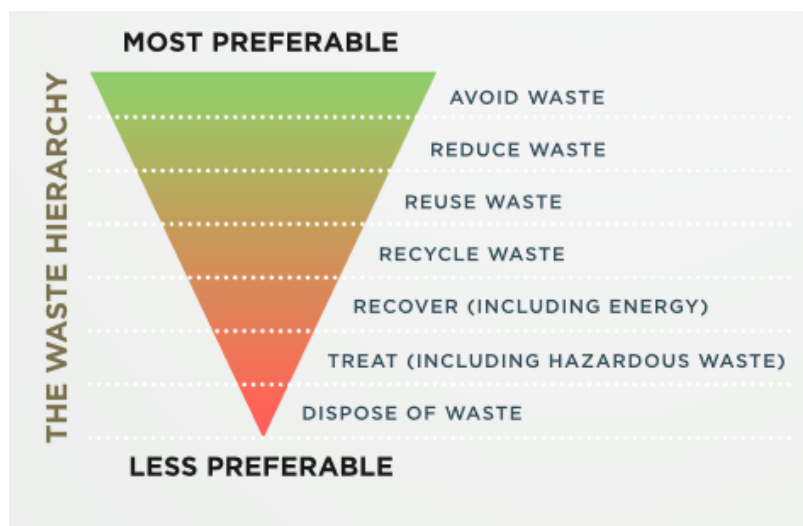


Figure 3: Waste Management Hierarchy (Pickin et al. 2018)

According to the Waste Management Hierarchy (Figure 3) the best waste management strategy is one that avoids and reduces material from entering the waste stream. However, with limited

control and influence within local government, the next best strategy is one that recovers, recycles and reuses waste materials.

This and the increasing emphasis on sustainability means that Councils have started to review and adopt waste management strategies, which aim to reduce waste to landfill, increase materials recovery and increase community knowledge of responsible waste management (Chambers, Waste Management Officer, 2019). Materials recovery is a positive step in the right direction, however there needs to be a plan of action as to what these materials will be used for.

Circular Economies in Local Government

Infrastructure

Examples of circular economy opportunities can already be seen around the world. The construction of roads and pathways using recycled materials has been demonstrated successfully using a range of materials including glass (Cleanaway, 2019), plastic (McCarthy, 2018) and recovered tyres (Eloreine, 2018).

A civil works project at Stanlake Avenue, St Marys (Figure 4) saw the City of Mitcham Council use 850 end of life tyres to create a crumb rubber asphalt surface to seal a 335m stretch of road (Eloreine, 2018). Based on research conducted in similar climates overseas, the performance of the road is expected to increase longevity, lower ongoing maintenance costs and improve the quality of the road pavement over reactive clay soil (City of Mitcham, n.d.). By using the end-of-life tyres, approximately 6 tonnes of asphalt wasn't required as part of capital construction costs (Table 1: Savings Crumb RubberTable 1)



Figure 4: Stanlake Avenue (Trailer Magazine, 2019)

Table 1: Savings Crumb Rubber

Capital Savings				
	Quantity	Weight per tyre	Cost per Tonne	Total
Tyres used	850	7.5kgs *		6.375t

*Source: (I Post Parcels, n.d.)

A recent project in Melbourne saw Hume City Council successfully construct a 300 metre stretch of road using almost 55 tonnes of material destined for landfill (Figure 5 & Figure 7). The road is expected to be more durable, flexible and tolerable to extreme heat temperatures (Tran & McIver, 2018).



Figure 5: Hume City Council project, Rayfield Avenue, Craigie

The City of Fremantle in Western Australia recently used recycled glass asphalt to resurface a carpark (Figure 6), a majority of which were bottles and jars destined for export (Local Government Focus, 2019). Environmentally, as these materials have been processed on shore, there has been a reduction in greenhouse gas emissions from transportation, and a reduction in energy usage as glass asphalt can be composed at a lower temperature than traditional asphalt (Local Government Focus, 2019). By processing these materials locally, there is the potential to generate a local market for these waste products, as well as stimulate employment.



