

## HOW IS THE CIRCULAR ECONOMY EMERGING IN AOTEAROA NEW ZEALAND?

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### RECOMMENDATIONS

The results of the environmental scan show that there is grass-roots activity and that we have some high level conceptualisations of circular economies (CE) however there is little in-between. As such, it is in the middle that activity needs to occur to transition towards a circular economy. We see a need to move beyond business-as-usual with an entity focus to an 'ecosystem phase.' This means that for CE, partnerships are needed across business, organisations, Treaty partners, institutions, NGOs and stakeholders to form collaborations around material and people flows in order for ecosystems to form and create circular economies.

To move beyond to an 'ecosystem phase' we suggest the following as necessary to enable this change for circularity:

1. The impetus to collaborate. We need to have multi-party collaboration to occur that creates access and enables flows of knowledge, materials, people.
2. There needs to be safe space for collaboration to occur. We recommend being grass roots or NGO led (not Government focused).
3. As a result of these processes we expect to see new forms of governance emerge to manage the ecosystems necessary for a CE.

### KEY FINDINGS

- The language of CE is being incorporated by a range of actors across Aotearoa New Zealand with some businesses, social enterprises and NGOs in particular, positioning themselves as 'early adopters' and advocates of the concept.
- There are some emerging connections between CE language and Māori understandings of the 'economy', particularly in relation to rangatiratanga (self-determination), kaitiakitanga (stewardship), respecting the mauri (life-force) of all things, and valuing taonga (treasures).
- The language of the CE is most readily connected to, and reflected in two areas; specific problem materials (like plastic and single-use packaging) in the waste and recycling sector, and taking action on climate change by reducing emissions.

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- While actors and institutions are advocating for action and investment across the waste hierarchy, the focus of most current action is exploring the design, use and circulation of materials, rather than how a more CE could enable redistribution of resources and regeneration of natural systems.

## CONTEXT

Over the last decade the Circular Economy (CE) has emerged as an influential global model for economic development and sustainability. While the CE is not ‘one thing’, but rather a contested practice, a generally agreed key ambition underpinning the concept is to *‘create ‘circular’ material flows that break with the current ‘linear’ economic rationale of take, make and dispose, creating business value for its participants’* (Corvellec et al. 2020, p. 97). Within literature and practice there are debates about whether the CE can actually deliver the radical transformation needed to regenerate the environment, redistribute wealth, improve labour conditions and create resilience, or whether it has (and will) predominantly focus on the ‘efficient’ flow of materials and waste reduction without challenging the extractive growth-oriented status quo of production and consumption. To track these debates, recent research has sought to understand how the CE is emerging across different contexts in government policy and everyday business and consumption practices (c.f. Corvellec et al., 2020; Friant et al., 2020).

To explore how the CE is emerging in Aotearoa New Zealand we undertook an environment scan in August-September 2021. We used a simple, systematic Google search to:

1. Show the actors and institutions in Aotearoa New Zealand who are using the language of CE to narrate their practices
2. Show whether and how Māori terms and approaches are used in relation to CE
3. Show what sector and pillar of the CE and waste hierarchy actors and institutions are focusing on.

## METHOD

We used a simple, systematic Google search to undertake this scan between August-September 2021. We used the following four search phrases:

1. “circular economy” AND “New Zealand”
2. “circular economy” AND “New Zealand” AND “design”
3. “circular economy” AND Māori
4. “circular economy” AND “New Zealand” AND “waste”

