Sustainable Business Network

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The Circular Revolution

Turning the wheels of our financial systems towards a sustainable future

A call to action for Aotearoa New Zealand

August 2022

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Executive summary

A simple truth: time for action

We are at a critical juncture in history. A place and time where we look extinction in the eye and see our own reflection staring back. Regardless of how confronting the view, as human beings we possess an innate ability to avert our gaze and tell ourselves everything will be OK.

The simple truth is we live on a planet with finite resources. Yet our consumption of these resources is growing exponentially. Without widespread change that impacts every life, and every part of living it, it will not be OK. As noted in Aotearoa New Zealand's first ever Emissions Reduction Plan: "Approximately 45% of global emissions come from making products. Of these emissions, up to 80% are created in the design stage."

We have a choice to make: invest in our planet or forfeit our lives and the lives of generations to come.

But when the task of saving the planet is so immense, how do we begin, and what action can each of us take?

This report is a collaboration between the passionate sustainability professionals within Grant Thornton New Zealand and the Sustainable Business Network (SBN). It is the culmination of interviews with experts, practitioners, businesses and government across the circular economic spectrum. It comes with a clear and unashamed purpose: to shake our audience awake, and in doing so, compel everyone to act.

The responsibility lies with all of us. We have just enough time left to do it, but only if we start right now.

Pulling the right levers: removing the financial barriers to promote a circular economy

While much of the damage done to our environment is irreparable, we still have options. Enter the circular economy. An economy where every product has a life after its initial purpose. An economy where products and materials are kept out of landfill and given new life over and over again. This is the future – not by choice, but by necessity.

As with every economy however, customer demand is a primary driver, and demand for circular products begins with a mindset change. Although there are already many businesses with circular business models within Aotearoa New Zealand, they are a minority. The vast majority of products produced and sold still end up in landfill. In this report we ask why the movement towards circularity is so slow. We unpick the financial barriers preventing businesses from becoming circular, the role of government in setting incentives for business to drive change, and how those who hold the purse strings or act as advisors can provide more support. We also don't leave out you and me, the customers, because if we don't all act, we won't get out of this alive.

NZ Government: a key role to play

The responsibility to grow our circular economy lies with every individual. But the Government has significant power to effect the pace of change. Currently, progress is slow. The business community needs effective incentives and easy access to government funding for circular initiatives. It also needs penalties for linear businesses to send a strong message about the new way forward. The low hanging fruit is lying in plain sight. We must implement the Tax Working Group's recommendations to incentivise sustainable business practices. We must consider new tax measures to accelerate change, and revisit GST for product leases. Beyond that are the levers around depreciation, certification and governance, along with easier access to new and improved grants.

These recommendations won't make a difference in isolation. Together they can. The message to government is loud and clear. Our progress towards circularity is too slow because businesses will not move from a linear model until it is in their best interests to do so. Customers are reluctant to pay for circular products until they can compete at the checkout. We need to tilt the playing field the other way. The biggest influencer in this shift is the Government.

Banks and lenders: a shifting of mindset and skillset

Our discussions with banks and other lenders revealed there is room for improvement. Most walk the talk around managing their own environmental footprint. However, this currently does not flow through into recognising the value associated with circular business models. Lenders report they are inundated with requests for sustainability funding. But they admit they lack people sufficiently trained around key circular metrics. This means they revert to traditional commercial metrics to assess value and risk in their approval process. It makes for a difficult financing discussion between both lender and borrower, and it's a clear disincentive to move away from a linear business model.

Businesses: start at the very beginning

Successful circular businesses begin with a clear purpose and vision. For those starting out, this is often there from the outset. Think, waste plastic into children's bikes, old blankets into new clothing. These and many others have recognised the value of integrating circularity into their business model and product design. For those linear businesses wishing to become circular, the answer lies in examining the business from beginning to end. Examining how to change from non-renewable virgin materials to sustainable ones, how to modify production methods, how to fund that change and how to maintain customer loyalty. Everything is touched by a circular model. The secret lies in seeing the bigger picture, knowing what grants and funding options are available, and working with advisors who can help navigate the path ahead. If your current advisor is not informed about circularity, find one who is.

Longevity is the goal and as access to non-renewable virgin product reduces, now is the time to future proof your business while you still can.

Customers: take time to care

Fast, cheap and convenient defines the current customer world. However, as landfill increases and pollutants like plastic continue to invade the environment, this way of life is not sustainable. It's time for every one of us to take personal ownership and accountability for the impact our buying decisions make on our environment and our economy. This means taking the time to learn more about the products we buy. It means re-using before replacing. When we must buy new, we should be seeking out products that are built to last, can be repaired when needed and made with materials that are both recycled and recyclable.

This report has been created as a guide to change and as a conversation starter for those who realise there's more work to do. We do not have all the answers. But we hope we've uncovered some of the most important questions that need to be asked. We've also provided some practical solutions to ignite change and present a compelling argument for choosing to put our planet first.

> **"Competition in the marketplace should not be between a company wasting the environment and one that is trying to save it."**
>
> **- Paul Hawken, The Ecology of Commerce**

1 The case for circularity

The case for circularity

Now is the time for accountability. Previous major extinctions have been primarily driven by climate change. This time the climate crisis is being driven by us.

The statistics make for grim reading. Since 1970, the human population has doubled, the global economy has grown fourfold, and trade has expanded tenfold. This is a trajectory that, in the absence of circular practices, relentlessly pushes up the demand for energy and resources. The world is using up more than 100 billion tonnes of natural resources per year while global recycling of raw materials has fallen. If we continue at this rate, global use of materials is projected to balloon to 170-184 billion tonnes per year by 2050. However, water, oil, natural gas and phosphorous will be gone long before then.

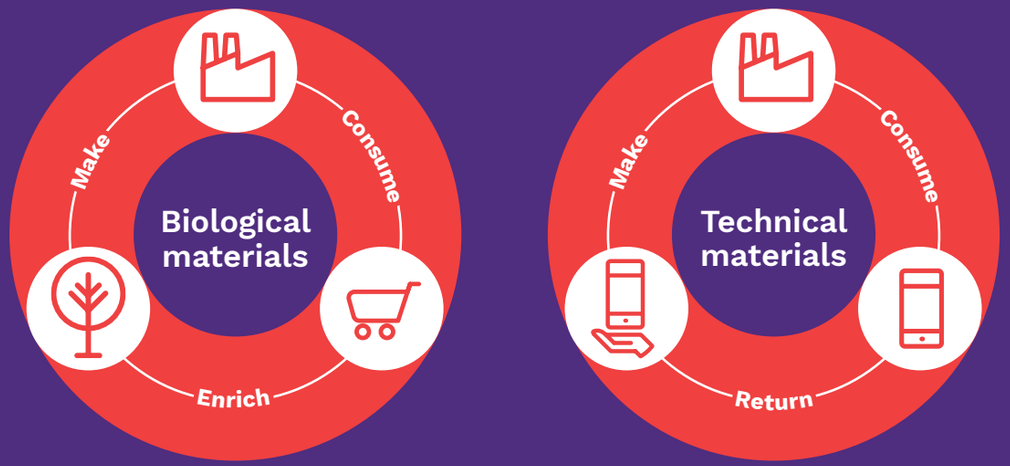
Here in Aotearoa New Zealand, we are taking steps to protect our finite resources and to reduce greenhouse gas emissions. We have passed the Zero Carbon Act. We have signalled the end of deep-sea oil exploration. The Government has enacted world-first climate reporting legislation for certain entities and established our first Emissions Reduction Plan (ERP). We have aspirations for an innovative and high value export economy within a thriving bioeconomy by 2050. And nature-based solutions are recognised as an essential part of our economic success within all sectors.

But despite this, nearly all of the resources we still use are extractive and not regenerative. The vast majority of businesses within Aotearoa New Zealand are still linear with a take, make, waste mindset. We take what we want from the environment to make products which end up as waste at the end of their often-short lifespans. If we are to protect our long-term survival, we must keep our finite resources at their highest use-value for as long as possible and regenerate our environment rather than degrade it. This is the circular economy.

In circular economies, resources are never abandoned to become waste or pollution; instead, waste is designed out of the production process and the resources we use are kept in circulation.

Linear economy: Biological and technical materials are commingled and energy from our finite resources is used.

Circular economy: Resources are kept in use for as long as possible, then recovered or regenerated. Energy from renewable resources is used.



Substantial economic gains are here for the taking

Studies that have estimated the benefits of a more circular economy reveal the scale of gains for Aotearoa New Zealand's society and economy will be substantial. SBN's 2018 report, *A Circular Economy for Auckland – scoping the potential economic benefits* estimated a benefit of $8b by the year 2030 to the Auckland economy alone. Another study conducted in 2016, *The Ex'tax Project* found shifting EUR €554b of taxes from labour to pollution and resource utilisation throughout the EU would create jobs for 6.6m more people, reduce carbon emissions by 8.2% in four years, and save €27.7B on energy imports in five years. The argument for circularity is loud and clear.