Figure 6: City of Fremantle carpark

Central Coast Council in New South Wales is using 'Reconophalt'(Figure 7), a road surfacing product developed in Australia by Downer Group, which helps to divert thousands of tonnes of waste from landfill. A 600m section of road can save 631,000 plastic bags, 117,000 glass bottles, 14,4000 used printer cartridges and 160 tonnes of road asphalt from going to landfill (Local Government Focus, 2019). The benefits include improved strength and resistance to deformation, ultimately resulting in longer lasting roads and the ability to handle heavy traffic (Local Government Focus, 2019). Additionally, soft plastic waste generated in the Council district is being recycled into Reconophalt at Downer's purpose built facility in Lake Macquarie (Waste Management Review, 2019).



Figure 7: Thousands of plastic bags and old printer cartridges turned into road additive

The City of Onkaparinga in South Australia used soft plastics, glass, and toner from used printer cartridges and recycled asphalt to construct a road in Happy Valley (Figure 8). Mayor Thompson sees the recycling and waste challenge as an exciting opportunity, highlighting what can be achieved when local government works with local industries (Local Government Focus, 2019).



Figure 8: City of Onkaparinga using Reconophalt (Waste Management Review, 2019)

The Liverpool City Council constructed the Bernera Road extension (Figure 9) in Edmonson Park using more than 30,000 tonnes of old road base and asphalt materials (Liverpool City Council, 2019)



Figure 9: Liverpool City Council reusing old road materials in new construction

Green Waste

There are also examples of Councils reusing green and organic matter. Scott Chiswell Group Leader from the City of Port Adelaide Enfield stated that the Council converts the organic matter from tree pruning into mulch which is then used across many of the 280 parks and gardens within the Council area (2019). Similarly, Max Murawsky, Accountant from Mount Barker District Council noted that the Council converts the green waste dumped at its waste transfer station into mulch, which it then sells back to the community to use on their gardens (2019). Not only does this save on disposal costs and convert waste into a usable product but also provides an additional revenue stream for Council.

Plastics

REPLAS (Recycled Plastic Products) are a company committed to reducing the amount of plastic waste going to landfill. With such focus by the community on how plastics are recycled, REPLAS offer a range of street furniture, playground equipment and signage that is processed through partnerships with Australian companies such as Woolworths and Coles (REPLAS, 2019). Renmark Paringa Council has recently introduced recycled plastic bollards amongst its sustainable project which illustrates circular economy practices by purchasing products that are repurposed from waste. Recycled plastic bollards and furniture will not split, rot or crack and have become a great solution for Renmark Paringa Council as a user of recycled plastic products bought through REPLAS (Figure 10).



Figure 10: Renmark Paringa Council CEO illustrating recently installed Recycled Plastic Bollards (REPLAS, 2019)

First movers – South Australian Context

Pleasingly, Councils and their waste subsidiaries in South Australia have already begun to make the transition to a circular economy. The Northern Adelaide Waste Management Authority (NAWMA), a regional subsidiary of the City of Salisbury, City of Playford and Town of Gawler, which processes recyclables for 28 South Australian Councils (Figure 11) has developed a strategy to have their constituent Councils “buy back half the weight of their kerbside waste in the form of sustainable procurement by 2023 (Faulkner, 2019).



Figure 11: Processes for Buying it Back LGA Circular Procurement Pilot Project (Local Government Association, 2019)

Additionally, nine South Australian Councils have also recently signed a Memorandum of Understanding with the Local Government Association of South Australia, also known as the Buying it Back LGA Circular Procurement Pilot Project (Figure 11), to “increase their purchasing of recycled materials each year until they are buying back recycled materials equivalent to 50% of the weight of plastics collected through kerbside recycling services in their Council area” (Local Government Association, 2019). Based on the volume of plastics collected in 2017/18, this represents approximately 1,400 tonnes of waste that will be diverted from landfill and reused by Councils in providing services for their communities (Local Government Association, 2019).