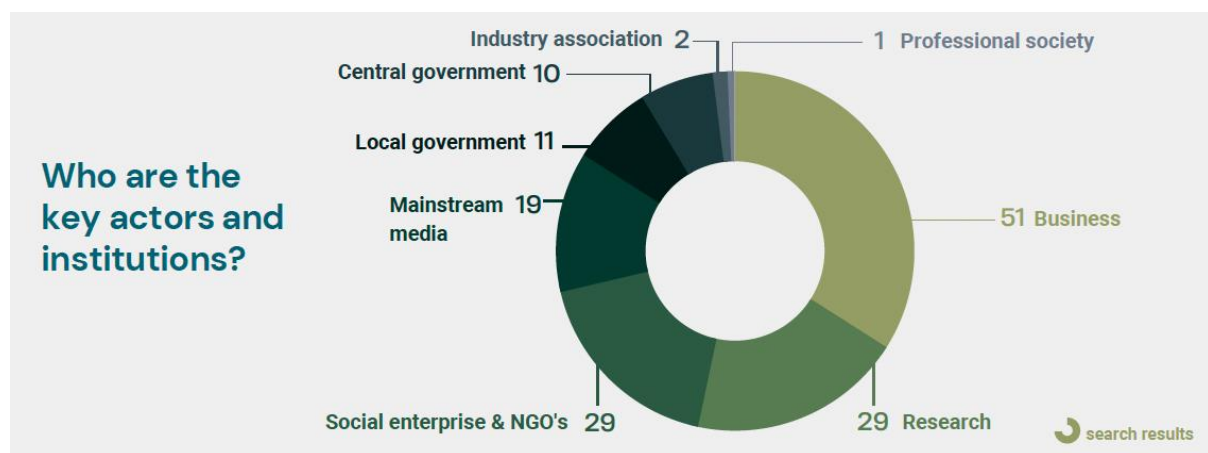
To reduce the impact of Google’s personalised algorithmism we used incognito and ‘private browser’ modes. For each of the four search phrases we downloaded the first 10 Google pages of results and saved these to separate folders. In setting up our four searches we specified a timeframe of the last calendar year and set the language to ‘English’ and ‘Māori’.

To undertake the analysis we firstly moved the results for the four searches to a spreadsheet, removed duplicates, and combined into a master spreadsheet. This master spreadsheet contained 150 distinct search results (or data points). We used a combination of existing codes/categories (such as the waste hierarchy and Ellen MacArthur Foundation’s 3 pillars of the circular economy) and inductive thematic analysis to create new categories to code the data.

There are a number of inherent limitations to any environment scan, including; methodology, searching engine and protocol, keyword selection, and analysis approach. We appreciate that there may be other actors, institutions, and practices occurring in Aotearoa New Zealand that reflect some aspect of a CE which are not captured in our environment scan and perhaps some included that would not normally be. However, the underlying point of this environment scan is to show which actors and institutions are deliberately using the language of CE to narrate their practices, and what their priorities are at a specific moment in time in Aotearoa New Zealand. This information will be used to provide a baseline for researchers working in RA.1.3 of the Āmiomio Aotearoa Circular Economy research project.

## RESULTS

Our results show that businesses, researchers, social enterprises and non-governmental organisations are the three largest groups using the language of CE<sup>4</sup>. These three groups use CE language primarily in relation to; waste reduction and minimisation, reducing CO<sub>2</sub> emissions and responding to climate change, and transitioning to a more CE. Mainstream media reporting that uses the language of CE also reflects these three foci. Central government agencies are primarily using the language of CE in policy documents and strategies relating to; reducing CO<sub>2</sub> emissions, addressing climate change (for example in transportation and infrastructure investment), and ‘transitioning to a CE’. Local government are primarily using the language of CE in relation to; waste reduction and minimisation, and addressing climate change. Overall, the results suggest that the language of CE is being incorporated by a range of actors and institutions across civil society and the economy with some businesses, social enterprises and NGOs in particular, positioning themselves as ‘early adopters’ and advocates of the concept.



<sup>4</sup> In the data that follows we report on the number of search results returned. For example, our data shows that there were 51 instances of ‘businesses’ using CE language. This does not necessarily mean that there were 51 different businesses, but rather that there were 51 search results returned where businesses used CE language. The same approach has been used throughout the reporting of data in this summary.

## How are Māori terms and approaches used in relation to CE?

Our results shows a total of 22 data points where CE language was used in connection to Māori understandings of the economy, specific projects and/or practices. We found 10 instances where CE language was used in relation to the 'Māori economy'. In these instances, the 'Māori economy' was used to refer to a fundamentally different way of understanding both economic exchange and purpose to Euro-centric capitalist framings of the 'economy'. Māori understandings of 'economy' tended to be more holistic, accommodating diverse transactions and values, and emphasising rangatiratanga (Māori-led self-determination and governance). In other instances, CE language was used in connection to kaitiakitanga (stewardship), respecting the mauri (life-force) of all things, and valuing taonga (treasures).