Business models for going circular

Aotearoa New Zealand is on a path to a more environmentally respectful, socially just and economically prosperous future. It's a recognition that people, society and the economy are simply a subset of nature. This rethinking is being increasingly informed by Te Ao Māori practices and revisiting how we transform to a more holistic social-ecological system. Hearts and minds are changing, but ideologies are not enough. We must arrive at a place where there is no longer a trade off between the economy and the environment - both must thrive.

The simple fact remains most businesses in Aotearoa New Zealand operate a linear business model, where their outputs ultimately end up in landfill. While the time it takes for them to get there may differ, the destination is largely the same. Encouragingly, there has been a substantial increase in environmental awareness in recent years. Many businesses have introduced recycling or regenerative practices into their business models. This is movement in the right direction, but it becomes a question of depth and pace. How much have they done and how far into their business model does it extend? How real is it or is this a case of 'greenwashing' - the presentation of a green façade with little substance sitting behind it?

Our current approach to sustainability and what we perceive to be circularity often defaults to recycling, which is very much the ambulance at the bottom of the cliff. According to Kantar's 2020 Better Futures Report, 90% of Kiwis surveyed 'mostly' recycled. But only about two thirds (64%) try to maintain items to avoid purchasing new ones. While giving customers the ability to recycle is much better than simply doing nothing, it's only the beginning for a business wanting to design waste out of its products and services.

To aid the transition to true circularity, business owners must first possess the desire and commitment to do so. Once established, understanding the different business models that sit within the circular definition is the next step. We believe many, if not most, existing linear businesses can adopt one or more these models to actively participate in the circular economy. This means if they possess the will to transition, the way to get there becomes clearer.

> **"Creating a circular business wasn't an easy thing to do but it was the right thing to do." [1]**

The five main categories of circular economy business models designed to create, deliver and capture value

Product as a service (PaaS)

The PaaS business model sells the use of a service or product, but not the product itself. The core function and benefit of the product is provided to the customer, but the manufacturer or distributor retains ownership of the product and its materials. They take responsibility for maintaining the product and keeping its materials at their highest value use – and out of landfill. Examples of PaaS products and services include leasing of equipment or transport solutions, hiring tools or renting apparel.

Circular materials

These materials are renewable or recycled resources that are kinder to humans, animals and the environment. Certain plastics and metals can be repurposed for their next lifecycle in a new product, for example, the rare earth elements and metals Apple removes from old phones to make new ones, and Citizen Collective's process of turning bread into beer and then back into bread again.

Product life extension

As the name suggests, this model maximises the life of a product for as long as possible before repurposing or disposing of it, ie, it's built to last. This is achieved by designing products to last as long as possible, using robust materials and making repairs easily accessible to users. Extending the life of a product can involve refurbishing or rebuilding existing equipment instead of buying new parts or machines. Second hand stores and websites, and donating goods are also excellent examples of how we can extend the life of our products – if you no longer have a use for a certain item, someone else will.

Product loops

This involves circulating products back through the business or its allied organisations to retain or recapture the value of materials through re-use, remanufacturing and/or recycling. For example, Interface Inc has implemented a take back system for millions of kilogrammes of used carpet and carpet tiles. These would otherwise end up in landfill. They are turned into yarn for new products or granules for the backing of newly produced tiles.

Use optimisation

Use optimisation maximises the utilisation of a product or service more efficiently. This model often comes in the form of sharing platforms which match and connect buyers and vendors seeking things like second hand goods or spaces to rent for various purposes. Trade Me, Sharedspace and Mutu's xChange platform (see p28) are good examples of this.

Tips for businesses starting their circular journey

1 Start mapping the full lifespan of your products.

This is your first step towards selecting the right circular models for your business. Identify all of the physical materials and goods you source, add value to and provide to others. Know how, where and by whom those goods are used or transformed across their lifecycle. Armed with this knowledge, you can start to pursue opportunities for improvement through product innovation, adaptations to your business model, and collaboration with others across the value cascade (see p16). The SBN Product Stewardship Resource Sheet and Future Fit Business Benchmark are invaluable open-source business tools that can help you get started (see p35).

2 Put the circularity mindset in practice by questioning your organisation's disposal habits:

- Could someone else use this product? If so, how can they access it?
- Can products be serviced or prepared?
- What else could this product or its components do?

3 Change your organisational culture and structure.

Another step to organisational transformation is changing what employees see, including the make-up and focus of your senior leadership teams. Many companies are adapting their structures to embrace new senior roles such as Director of Sustainability, which oversee internal sustainability practices. These appointments provide clarity about how circular practices can be incorporated into day-to-day operations. They create a platform for circularity inclusion in operational policies, reporting, and stakeholder communication. This approach may not be appropriate for small organisations, but sustainability should be embedded in all roles to encourage circular strategies and cultures.

4 Connect with other businesses and organisations to help you on your way to circularity.

SBN's Circular Economy Directory (see p35) is the country's first business-to-business register dedicated to creating a circular economy in Aotearoa. It comprises businesses and programmes that can help you design waste out of your business, reduce carbon, help regenerate nature, share and trade your existing resources, extend the lifespan of your products, recycle and compost, and find products and supplies with circular features.

5 Investigate collective buying with like-minded businesses to bolster your purchasing power.

This is an effective tactic used by organisations – particularly smaller businesses within a circular system – to jointly purchase common goods and services like electricity, logistics and even professional services to gain more buying power than they would at an individual level. The cost and time savings gained on sourcing inputs can be better used for investment in the business model.

6 Tell your story loud and clear.

While most organisations with circular approaches understand the benefits to the business, customers and the planet, there is still little mainstream awareness of circularity. Consumers and customers alike may know about sustainability, but circularity is still a 'new' concept. This is where the power of the marketing machine needs to be turned up, telling a loud, clear and compelling story about the business, its purpose and its vision. The more exposure, the more circularity will become mainstream, and with that, more people will consciously and eventually subconsciously, choose businesses that use this model and the values it represents.

Tips for business advisors and customers

Business advisors

Every business advisor and accountant has a responsibility to shift their mindset from profits to planet and this needs to be reflected in the advice you given to clients. Some great places to start are thinking about how your clients could:

- apply Products as a Service (PaaS) to their offering
- source more circular materials
- provide life extension services and what this means for operational support, working capital needs, warranties and guarantees
- work with other organisations to take and use their products and waste and vice versa
- white label or provide their product to third parties to share as a model.

More broadly, businesses on a circular journey will need to think carefully about the foundations of their business from their operating model, transition plan and process improvements, right through to funding options and workshopping climate risk to understand the impact and measures needed for mitigation. Take your clients through a thinking process to help them make the most of their circular decisions.

Customers

We must all make the necessary mindset shift from linear lifestyles to circular ones. We live in a fast-paced world of convenience created by our linear economies. All too often we default to “not having enough time” to find out where our daily purchases come from or where our waste goes. Better understanding of the wider system is a pre-requisite to participating in the circular economy in a meaningful way.

2 The first step to a circular economy: more pragmatism from Government

The first step to a circular economy: more pragmatism from Government

Barrier: Current policies lack specificity around the legislative change required to drive a move towards circularity. At present they are little more than ideological sound bites. There must be much more direction and accountability right across the economic spectrum.

When dramatic change is needed, governments have the tools to influence behaviours. It's time for our Government to be bold and declare circularity as the central organising idea for our economy. To prevent climate change and further loss of biodiversity, it must rapidly transition to policies that support circular economies and provide not only the blueprint for subsequent legislation, but the legislation itself.

The Parliamentary Commissioner for the Environment has spent considerable time evaluating and describing the limitations of the current budgeting and policy evaluation frameworks in Aotearoa New Zealand. He called for a wholesale reconsideration of how we formulate our major public policy investment and Budget approach, calling for, among other things:

- more comprehensive metrics on the environment to be included in the Living Standards Framework (LSF)
- use of much lower discount rates so that we don't routinely discount the future value of circularity by applying simple or inappropriate discount rates
- use of multi-dimensional frameworks that explicitly consider future generations such as those used in Te Ao Māori.

The Emissions Reduction Plan (ERP) outlines strategies for achieving Aotearoa New Zealand's first Emissions Budget. Its long-term vision to 2050 is to have a circular economy and a thriving bioeconomy by leveraging global best practice and shifting customer preferences. To achieve this, one of its key strategic objectives is to support businesses to move to circular practices by:

- leading by example and moving to a more circular public sector which actively reduces emissions, pollution and waste
- aligning regulatory systems and the business environment
- enabling Māori to shape and restore ecosystems that support a thriving bioeconomy, and to benefit from the transition to circular practices
- integrating circular practices across government, communities and businesses
- investigating the creation of a circular economy hub to support the implementation of circular practices throughout the country.