Table 2 illustrates below, examples of what some South Australian Councils have adopted towards embracing circular economies:

Table 2: Examples of SA Council - Circular Economies

Council	Circular Economy Move
City of Mitcham	Infrastructure – roads, carparks
City of Onkaparinga	Infrastructure – roads
City of Campbelltown City of Mitcham City of Onkaparinga City of Port Adelaide Enfield City of Salisbury City of West Torrens	Infrastructure – roads, carparks. Research trial.
City of Port Adelaide Enfield	Green waste recovery and reuse
Mount Barker District Council	Green waste recovery and reuse
City of Mitcham	Green waste recovery and reuse
Adelaide Hills Council City of Burnside City of Charles Sturt Mount Barker District Council Rural City of Murray Bridge City of Norwood, Payneham & St Peters City of Onkaparinga City of Port Adelaide Enfield City of Prospect	Procurement – memorandum of understanding
Renmark Paringa Council	Plastics – bollards, street furniture

It is important to note that several Councils are now controlling, constructing or negotiating terms of materials recovery facilities (MRFs). In doing this however, there needs to be consideration and investment into how these facilities process waste into new useable materials for market, rather than waste processing alone.

Benefits to Councils and Communities

Project Specific Benefits

These are some illustrations of the benefits of some of the projects outlined above.

Materials used in the City of Mitcham Project

Table 3: Project Materials - Stanlake Avenue

Operational Savings				
	Quantity	Weight per tyre	Cost per Tonne	Total
Tyres used	850	7.5kgs *		6,375kgs
Diversion from Landfill	6.375 tonnes		\$140	\$879

Sources

* (I Post Parcels, n.d.)

In addition to Table 3 above the presiding engineer for this project also noted that the cost of the materials included processing and transportation from interstate, however if the materials could be sourced locally this could potentially reduce the price per tonne from \$900 to \$500 (King, 2019) saving a further **\$124,400** off construction costs based on 311 tonnes of asphalt needed for construction. There have also been indications that the materials can be lifted and processed for reuse again at the end of asset life, further extending the use of the materials and reducing future construction costs (King, 2019). Furthermore, the anticipated extension of the life of crumb rubber can also contribute to ongoing financial savings for Council. Preliminary results from crumb rubber applications indicate a potential 10 -25% increase in asset life (Brown, 2019). The impact of this on a typical Council annual reseal program would equate to the below savings noted in **Error! Reference source not found..**

Table 4: Increase in Potential Life Savings based on Asset Depreciation

Operational Savings				
Road Type	Cost (\$)	Asset Life (years)	Depreciation (per annum)	Total Savings
Asphalt	7,000,000 *	20 **	350,000	-
Recycled materials – assuming 10% increase in life	7,000,000	22	318,182	31,818
Recycled materials – assuming 25% increase in life	7,000,000	25	280,000	70,000

*Cost is an estimate of an average reseal program

**Asset life may vary based on pavement compound and environment

Materials used in the Hume City Council Project

Diversion from landfill can also generate significant cost savings based on the recent change to the solid waste levy at \$140 per tonne.

Table 5: Materials Used - Hume City Council

Waste product	Weight (kg)	Quantity	Weight (tonnes)
Plastic Bag *	0.006	530,000	3.18
Printer Cartridge **	1.134	12,000	13.61
Glass Bottle ***	0.227	168,000	38.14
Total tonnes of waste diverted from landfill			54.92
Cost saving in diversion from landfill @ \$140 p/ tonne			\$7,700
Tonnes per kilometre of road			0.18

Sources

* <https://stanfordmag.org/contents/plastic-bags-to-recycle-or-not-essential-answer>

** <http://www.printersuppliesinc.com/index.cfm?page=10886&pagename=Cartridge%20Recycling>

*** https://www.waste360.com/Recycling_And_Processing/waste_glass_containers_4

Materials used in the Liverpool City Council Project

Liverpool City Council in New South Wales planned to save in excess of **\$800,000** by using more than 20,000 tonnes of old road material that would otherwise have been destined for landfill, in the construction of a major new road. This reduced its waste to landfill and minimised the requirement of newly quarried material (Local Government Focus, 2018).