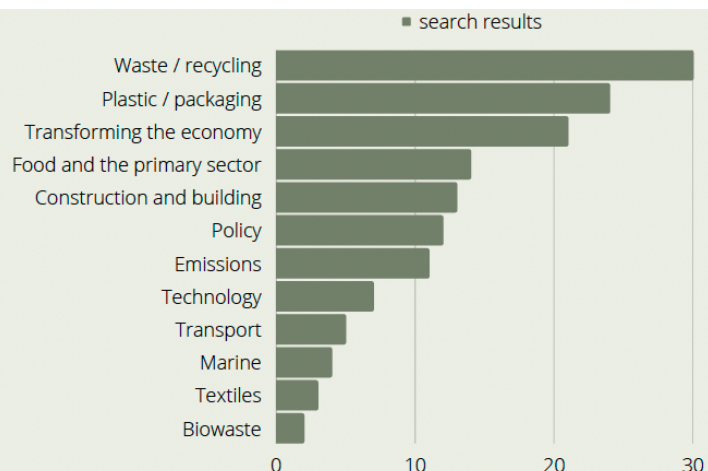
### How are Māori terms and approaches used in relation to the circular economy?



## What sector and emphasis of the CE are actors and institutions focusing on?

To understand how the CE is being used in relation to specific sectors and practices, we used an inductive approach to create sector codes and then grouped results into these. Our results show that the top two sectors where CE language is used are waste and recycling, and plastic and packaging. The third top sector related to 'transforming the economy'. We coded instances of CE language to this category if the focus was on system wide change or transformation of the entire economy (including both production and consumption practices, social licence and norms, and policy/regulation). The findings suggest that the language of the CE is most readily connected to specific problem materials (like plastic and single-use packaging) in the waste and recycling sector. These concerns prompted by everyday interactions with waste, recycling and plastic appear to provide an accessible and tangible entry-point to connecting with the language of the CE.

### What sector are actors and institutions focusing on?

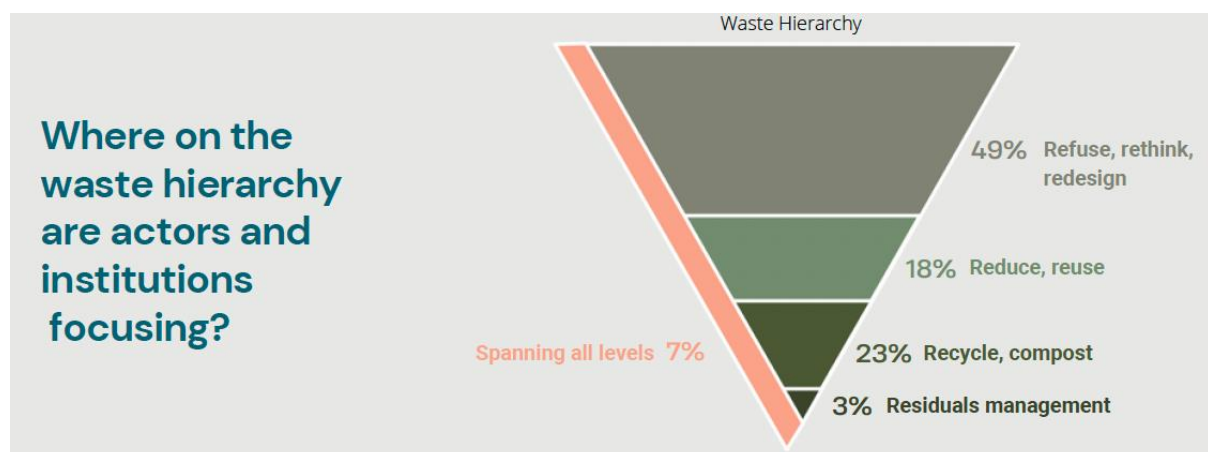


To understand how CE language was being used to create a vision for the future, we used an inductive approach to develop 10 desired outcome themes, and then grouped search results into the 10 categories. The results indicate that the language of ‘transition’, ‘journey’, ‘movement’ and ‘shift towards’ a CE for long term sustainability are the two most common desired outcomes. Waste reduction and recovery, recycling, reducing plastic, and climate action are other desired outcomes that may be achieved through a more CE.