Practical solutions for expediting progress

While it's encouraging to see Government actively laying the foundations for a circular economy, actual progress is slow. Initiatives like the creation of a circular economy hub need to move from "investigation" to planning, design and implementation.

But time is of the essence. What else can be done right now to get a thriving and prosperous circular economy off the ground? Businesses of all sizes need practical solutions, guidance and incentives to transition to circular business models that benefit them, their customers and the environment.

Some of the businesses we spoke to cite a lack of infrastructure for circular practices. This delays their aspirations to go circular and penalises them financially.

A manufacturer we spoke with said they could sell recovered materials from their production lines. However, the ability to tap into a common infrastructure at scale simply isn't there and it would be a huge investment for one business to build this system from scratch.

This is where government could step in to help build an ecosystem to support circular business models that rely on the sale or purchase of second-hand resources to manufacture products - an easy-to-use network to buy or sell used materials for disassembly, refurbishment, repair or reprocessing.

One retailer we spoke with said the lack of infrastructure for processes like recycling increases the cost of going circular. Sending recycling overseas is an option for them, but it's expensive, so customers cover the cost of shipping and get reimbursed with a voucher, which means the business has to foot the bill for these initiatives. Government has the know-how and ability to set up a scheme similar to the All of Government (AoG) panels to help circular businesses use their collective buying power. Systems like this help businesses jointly purchase resources like energy, recycling services, logistics, legal and other professional services including life cycle analyses, tax advice, and procurement services to name a few.

These challenges highlight the lack of value our linear economic system places on sustainable business practices. Government should exercise its power to enforce financial rewards and penalties to expedite the right attitudes and mindsets needed to nurture and grow a circular economy.

The power of procurement

Barrier: The connection between best intentions and executable strategies becomes strained when supply chains don't live up to the standards a business with circular objectives needs. Circularity should flow through a business from end to end, and this means being able to source the right goods from the right suppliers. Government has an aspiration for a more circular economy and considerable power to influence both public and private sector spends. It may have mandated broader outcomes, but the direct connection to choosing circular is weak and the private sector is still working to its own rules.

Government spends some $51b per year. While the private sector is larger, government spending can be viewed as a significant lever in driving change. Using that lever to rapidly become more circular would connect the aspirations outlined in the Emissions Reduction Plan (ERP) to real change in Aotearoa New Zealand, demonstrate leadership and influence the private market.

So how might this be achieved? There's currently a gap between aspiration and action in government procurement. The ERP mentions 'circular' more than 100 times. It calls for leading by example and moving to a more 'circular' public sector. But the government's own sourcing rules don't currently align with this.

The *4th Edition of the Government Procurement Rules* includes four new rules to drive broader outcomes. Rule 20, *Reducing Emissions and Waste* speaks to reduction of waste but doesn't emphasise circularity per se. Rule 20 says agencies *should* support the procurement of low emissions and low waste goods, services and works, and they *should* encourage innovation to significantly reduce waste impacts from goods and services. For core public sector agencies and designated contracts, the word *should* becomes *must.* However, the designated contract areas defined are limited to a few areas such as office supplies and electric vehicles. The supporting guidance first refers the reader to the European Commission's *Buying Green Handbook*, rather than to a body of knowledge and set of resources directly applicable for Aotearoa, which creates another barrier.

Government should strengthen its procurement rules, perhaps with the addition of Rule 20a, which would specifically prioritise the use of materials, goods and services for the circular economy. The *should* could be made *must*, at least for the core public sector. Secondly, supporting guidance could be more extensive and relevant to an audience in Aotearoa New Zealand.

Businesses have a role here too

Kiwi businesses can support the development of the circular economy through what they buy, who they buy it from and how they procure it. Businesses we spoke to acknowledged this, but it needs to be made easier.

SBN's *Sustainable Procurement Leaders Group* includes 37 of Aotearoa New Zealand's biggest procurers. Together they have defined best practice for sustainable procurement and its implementation in Aotearoa. They are also advocating for systemic changes to incentivise and support this movement.

3 Redefining our concept of value

Redefining our concept of value

Barrier: Online delivery. Instant gratification. Convenience without responsibility. This is the lifeblood of the linear economy. Success is measured in high volumes of fast sales instead of delivering products that can be re-used and repurposed indefinitely. As a society we don't value the intangible benefits of circular products and this spans the length and breadth of our take, make, waste economic system – from buyer to seller to landfill. Until this changes, profit will remain king with no compelling reason for linear businesses to change.

The issues of accurately ascribing values to activities stretches across our economic system. Linked to GDP, there is the ever-growing demand for more, more, more. Success is determined by volume and when we overlay a consumerist society, we're in trouble. In a society that determines happiness not by wellbeing but by material possessions, it is little wonder we have businesses that exist solely to meet our insatiable demands. The more they can make, the more we want. The trouble is Earth cannot give us more indefinitely. Eventually more will become less and less will become none. Where does that leave us?

> **"Every day, customers vote at the checkout. The disparity between circular and linear needs addressing now." [1]**

We're at a crossroads. We can re-write what we value and how we value it. We can move away from the traditional use of GDP and simple profit, towards a sustainable future where value is ascribed to what we leave behind, what we save and what we re-use. GDP is a measure of total production, but it does not consider loss or deficit incurred.

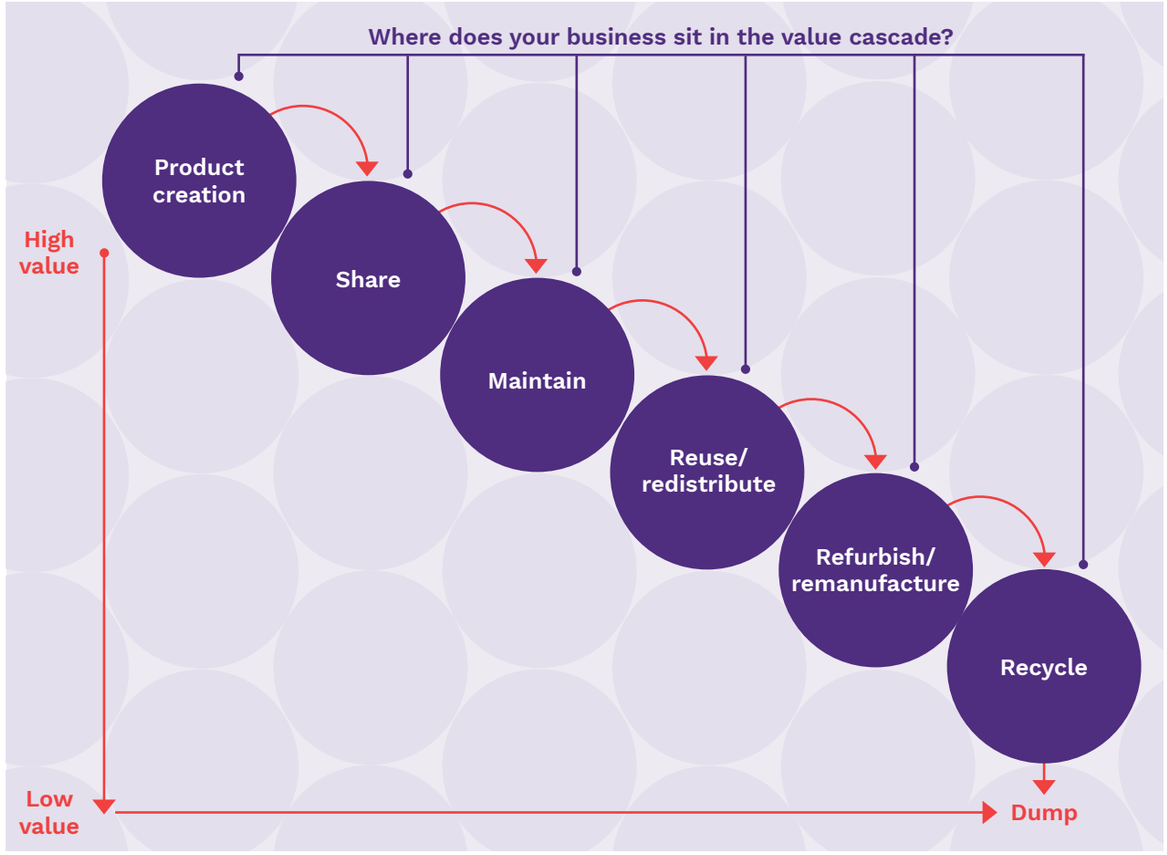
This perception of what's valuable transcends our financial system. It throws up five key roadblocks to circularity:

1. Our existing systems don't accurately capture and report the value of keeping resources above ground for as long as possible or adopting more sustainable business practises. Current financial tools only analyse full value chains, based on linear economy mindsets and assumptions. These include the subsidised and condoned abandonment of assets as waste and pollution. This leads to the over-valuing of unsustainable activities and the under-valuing of sustainable alternatives.
2. Innovation is frequently perceived as risk. Switching to circular production methods is not supported by our financial systems. Funders shy away from uncertainty in favour of tried and tested ways of ascertaining profitability and preventing loan defaults.
3. The retention, repair and repurposing of products is reported as a cost, rather than a retention of value. This means it's cheaper to dispose of assets and materials as waste, rather than retaining and repairing them.
4. The depreciation regime incentivises writing off materials and resources that could be retained or shared. Conversely, the loss of resources and materials as pollution and waste is at best only treated as a cost in terms of the price of disposal or mitigation.
5. The definition of leasing or hire agreements have to be carefully negotiated, to ensure the GST treatment is appropriate (see p26). This delays the adoption of re-use and Products as a Service (PaaS) offerings.