Benefits and Measures of Circular Economy Success

The potential benefits to Councils in creating circular economies fall in a variety of areas. To appropriately determine the success of creating circular economies, we need to categorise and define measures for success. While these measures may vary between projects, initiatives and Councils, an outline of such benefits and associated measures are below:

Financial

Benefit	Measure
<u>Capital</u> – decreased cost when using recovered materials in construction	Cost variance analysis in comparable roads using a variety of treatments
<u>Capital</u> – decreased cost when recovered materials are sourced locally	Cost variance in procurement of materials
<u>Operational</u> – decreased cost due to reduced depreciation and extended asset life	Life cycle monitoring of product
<u>Operational</u> – decreased cost due to less waste being directed to landfill and thus reducing the solid waste levy payable	Measurement of recovered materials used by weight (tonne)

Environmental

Benefit	Measure
<u>Waste</u> – reduction of waste directed to landfill	Waste products used in circular economies
<u>Waste</u> – reduction of waste directed to landfill	Waste collected for processing
<u>Heat</u> – reduction in temperature of urban heat islands	Temperature around areas treated with recovered materials before and after construction
<u>Water</u> – Improvement in the quality of stormwater	Water testing on runoff from areas treated with recovered materials before and after construction

Commercial

Benefit	Measure
<u>Partnerships</u> – relationships developed across the waste management and processing sector	United approach to achieving strategies Complimentary / aligned strategic goals
<u>Subsidiaries</u> – investment in processing facilities	Recovered materials processing opportunities
<u>Subsidiaries</u> – investment in processing facilities	Investment, processing and dividend agreements

Education

Benefit	Measure
<u>Policy</u> – introduction of circular economies into local policies	Percentage of materials acquired as new versus recovered
<u>Strategy</u> – embed circular economies into strategic direction	Achievement of outcomes
<u>Strategy</u> – embed circular economies into strategic direction	Refinement and increase of circular economy strategy over time
<u>Community</u> – awareness and support (delivered through education pieces related to responsible waste management to compliment circular economies)	Contamination rates of waste materials collected for processing
<u>Subsidiaries</u> – investment in processing facilities	Education opportunities provided to organisation and community

Advocacy (to be done in conjunction to compliment the creation of circular economies)

Benefit	Measure
<u>State</u> – improved relationship with State Government	Meetings and outcomes agreed with State MPs
<u>Federal</u> – improved relationship with Federal Government	Meetings and outcomes agreed with Federal MPs

LINEAR ECONOMY



RECYCLING ECONOMY



CIRCULAR ECONOMY



Figure 12: Design for Circular Economies (<http://www.dailygood.org>, 2019)

Barriers to Implementation

As with any emerging and significant change, barriers to implementation may be identified. Some of the initial and noteworthy barriers to circular economies have been identified below.

Emerging Technology

While some circular economy solutions may be considered emerging technology, there is extensive research being conducted in Australia by a range of Universities and organisations to assess the durability, resilience, stability and to test varying technical requirements based on Australian conditions (Tyre Stewardship Australia, 2019). The more that local government take up opportunities and partner with researchers in the field, the more that these technologies will improve over time.

Contamination

Contamination of collected waste can inhibit the separation process and increase the volume of waste unnecessarily sent to landfill.

Recent kerbside waste audits suggest that 64% of waste in Port Adelaide Enfield's general rubbish can be recycled (Payne, 2019). According to a report compiled in collaboration with East Waste, the City of Mitcham conducted a 2019 Kerbside Bin Audit which illustrated waste to landfill content was made up of 30% green organics contamination (Chambers, Waste Management Officer, 2019).