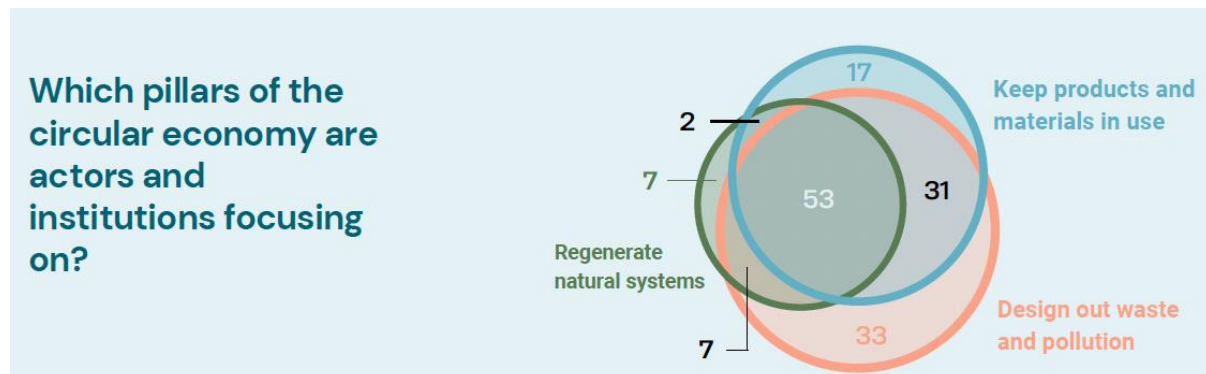
To understand where actors and institutions are focusing their attention, we categorised results using two existing frameworks – the waste hierarchy (Zero Waste Europe, N.D), and the three pillars of the Circular Economy (Ellen Macarthur Foundation. N.D.). We briefly analysed each of the search results to determine where on the waste hierarchy actors and institutions were using the language of CE, either by explaining their own practices, or advocating for action and investment.

For the waste hierarchy the results indicate that action and advocacy is prioritised more towards the top (refuse, rethink, redesign and reduce/reuse). Given a large number of the results focus on waste minimisation, recycling and plastic, it is perhaps unsurprising that there is also some focus on the lower end of the waste hierarchy (recycle/compost).



For the pillars of the CE, the results indicate that more actors are focusing on pillar 1 (design out waste and pollution) and pillar 3 (keep products and materials in use). There were few search results that specifically mentioned pillar 2 (regenerate natural systems). Those results that did specifically mention pillar 2 tended to be advocating for more focus here, rather than narrating practices or actions already underway to achieve this. The findings suggest that the language of the CE to date has had most uptake in exploring the design, use and

circulation of materials, rather than how a more CE could enable regeneration of natural systems. This reflects what other researchers have noted, where the language and practice of the CE has predominantly focused on the 'efficient' flow of materials and waste reduction without challenging the extractive growth-oriented status quo of production and consumption more generally (c.f. Manninen et al. 2018; Schröder et al. 2019).



## CONCLUSION

The circular economy in Aotearoa New Zealand is emerging. The method we have undertaken provides a snapshot in time of the circular economy in AotearoaNZ and creates an initial dataset of where we are at. This data is showing the start of the journey for many organisations in conceptualising and enacting circular activities in everyday practices. However at this stage we see most activities to be focused around products and the material circulation of those products. Reducing waste through design and reuse is an important start on a circular journey but for a circular economy to be realised it is not an end-point.

We expect things to change quickly as these organisations move on their circularity journey. We can see that there are grass-roots activity and that we have some high level conceptualisations however it is in the middle that we need activity to occur to push the circular economy forward. We are calling this the 'ecosystem phase' and by this we mean that for CE we need to see partnerships across business, organisations, Treaty partners, institutions, NGOs and stakeholders to form collaborations around material and people flows. This phase is not insignificant to enable circularity but is perhaps a hurdle for those currently adopting a business-as-usual approach.

We expect to see new business models and transitions from business-as-usual emerging from such processes and indeed based on the data generated for this report we expect to see these changes emerging over the next 2 years.

## References

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