These roadblocks and potential solutions for some are addressed throughout this report.

Long term product value

As Aotearoa New Zealand is very much in its circular infancy, we offer up a simplified guide for businesses when considering the lifespan of their products and where they sit in the value cascade. This is broadly based on the famous “Butterfly” diagram by the Ellen MacArthur Foundation. Here, value is represented by the longevity of a product in circulation instead of its monetary worth.



We only need to look back one generation to see a different world to the one we inhabit today. We have lost the art of preservation in favour of disposable and convenient. The jobs and skills associated with repair have also disappeared from our workforce. To embrace circularity, we need to start valuing and maintaining the products we buy, and invest in the quality that justifies repair. The benefits of circularity extend beyond environmental gains and into our socio-economic landscape; the resurrection of old skills will provide new employment opportunities for generations to come.

Share: Many assets or products are used for a small portion of their lifespan. The default position is to own an asset and leave it idle for long periods. Businesses that have embraced sharing pool their capital and coordinate use of an asset through sharing.

Maintain: This bucks the trend of excessive consumption and buying new, and it has caught the attention of the Government. Following a petition by the Repair Café Network, the Minister for the Environment is considering whether to bring a Right to Repair Bill before parliament. If the Bill becomes law, manufacturers will need to ensure their products are repairable, instructions for repair are provided with purchases, and spare parts are made available for an extended period of time. Customers will also be able to get their items repaired by whichever company they choose, instead of licensed or certified repairers which are often more expensive.

Reuse/redistribute: An alternative to buying new and maximising the value of products already produced. Some of the most common examples in Aotearoa New Zealand are office furniture, IT equipment, phones and whiteware.

Refurbish/remanufacture: The process which enables products to have a new life. For example, products like IT equipment or photocopying machines are remanufactured or refurbished at the end of their first-use life to fulfil the same function again to the same standard.

Recycle: The conversion of waste into reusable materials. However, in essence, it’s only one step away from the dump. Our rapid consumption of products outstrips our ability to keep them higher in the value cascade, which is why recycling sits low in the model.

Dump: Value and resources are completely lost. These items can’t be salvaged anywhere else in the value chain and are the by-products of a linear economy.

Businesses need to consider:

- where their products sit in the value cascade
- if products or processes be redesigned to move up the value cascade, creating more value for the organisation while contributing to a more circular economy
- if their products on the fast-track to landfill

Products as a Service (Paas): an example of the value cascade in action

Products as a Service (PaaS) is not new. People already hire things like printers, vehicles, sports equipment and heavy machinery. But this has recently expanded into new areas such as car-shares, app-based e-scooter hires and even reusable take-away coffee cups.

Products in these models tend to have higher, more efficient use over time. PaaS is also an enabler for maintenance, refurbishment and recycling as well as the potential for re-use and redistribution.

Consider a cheap DIY power drill. At home it might spend the vast majority of its life languishing on a shelf. But a quality drill in a shared workshop or hire company is used more. The increased value of its use justifies the drill being built to a higher standard. It can be designed to be easily dismantled, repaired and recycled. This can also extend beyond the individual product. Whole systems of distribution, support and retrieval can be developed around it to help maximise efficient use of the resources.

In PaaS systems, revenue from the product is not limited to a single point of sale. It comes from ongoing use and/or the transfer, rather than disposal of the product's materials. This disincentivises the deployment of products with a short lifespan. It negates the need for built-in obsolescence or disposability. Instead, PaaS models reward participating businesses for repair and maintenance. They re-harvest parts and re-manufacture products to maintain the value of the assets.

For customers, paying per use can provide better value. It also disincentivises the wasteful use of products.

By their nature PaaS businesses encourage the mindset of products as assets. This model motivates the business to maximise useful product life through proper maintenance and care. Many products no longer fit for purpose can be recycled or used for parts. Users of the product are not continually encouraged to upgrade or replace assets, but if their needs change, the supplier can provide an alternative solution and keep both products in circulation.

Accounting for value

Our conventional approach to value, designed by linear thinking, is not well suited to circular thinking. In pure accounting terms, value is described in some depth but quite narrowly. It often slumps to the lowest common denominator of value – profit. Money is easy to understand. Financial practices can undervalue assets, and conventional approaches to funding can limit circular businesses. Lastly, financial reporting is still catching up to help businesses tell the whole story. These slow the emergence of the circular economy.

Financial accounting rules like depreciation lay out how the value of assets are to be treated in a set of accounts. Current accounting methodologies, such as Generally Accepted Accounting Principles (GAAP) and tax codes can penalise the redeployment or repurposing of assets. A set of accounts will contain the residual value of an asset, but that could be defined incorrectly. It could be either too high or low depending on the financial treatment. If it has been rapidly depreciated, the book value can be lower than its value in the circular economy. A lack of value recognition can mean useful materials are written off and landfilled.

For example, a company might value an asset purely based on its recognised financial worth, ie, “How much can I get for it?” rather than the value of extending the life of the asset, ie, “How can I extend its use to keep it out of landfill?” If the product comprises reusable metals like copper or iron, its financial worth will likely be measured against an abstract exchange or market value. But the value of the copper in an item as a measure of value is less than the true utility value of the underlying item (such as the drill example used above). A better approach is to seek to understand the value of the asset and how its lifecycle can be extended, or if parts of the asset can be offered to others who can make use of it, as Mutu xChange does (see case study on page 28).

Conventional approaches to funding, banking and credit also limit circularity. The term sheet of a start-up might talk about impact, value and benefits for future generations. But bold and new can sound like risk, for which a premium is normally expected. This might mean the start up or new initiative doesn’t get the funding needed. A better approach is for funding institutions to build their own understanding of circular and sustainable funding. Some have done this and have products on offer to the market.

But more can and must be done

In our research, we heard about financial advisors guiding businesses towards short term options. These were based on conventional metrics such as simple profit and quick ROIs. Less risky perhaps, but in the long run less value creating and lacking the support for the sustainable outcomes the business was seeking. A better approach is for advisors to upskill themselves to understand the real value created from more circular approaches and, along with their clients, take a longer term - dare we say - multigenerational approach to investment decision making.

Accounting practice and reporting has started to improve, with the development of integrated reporting (<ir>) and multiple capital approaches. To date these are mainly being used in larger corporates. These businesses have the means to collect the data, produce the reports and pay for third party verification. Wider application is still ahead of us in Aotearoa, particularly for the mid-market. Smaller organisations struggle to capture data on social and environmental performance. As an economy dominated by SMEs, with a healthy dash of family firms thrown in, we need a set of tools that are fit for purpose. The Future Fit Business Benchmark is one such tool (see p35).

In Aotearoa, companies are not currently required to collect or release data about their resource use. Many do publish sustainability reports, again mainly in the large corporate sector of the economy. But there's little evidence of circularity and resource use in their accounting. Greenhouse gas (GHG) accounting is becoming more widely understood. Carbon (or carbon equivalent) as a resource is starting to be measured, but not by all. And of course, this is a long way from capturing all material impacts and opportunities in an organisation. A better approach is for advisors and clients to undertake value chain mapping to understand the various impacts they are creating, not just for GHG but for materials as well.

4 Rethinking our financial systems

Rethinking our financial systems

When the need for circularity is abundantly clear, why is the pace of change so slow?

The answer lies in the sheer longevity our linear system has enjoyed to date. Since the industrial revolution, wealth creation has relied on extraction of Earth's resources. Generations have relied on it; economies have been built around it and success has been measured by the profits it generates. And for those who have benefited from that profitability, life has been good. So, when the evidence for change is clearer than ever, how do we divorce ourselves from this dependency and take a more renewable path?