Industry leaders have stated that there is a large problem whereby the three bin system is not being utilised correctly, with household waste still returning high rates of contamination (Faulkner, 2019).

Education

Councils have an important role when it comes to educating the community about waste management (Local Government Association of South Australia, 2017). Educating and promoting better waste management can result in changes to the way that consumers think about waste.

Matt Pears, the CEO of the City of Mitcham, believes that the benefits of education will come from necessity. For example, the implementation of restrictions on water use, saw a more conscious effort regarding responsible water use (Pears, 2019).

Further research is required to determine whether this is an education problem, or detachment from the lifecycle of waste once it leaves the property.

Procurement

Whilst recycling and reusing waste makes 'sense' in that less waste is going into landfill, and fewer materials have to be produced, there appears to be a disconnect in the procurement process. Whilst green or innovative waste management practices can be developed, they are useless unless they are considered when performing commercial activities.

Unfortunately, many Councils have not yet prioritised circular economies and use of recycled products amongst their activities, which is likely due to the adherence to budgets and that best pricing is ranked highly during a procurement evaluation process (Leonello, 2019), (Chambers, Waste Management Officer, 2019). There is also a "lack of process that embeds sustainability in Council's operations, capital works program and supply chains" (Leonello, 2019).

This is seen as a flaw in the procurement process, as solely looking at price ignores the environmental benefits, and future savings resulting from reduced waste to landfill, which Councils are ultimately responsible for.

City of Mitcham CEO Matt Pears suggests that the market for circular economy products needs to be fuelled by Councils. By securing supply and demand agreements with organisations who specialise in transactional waste and the development of circular economies, he believes that Councils can drive the market and influence the uptake in production of waste products. This allows Councils to control the narrative of how and when they reuse waste (Pears, 2019).

Recommendations

The move to a circular economy relies heavily on a procurement strategy emphasising and appropriately weighing the use of recovered and recycled materials in Council operations. Councils are in a unique position to create new and innovative solutions with industry leaders and take a leap of faith in establishing a market for processed materials within South Australia. Some considerations for a strong procurement strategy are:

- Significant weighting placed on recycled and sustainable products (comparable or more weighted than financial aspects)
- Partnering with other Councils to generate increased market for circular economy products
- Placing weighting criteria on market providers that adopt circular economy practices for their commercial activities
- Inclusion and monitoring of the LGA pilot program to measure the demand for recycled products and efficiencies in the industry

Councils can also take greater control over the processing of waste. By becoming partners with other Councils in subsidiary Materials Recovery Facilities (MRFs), savings can be made on the costs of 'wheels' to transport waste, processing of waste and the purchase of repurposed materials. Further to this, if the MRFs were purpose built to efficiently and effectively process contaminated waste, it negates the need for a multi bin system and educational pieces on how waste should be sorted by consumers. This would be a significant change in how local government manages waste, however would be easier to achieve with managing Councils influencing and controlling the requirements of such facilities.

Strategy for Implementing Circular Economies

Table 6 below, outlines an implementation plan for South Australian Councils to commence embedding circular economies into their operations. The measures of success of this strategy can be taken from the summary of benefits and are recognised from a financial, environmental, commercial, educational and advocacy perspective.