In this section we go to the heart of the matter, the financial systems that shape our perceptions of value, and the behaviours these perceptions create.

The right metrics for circularity

Barriers: To date, no one standard metric, tool or methodology for measuring circularity has achieved widespread adoption. For a business to become circular, it must first understand its current position, the target it is aiming for and how to measure progress towards it. Until there is clarity around what to measure, why and how, every business will continue doing their own thing, in their own way.

While the idea of the circular economy is not new, and circular economy strategies are becoming visible inside businesses, some of the tools to drive this innovation and change are yet to be built. Simply put, the shift toward circular business models will need different metrics and ways of measuring than those we are familiar with for the take, make, waste economy.

To achieve the necessary transformation in our financial systems, we need to demonstrate the value circular business models deliver over their linear counterparts. We also need the ability to compare the merits of different circular business models. Organisations need to be able to track their relative progress.

It's fair to say the tools are in a process of development, however there isn't a simple, single metric. What is required is use of the right kinds of metrics. Metrics and measures are needed across the lifecycle: for finding and assessing possible solutions and investment choices, developing business cases and implementing them, and for reporting.

In their 2020 report *Circular Metrics for Business*, the Circle Economy and PACE have created an impressive resource that captures the landscape of current metrics and what they are useful for. They note: "At this point, no standardised metrics yet exist to measure the performance of businesses in their circular economy transition". Their report goes on to guide "change agents in their search for the right measurement tools."

According to Circle Economy, Businesses need metrics to innovate across four stages in the business lifecycle:

1. **Create awareness and set a baseline** to understand what circularity is and how current business operations can be considered. Where are is the business now? Where does it need to be?
2. **Identify and track opportunities** to uncover what shifts can be made, and the relative priorities of those options. What opportunities are there? What should be explored? What investigations should be funded?
3. **Assess and compare potential business cases** to explore what a new line of business or even operating model could look like with more embedded circularity. What are the options? Does the business case stack up?
4. **Validate and share results** to demonstrate to customers and other stakeholders how circularity is becoming more and more part of what the business does. What needs to be said and to whom? How can it be verified?

The Circle Economy report also makes the distinction between the types of metrics. As we noted above, no single metric is capable of meeting all the needs for decision making, business operation and reporting. The report provides a useful categorisation of three types:

Headline indicators are all about change and making the case for why it needs to happen. Examples at this level include a percentage of circularity score, how much virgin material is used and the business's share or footprint of scarce resources like water, oil and rare earth elements.

Performance indicators reveal what needs to change in the organisation's value chain and can help assess its current state. But a deeper dive into the business's processes, and those of its suppliers and end users is also needed. These will vary depending on the particular business and hence value chain. Examples at this level might include energy use, and the rates of re-use, refurbishment, remanufacture and recycling.

Process indicators help implement changes, and they measure the progress a business is making. To create the changes monitored by the performance metrics, first something needs to be changed. This often starts with shifts in sentiment or behaviour, either in a team or customer base. Indicators of process improvement can also include what a business has stopped and started doing. Examples might include employee and client awareness, or how the business measures, rewards and links circularity to incentive programmes and remuneration.

Businesses don't have to wait for a comprehensive toolkit or a set of metrics to begin their circular journey. There are quite a few with increasing uptake. Many are quite technical, such as full lifecycle analysis (LCA), but there are also increasing amounts of expertise to help organisations use them. Tools are available to specifically measure the circular performance of an organisation or a particular process. Examples include: Circulytics, the Material Circularity Indicator and the Circular Transition Indicators tool. thinkstep-anz also recently launched another tool in this space.

Profile Group has worked with circular design and innovation consultants Circularity to become the country's first business to measure the circularity of products, material flows, and business operations using the Circular Transitions Indicator tool.

Of course, these metrics must be used in conjunction with other key financial metrics and, these days, those around greenhouse gas emissions reduction, to make sound decisions and comparisons.

As these metrics develop further and gain adoption, they will become increasingly powerful tools for risk assessment, governance and communication. Customers too will use them every day to "vote" at the cash register. Regulators can also use them to design incentives for good performance and disincentives for continuing damaging practices.

However, even in today's data-driven, automated world, developing this reporting isn't straightforward. SMEs increasingly use systems like Xero for accounting and tax purposes but incorporating sustainability or circular economy KPIs into them is still in its infancy. This means those who commit to better reporting need to spend considerable time and effort to design and implement it.

To accelerate the development of a circular economy in Aotearoa New Zealand the Government should explore further ways to support the development of standardised and accepted metrics for business use and wider adoption. This could include incentives for businesses to measure the inputs and outcomes of circular economy business models and approaches.

Reporting and stakeholder communication

Barriers: Current reporting standards don't yet specifically address or quantify circular initiatives and outcomes. Internationally accepted standards for measuring and reporting circularity are only in the early stages of use.

Businesses are facing increasing expectations for transparency from their key stakeholders about how they contribute to society. Profit is no longer the sole criteria by which the contribution of businesses is measured. A company's impact on its employees, society and the planet is gaining importance with a wider group of stakeholders. A circular economy requires extended reporting and a shift from 'complacent compliance' to 'reporting preparedness'.

However, our rules-based economy only moves as fast as mandatory legislation and industry regulation. On one level there has been some progress. The adoption of Climate-related Disclosures (CRD) for top businesses in Aotearoa New Zealand is a positive step. Outputs from COP26 in Glasgow 2021 have resulted in guidelines that will extend the current Task Force on Climate-related Financial Disclosures framework and result in a fundamental shift in what businesses in Aotearoa report to stakeholders. The question is when? In short, not soon enough.

Regulation jumps between a variety of international bodies, which then find their way to Aotearoa New Zealand public sector agencies and industry bodies. Progress is painfully slow.

We are advocating for a review of all relevant legislation and guidelines, including the Companies Act, Financial Reporting Act and policies from CAANZ and IRD for businesses that prepare special purpose reporting, to include:

- greater clarity on environmental responsibility
- the further development of reporting requirements and standards that:
    - reflect the reality of economic environmental impact
    - reflect the value of the circular economy.

In the interim, we recommend directors should not wait for this to happen. Businesses can voluntarily include an environmental pillar in internal policies for directors' responsibilities, risk management and performance expectations. There are a multitude of circular measurement and communication frameworks emerging. But due to the scale of data collection required, these tools are largely relevant to larger organisations. This leaves the 97% of Aotearoa New Zealand businesses who identify as SMEs searching for guidance.

A manufacturer we interviewed said it's incredibly hard to measure the impact of their circular decisions. This makes it difficult to validate them. They say building the tools to report on these initiatives is expensive and a barrier for small companies.

> **"Businesses are not held accountable for their environmental practices through legislation, so only those who feel a moral obligation are doing the right thing. This puts everyone on an unfair playing field and often means values-driven companies lose out financially. Their product is less appealing as it is often more expensive due to the extra cost of being environmentally responsible." [1]**

Sustainability reporting is another platform for businesses that want to communicate how their operations impact the environment. It's become mission critical for organisations now. Customers, investors and other market participants are increasingly referring to sustainability reports to evaluate the companies they want to buy from or invest in. Integrated reporting (<ir>) is one tool businesses can use to produce their sustainability reports. It demonstrates the financial and non-financial factors that determine a company's performance, and how sustainable value is created in the longer term. One company we spoke to says it's working on ways to implement more integrated reporting and highlights it's used widely in other countries, but less here in Aotearoa New Zealand.

So, how can businesses communicate circular practices to stakeholders right now?

Get the Board … on board

It all starts with the tone at the top. If governance and management teams lack the skills and resources to communicate the impact of the organisation's sustainable initiatives, the time to arm them with everything they need is now. This could include education and upskilling or even recruiting an experienced leader to oversee circular practices, and take responsibility for how they are measured and reported.

Climate-related financial disclosures (CrD)

Although privately owned businesses and for-purpose organisations are currently exempt from CrD, having a consistent method of reporting climate-related risk against emission reduction targets is a compelling value proposition for forward-thinking entities to jump on board. If a similar reporting framework is eventually established for SMEs, there's the added benefit of being prepared for this in advance – reporting can start immediately with no distraction or downtime.

Complimentary Climate Action Toolbox

More tools and frameworks to produce climate-related reports are starting to emerge, so there is some promise on the horizon for SMEs who want to tell their sustainability story. In addition to some circular metrics currently available (see p20), Sustainable Business Network, via a public-private partnership has released an online Climate Action Toolbox (see p35) – a free, easy-to-use online tool that demonstrates how to measure and reduce emissions. It's designed for smaller businesses, but it may also be helpful for larger businesses starting out.

Future Fit Business Benchmark

This is an open-source business tool that integrates societal requirements, management guidance and reporting. The benchmark can help set a strategy and demonstrate its impact on stakeholders, and it can be assured by third parties. It can be used by organisations large and small, both for profit and for purpose. What sets it apart is its ability to:

- help organisations set better business ambitions based on societal requirements
- improve day-to-day decisions, supplying management guidance
- allow companies to say more with less reporting.

Sustainability reporting

There is currently no standardised or mandated framework for sustainability reporting. But there are some methodologies like integrated Reporting <ir> and those developed by the Global Reporting Initiative (GRI). Integrated Reporting <ir> provides a set of voluntary, holistic reporting standards to help businesses apply efficient and productive capital allocation for financial stability and sustainable development. GRI is an independent, international organisation that enables organisations to take responsibility for their environmental impacts. The International Sustainability Standards Board (ISSB) was created in late 2021 and is quickly moving to bring together the various global standards for reporting.

Obtaining external assurance for sustainable reporting is also increasing in importance to ensure the transparency and accountability of the reporting entity. In the last decade as sustainability reporting has become more common, sadly so have instances of greenwashing. It remains a risk today and the consequence can be severe for companies exposed for doing it or even just exaggerating their claims. The FMA has greenwashing firmly in its sights as an area of interest and recently criticised 14 KiwiSaver and other managed funds for “blurring the line” on ethical investments. It can be detrimental to any brand, so it's worthwhile exploring this option to ensure reports are meaningful and accurate.

What gets regulated gets the right results

Greater transparency through improved reporting to stakeholders can be expedited with the right rules, regulations and mandates. Here are two quick wins for regulators to successfully support the circular economy.

1. Update all relevant legislation and guidelines, as above, to include greater clarity on environmental responsibility.

Ninety seven percent of all firms in Aotearoa New Zealand are SMEs. There’s a significant gap in circular measurement and communication tools for this section of the economy. Work needs to get underway to:

1. set up and enforce environmental reporting frameworks for medium and small businesses in addition to the larger organisations mandated to report on their environmental impact
2. provide the reporting tools and guidelines that go beyond profit as a measure of value and demonstrate the cost savings circular business practices can deliver
3. incentivise faster uptake of reporting by helping SMEs reduce the time, effort and compliance costs required.

An example of this communication is an Environmental Product Declaration (EPD), which was created as a consistent way to convey the more complex life cycle analyses that had been performed on the product – not unlike a nutritional food label for consumers to review and consider before purchase. Beyond the label on products, EPDs are backed up with a concise, readable document, valid for five years and are conducted to recognised global standards (ISO) by qualified advisors and third party verified. Businesses have seen the merit in having an EPD produced and third party verified under a recognised accredited scheme as part of the international EPD system. Reporting requirements could start with particular sectors where there is most to gain and build out from there.

2. Update the regulations for director and corporate accountability to support the circular economy.

The current framework for Director’s Fiduciary Duty in the Companies Act is vague and contains a loophole for Directors to disregard environmental considerations. While it provides Directors with an opportunity to include environment as a point of accountability, this should be mandated. Many of the people we spoke to during the course of our research want environmental considerations to be explicitly included within a director’s fiduciary duty.

> **“A review of the Companies Act is needed urgently.” [1]**

Where is the incentive for change?

Barrier: Current regulation, taxation and accounting practices don't provide the necessary 'carrots and sticks' to support the circular economy. But they are highly effective ways to incentivise businesses to participate in the circular economy. Incentives are fundamental to behaviour change. Monetary consequences drive action.

There are some incentives for businesses to participate in and contribute to a circular economy. However, they are few and far between, and some still have barriers to adoption.

Keep up with customer sentiment to remain competitive

The Kantar Better Futures report indicates that attitudes among customers are moving in the right direction. Concern for plastic pollution is the fourth greatest concern for Kiwis and "too much rubbish" is sixth. Donating or selling unwanted goods (rather than disposing of them), repair and second-hand purchasing are all increasingly reported.

While growing customer demand is a key driver for change, if circular goods demand too high a premium at the checkout, then other levers need to be pulled to even the playing field against linear products.

Take advantage of available grants and funds

Funding options are available to aspiring or existing circular businesses. However, our research revealed many businesses aren't aware of these opportunities, which include:

- The Waste Minimisation Fund
- The Plastics Innovation Fund
- The Green Investment Fund
- The Ākina/Impact Investment Fund
- Callaghan Innovation

For those aware of these funds, securing funding is not easy. Businesses we spoke to reported frustration with the current model. While there are numerous grants businesses can apply for, the acceptance criteria are not clear and they are fragmented across multiple government agencies. A cohesive approach to business grants is needed with a clear purpose and path to availability.

Some business could be eligible for R&D tax credits

While our tax system largely incentivises linear business models, the R&D tax credits scheme is an option to potentially reduce the costs of new circular initiatives.

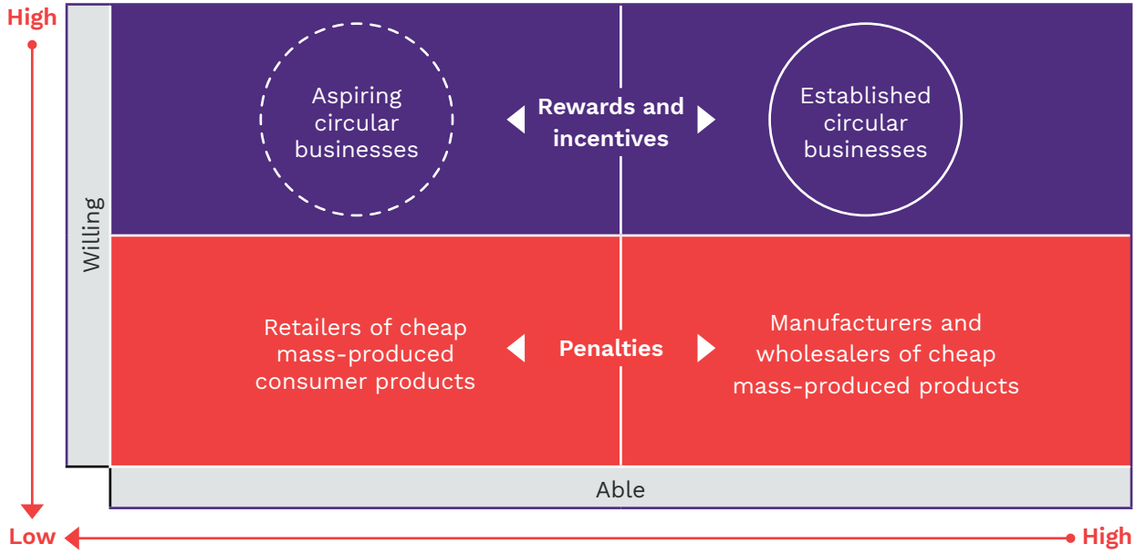
Eligible research and development projects aim to resolve scientific or technological uncertainties. This could include developing new circular products or processes.

Business continuity test

Many new businesses are not yet profitable and accumulate tax losses – particularly those trying to innovate. Tax losses can usually be carried forward and offset against future earnings to reduce tax costs in later years. Previously, a change in shareholding could limit the ability to carry forward and benefit from those tax losses. However, businesses can now bring in new equity investors without forfeiting this tax advantage, provided there is no major change in the company's business activities.

Where to from here: how can we reward the willing and penalise non-participants?

What practical incentives and penalties will make becoming circular a more compelling proposition? Taxation and accounting application can help. If the Government is serious about our country meeting its environmental obligations, we need to make the money walk the talk. This means sifting out the willing and the able, and clearing a path for success.



Tax and accounting levers for change

First, let's talk tax.

Implement the Tax Working Group's recommendations

In recent years, the Tax Working Group (TWG) was tasked by the Government to review the tax system. It considered how to use tax to influence the environmental and ecological impacts of the business community. Implementation of these recommendations is long overdue:

- Remove tax concessions that are harmful to natural capital
- Increase the coverage and rate of waste disposal levies
- Strengthen the Emissions Trading Scheme
- Advance the use of congestion charging
- Use revenue generated by environmental taxes to fund transition to more sustainable practices
- Consider how the longer-term use of environmental taxes could be used as a policy instrument to influence behaviour

Consider other areas of taxation

Additional tax incentives to tip the playing field and incentivise the circular economy could include:

- a scaled tax rate for circular businesses
- an additional tax deduction for companies that participate in lifecycle assessments for their business
- levy the use of virgin materials
- provide rebates to businesses that support environment protection and/or regeneration.