Table 6: Strategy for Implementing Circular Economies

Timeframe	Actions	Why Then?
0 – 6 months	<ul style="list-style-type: none"> • Develop Procurement Policy to prioritise the use of products made from recycled materials • Research opportunities specific to Council area • Begin to embed waste reduction and reuse into organisational culture • Investigate partnership opportunities with researchers in the field 	<ul style="list-style-type: none"> • Establishes early stage foundations to support new strategy development • Sets standard for Procurement to negate this as a barrier • Creates opportunity to research best technology
6 – 12 months	<ul style="list-style-type: none"> • Develop strategy to include creation and use of circular economies and recycled products • Develop measures to monitor success of results • Build relationships with waste processors and materials recovery facilities • Build relationships with researchers in the field and commit to inclusion in research activities 	<ul style="list-style-type: none"> • Begins the process of incorporating circular economies into strategy and how to measure success • Start developing opportunities to improve materials processing to mitigate contamination issues • Provides an opportunity to research technology in local environment
12 months – 2 years	<ul style="list-style-type: none"> • Commence strategy • Build circular economies into ongoing Council operations • Monitor and report on results 	<ul style="list-style-type: none"> • Embeds circular economy into the culture and operations, starting to implement them as the 'norm'
2 – 3 years	<ul style="list-style-type: none"> • Review partnerships with waste processors and materials recovery facilities • Redevelop strategies to include new opportunities and research 	<ul style="list-style-type: none"> • Provides the opportunity to refine and improve circular economy opportunities
3 – 4 years	<ul style="list-style-type: none"> • Review and refine strategy to include additional opportunities • Realise benefits of maturity • Refine products based on evidence of results 	<ul style="list-style-type: none"> • Update strategy based on previous actions, research and partnerships to consider new and improved opportunities and technologies. This mitigates all noted barriers to implementation
4 – 5 years	<ul style="list-style-type: none"> • Embed in strategy • Continue to review and refine products based on results and evidence • Research and create ongoing opportunities • Continue to develop partnerships across waste 	<ul style="list-style-type: none"> • Commit to include in strategy and ongoing development of constructive, mutually beneficial relationships across waste and LG sectors

Timeframe	Actions	Why Then?
5 + years	<ul style="list-style-type: none"> • Continue to include in strategy • Continue to review and refine products based on results • Continue to foster constructive relationships with waste processors and materials recovery facilities • Continue to research and take up new opportunities 	<ul style="list-style-type: none"> • Ongoing commitment to circular economies, research, development and responsible waste management

It is recommended that specialists from various areas across Council form a committee to develop and monitor the strategy and benefits. While this can be subjective, an example of such is:

- Executive – strategic support
- Finance – procurement and financial advice
- Engineering – technical advice
- Operations – technical advice
- Waste – technical advice
- Independent members – impartial and objective

It is important to note that in developing and implementing the above strategy, Councils cannot ignore the need to partner with their communities and provide education on responsible waste management, sorting and recycling if the MRFs are unable to holistically separate and process contaminated waste. Likewise, advocating on a State and Federal level to support the creation of circular economies in Local Government and responsible waste management practices is also essential to complement and enhance the success of such initiatives.

Group Reflection

Throughout the course of this project, the group reflected on not only the course teachings and learnings from research, but also how the group interacted as a team. Some of the members had worked in groups before, so knew what to expect whilst others had not completed a task like this and felt as if they were thrown into the deep end.

Undertaking an assignment of this scale whilst juggling work and other commitments was difficult for some members, which was apparent and often resulted in unfinished tasks. This lack of commitment caused frustration for some members but were regularly resolved by enhancing communication.

The group went through the relevant stages of 'Team Formation' (Tuckman, 1965), quickly advancing to the Norming and Performing stages where communication and constructive work reached their peak. For example, several members of the group commenting that, whilst they were unsure of the task at hand or the topic chosen, this was quickly overcome by an eagerness to contribute and confidence in the group's abilities.

The group have demonstrated characteristics of a 'High Performing' team (Lencioni, 2002) which include examples of trust, healthy conflict, focus on concise results, promoting cohesion and effectiveness.

The team on some occasions got stuck on the 'dancefloor' and needed a reminder to get up to the 'balcony', to refocus on the bigger picture and ensure that they were heading in the right direction (Heifetz & Linsky, 2002). Upon completion of the report, the group is pleased that they were able to come together to prepare the draft report, and members have taken learnings about the Emerging Leaders Program so far specifically on how different people work to their strengths and weaknesses, which the group feel is key characteristic to becoming a good leader.

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