Revisit GST rules for product leases

Make it simpler for a PaaS business to understand and apply the GST rules. Currently, all agreements must be categorised for GST purposes as either “agreements to hire” or “hire purchase agreements”. Under an agreement to hire, GST is usually charged at 15% on the regular lease payments. This is paid to IRD when the lease payments become due or are received.

In contrast, under a hire purchase agreement, the total GST on the sale needs to be returned at the time the contract is first entered. An agreement to hire which includes an option to purchase the leased asset is treated in the same way as a hire purchase.

This means GST treatment of PaaS business models may depend on the underlying agreement. For example, whether the vendor still ‘owns’ the asset and provides the service or the customer leases the asset and then subscribes to a menu of services.

Rather than having to analyse a contract to determine the correct GST treatment, the rules could be modified or simplified where a business is providing a product as a service, to manage the GST flow and treat as an “agreement to hire”. An analysis of the underlying agreement should be carried out to determine the correct GST treatment to reward circularity.

GST case study: Again Again

Again Again has pivoted to be an open technology platform, enabling circular management of returnable containers. It empowers consumers to borrow reusable containers. Vendors are enabled to loan out containers with Again Again's platform assuring their investment from container non-return. Non-returned containers are either replaced directly, or their value is reimbursed.

When originally established, they provided on loan reusable coffee cups to participating cafes. This created uncertainty over GST claims for the deposit refund, since the cafes had not purchased the cups. To remedy this, Again Again spent considerable time and resources redefining the agreement to make sure that Again Again could claim the GST on the deposit refund.

Again Again also supports a legacy system, providing on-loan reusable coffee cups to participating cafes, using a deposit/refund model. As there is some precedent to suggest that merchants are unable to process GST on refunds if the original supply was not made by that merchant, Again Again spent considerable time and resources redefining the agreement as an agency model, to ensure that all parties trade in accordance with the GST Tax Act 1985.

Technical accounting note: As the vendor is an agent for GST purposes, Again Again is considered to be both the supplier and the refunder to the end user. As such, GST invoicing and consequences are processed in accordance with the GST Act.

It's time to add accountability to accounting practices

The rules that dictate what we value and how we value it need to be re-written and reflected in accounting conventions. Value needs to be ascribed to what we leave behind, what we save and what we re-use.

> **"The single greatest flaw of modern accounting is that the cost and losses of destroying the Earth are absent from the prices in the marketplace."**
>
> **- Paul Hawken, The Ecology of Commerce**

High chosen discount rates lower incentives to go circular

The environmental conscience of customers is rising. But circular products and processes are often more expensive to create. So, beyond the feel-good factor of doing the right thing for the environment, shrinking margins and stressed balance sheets leave businesses with little to no incentive for change.

Our current linear model gives businesses a higher chance of being approved for funding when they can demonstrate their net profit. Additionally, a director's fiduciary duty is to ensure the business is making a profit and providing shareholders with only a monetary return on investment. These incentives are created by our current accounting conventions like simple return on investment (ROI), discounted cashflow (DCF), cost-benefit analysis (CBA), and options analysis.

They all perpetuate our current take-make-waste approach to doing business and are heavily influenced by the chosen discount rate which is selected by investors or potential buyers of a business. It aims to determine the present value of future cashflows. A high discount rate means if a business wants to demonstrate the value and outcomes of its circular products and services, the future benefits of its offering is underestimated in favour of short-term returns, or the investment could be deemed too high a risk.

We do this at a national level as well. Our current social discount rate is 5% which is higher than other countries. If Treasury simply lowered this to a more comparable rate (say, of 3% or 3.5%), it would better reflect the future benefits of investments in sustainability including circular business models. For instance, the US recommends 2.5% for intergenerational projects and the UK recommends 3% for investment horizons of 31-75 years. This would immediately influence investment decisions and change mindsets for the better.

> **"Risk fits within business conversations much more easily than environmental concerns tend to." [1]**

Depreciation: A lack of appreciation for keeping products out of landfill

Depreciation is based on the idea that all assets have a useful life, at the end of which they have no value. Its basic structure assumes that capital assets are used up and disposed of.

Allowing full asset write-offs for items that are physically disposed of may encourage some to scrap things that could be re-used or repurposed. The need to retain the value of the depreciation can be a disincentive to find a buyer who might use the asset productively.

> **"CFOs don't care about assets once they're written off." [1]**

Diminishing value depreciation rates reinforces the mindset that the value of any business asset declines over time. From a tax perspective, the current rules dictate the value of an asset can't be deducted more than once. For example, if a business purchases a new asset for $100 which then has a depreciable value of $20 when the business no longer has a use for it, the asset can be sold for $20 to another company that can repurpose it. The purchaser can then depreciate the $20 over the life of the asset, with no tax impact on the seller. If the asset is sold for $40, the purchaser can depreciate the $40 over the life of the asset, and the seller will return $20 as taxable income.

Legislative change is needed to rectify these anomalies. A potential option is to provide an additional tax deduction for companies that buy and re-purpose assets as part of a circular business model. In our example the purchaser received a deduction for their $40 asset purchase over the life of the asset. They could receive a larger deduction, say of $60 (1.5 times the cost) over the life of the asset for tax purposes to reflect the circular value of the item, not just its financial worth.

Businesses should also get into the habit of maintaining a separate fixed asset register for tax and financial reporting purposes. They can use this information to recognise longer “estimated useful life” on assets for financial reporting. This helps to maintain a focus on extending the real return on the assets. For example, if the list of fixed use assets includes machinery that repurposes plastic to create a circular product or a fleet of electric vehicles, these might have a longer estimated useful life than the tax rules specify. By having a separate financial reporting fixed asset register to reflect this, a higher accounting profit can be achieved for an extended period.

Case Study: Mutu xChange

Large companies often have surplus assets and materials distributed across different buildings, storage rooms or warehouses. As a result, new resources are bought when they’re not needed. Old resources that could be re-used are sent to landfill. These ‘invisible assets’ get written off, costing organisations storage, landfill or replacements costs.

Mutu xChange is an online platform that makes it easier for large companies to track their assets and rehome surplus resources more effectively. Put simply, it connects people who have things with people who need them.

Unwanted items are listed on the platform for sale or donation. With either option, users can promote the item in-house or with the wider Mutu xChange network. They can also request something the same way.

Future fit financing

Barrier: The approach to financing is still largely stuck looking in the rear-view mirror. Banks are struggling to adapt their practices and see the future viability of circular businesses. They can't revolutionise their practices without other parts of the system moving with them.

Like every part of our finance system, banks are struggling to keep pace with the change towards circularity. We spoke to several that report working hard to develop more sustainable financing offers. But they are experiencing a number of roadblocks. Commonly used metrics and methods to assess the commercial viability of an idea are simplistic and narrow. A business's past performance largely defines its confidence in the future. This is not the case for a circular business with revenue likely to increase year on year – but the need to finance the business to support this growth is vital. This is where the conversation with banks becomes difficult, because the past for a circular business is not an accurate reflection of the future. To banks, new ideas and innovation present risk, whereas tried and tested linear businesses represent stability. This is a declining model. Over time the linear business will struggle to source product. Without a future-proof alternative business model they will cease to be viable. However, banks, like other parts of the finance system, lack enough people with the knowledge and the frameworks to pivot their thinking as fast as is needed.

> **"Banks and advisors have a duty to ensure their people are upskilled on circularity and environmental issues." [1]**

The answers lie in three key areas:

1. **Educate lending professionals in sustainable and circular business models, and risk assessment practices**
   At present, banks say they do not have enough trained staff to deal with the requests for financing. Many potential borrowers are being turned away. This is a significant barrier to circular economic growth. It means many innovative ideas are falling through the cracks.
2. **Supportive legislation and regulation to provide more tools for assessing current and future risk associated with a circular business model**
   The banks' ability to support circularity through preferential rates and innovative lending models relies heavily on supportive regulation. Government and the finance sector need to work together to provide this.
3. **Robust measurement and ongoing reporting methods**
   This will provide assurance around 'green' claims by businesses and their commitment to maintaining those standards throughout the life of the loan.

> **"RBNZ needs to unlock more capital to support the transition to circularity. If there is more money available and it's easier to get, this will be hugely transformational." [1]**

5 Where to next?

Where to next?

This report is the first step in an important journey for Aotearoa New Zealand's financial system. We're hoping it is the catalyst for rapid progress towards the circular economy imperative for our environment. It's a conversation starter. We'll be continuing this important discussion with business communities throughout the country.

Together, Sustainable Business Network and Grant Thornton New Zealand will be seeking to enact some of the ideas in this report ourselves. We will be advocating to regulators and lawmakers for the changes we call for from them. Above all, we will be working out loud, to maximise the impact from our networks and those who wish to join us.

More specifically our two organisations will be:

- exploring buying collectives, building communities of practice and other initiatives to allow like-minded smaller businesses to act at scale
- finding and sharing as many credible, free to use open-source tools as we can. These include the SBN Climate Action Toolbox and Emissions Calculator, Sustainable Supply Chain Toolkit and Future-Fit Business Benchmark (see p35)
- sharing case studies and emerging best practice
- advocating to Government to enact changes to the taxation system
- doing more work on circular metrics to illuminate how business can better connect planetary boundaries, their impact and a system of accounting
- pushing and publicising through our networks the existing public sector initiatives where public money is being used in the spirit of the mission-driven economy to do good such as the Waste Minimisation Funding, Sustainable Food and Fibre, Jobs for Nature and the Government Procurement Rules.

If you want to join us, get in touch.

James Griffin
General Manager, Projects & Advisory
The Sustainable Business Network
m +64 21 686 155
e james@sustainable.org.nz

Michael Worth
Partner, and Sustainability & Impact Lead
Grant Thornton New Zealand
m +64 21 623 944
e michael.worth@nz.gt.com

Denise Paterson
Partner, Tax
Grant Thornton New Zealand
m +64 27 4899 927
e denise.paterson@nz.gt.com

6 Research methodology

Research methodology

The information, insights and recommendations in this report are based on the in-house expertise of the Sustainable Business Network, Grant Thornton New Zealand and the individual experiences of senior team members from the organisations listed opposite. These interviewees are experts in circular economy methodologies and practices, and/or use circular business models in their organisations. We'd like to thank all interviewees for their valuable insights and contribution to this report. We have included quotes throughout this report from people we interviewed. These have been denoted with **[1]**.

Again Again	Macpac
Ākina Foundation	Maggie Marilyn
Auckland Council	Method Recycling
Auckland University of Technology	Ministry for the Environment
CAANZ	Mutu
Critical.	Ray Skinner
Fisher & Paykel Appliances	RUBY
Fletcher Building	Techbuyer
Fulton Hogan	thinkstep-anz
Kathmandu	Waste Management NZ
Kiwibank	Westpac
Law Society	Zero Waste Network
Lawyers for Climate Action	

7 Additional resources

Additional resources

There is a myriad of tools and resources to help you participate in and contribute to the circular revolution, and frameworks you can use to tell the world the positive impact your efforts are having on the planet. And of course, there are plenty of insights out there about the benefits of circular economies. We have listed some of the most effective and insightful resources below.

Tools to help you go circular

Complimentary resources

Circular Economy Directory

Climate Action Toolbox

Sustainable Procurement Toolkit

Future-Fit Business Benchmark

The Product Stewardship Resource Sheet

Start regenerating nature

Paid resources

XLabs LEARN

Metrics for measuring your circular business practices

Circulytics by the Ellen MacArthur Foundation

Circular Transformation Indicators

Material Circularity Indicator (MCI) by the Ellen MacArthur Foundation

MCI Tool – a materials circularity indicator (MCI) by thinkstep-anz

Circular Metrics for Business – a joint report prepared by Circle Economy and PACE

How to measure and communicate the impact of your circular business models

Climate-related Disclosures (CrD)

Integrated reporting **<ir> framework** **External Reporting Board** **ISSB**

Global Reporting Initiative

Insights about circular economies

Going Full Circle (2021) – a report by Sustainable Business Network.

A circular economy for Auckland – scoping the potential economic benefits (2018) – a report by the Sustainable Business Network.

The Circularity Gap Report especially (**2021**) and (2022) - the circular state of the world economy and how a circular economy can close the emissions gap.

Taxation for a Circular Economy: New Instruments, Reforms, and Architectural Changes in the Fiscal System (2021) – outlines a fiscal strategy for an inclusive circular economy.

The Ecology of Commerce: A Declaration of Sustainability (1993) – author, Paul Hawken sets out how business success and sustainable environmental practices are not mutually exclusive.

8 On the spot: What to ask your advisor about going circular

On the spot: What to ask your advisor about going circular

	How can your advisor help?	What to ask your advisor
Why should I care about the circular economy?	Advisors should understand what the circular economy is, why it is important for your business and how you can benefit. Advisors should be able to help you navigate the main concepts, and what they mean for your business and the environment.	What do you know about the circular economy? Do you have dedicated specialists on the subject? How have you helped businesses wanting to go circular?
Does my advisor care about the circular economy?	Professional service firms want to lead and do more. Surveys of accountants show the overwhelming majority want to understand their clients' ESG impacts as well as their own. They want to help improve risk management and do less damage to the environment If they aren't doing something, do you want them to advise you?	What is your firm doing to understand its ESG impact? Can you help me understand my business's ESG impact?
Risk management	At a minimum your advisor should be able to lead a discussion with you about the risks to your business if you don't consider circularity and ESG more generally. Some of these include: - Brand - Staff recruitment and retention - Social licence - Regulation - Financial penalties - Business continuity	What risks could exist in my business?

	How can your advisor help?	What to ask your advisor
Your business model	Your advisor should understand the five circular business models and how they and be applied to your organisation: **1. Product as a service** This is where the core function of the product is provided to the customer, but the manufacturer or distributor retains ownership of the product and its materials. **2. Circular materials** This includes minimising material use and sourcing renewable and safe or recycled materials to produce products. **3. Product Life Extension** This focuses on maximising the use life of a product. This is achieved by designing products to last as long as possible, using robust materials and making repairs easily accessible to users. **4. Product loops** This involves circulating products back through the business or allied organisations to retain or recapture the value of materials, through re-use, remanufacturing and/or recycling. **5. Use optimisation** Maximising the efficient use of a product via, for example, sharing platforms.	What are circular business models? Do you have any ideas about how PaaS could be applied to our offering? What do you know about how I might go about sourcing more circular materials? What are our options for providing life extension services? What would that mean in terms of operational support, working capital needs, warranties and guarantees? In terms of what we do, do you know of other organisations who could take and use our products and waste? Likewise, in your networks are there businesses with products and waste streams we could use? Could we provide our product to third parties to share as a model? Could we or should we white label it?
Financing	If you need investment, your advisor should be able to help access sustainable financing.	What sustainable financing options are there? How can we ensure that we meet the eligibility requirements? How do I get prepared for a funding pitch?

	How can your advisor help?	What to ask your advisor
Bank funding	Some banks are offering targeted loans to address specific sustainability challenges.	What do you know about the targeted loans available from the banks? Am I eligible? What can I do to access these funds?
Public funding	Some public money is available to help Kiwi organisations minimise waste, create more circular outcomes and grow the bioeconomy.	What do you know about the various funds offered by agencies like Ministry for the Environment and Ministry for Primary Industries? What can I do to access these funds?
Tax	Research and development expenditure may be used to access tax credits. Your advisor can help you assess your eligibility.	Are our research and development expenses eligible to meet the requirements for tax credits? How can we ensure that future research and development spending would meet these requirements?
Business continuity test	For businesses that are yet to be profitable, ask your advisor how to manage your accumulated tax losses.	We aren't yet profitable; how can we best manage and use our tax losses going forward?
Business systems	Ask your advisor which accounting, and stock management systems and functions are available to support stock and customer relationships.	How can I better manage my stock and customer relationships? What other accounting and stock management systems or functions are available?

	How can your advisor help?	What to ask your advisor
GST	There are numerous types of lease agreement arrangements, ask your advisor how to best manage current and future arrangements.	We are entering a lease agreement, which one would be most appropriate? Operating lease, finance lease, or hire purchase? And, how can we better manage our current lease agreements?
Metrics	It's important to understand how circular or linear your business is now, and how far you might have to go.	How do I understand my current level of circularity? What is a life cycle analysis? Which circularity metrics could be useful?
Reporting / stakeholder communication	Your advisor should be able to help you develop or improve your reporting and support you throughout the assurance process.	What are the reporting standards? Do I need them? Could I use them? Do I need to get assurance for my reports? What is limited assurance?

9 About the authors

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Sustainable Business Network

Established in 2002, SBN is Aotearoa New Zealand's largest, longest-standing sustainable business organisation.

We're a network that enables system change in the areas of climate, waste and nature.

We're a social enterprise, a community and a movement. Our role is to transform leading ideas into action in Aotearoa.

Our network consists of hundreds of progressive organisations and people that collectively invest in and act on system change.

Grant Thornton New Zealand

We are a proud member of Sustainable Business Network.

Our professionals in audit, tax and advisory services constantly pursue new ideas and embrace a culture of curiosity, agility and innovation.

While colleagues in each service line bring specialised knowledge, experience and skills to their client engagements, our teams deliver the greatest value by collaborating across services to create innovative, tailored solutions to meet clients' complex challenges.

Our industry focus areas and our international member firms enable us to meet client needs, no matter how specialised – no matter the geography.

Sustainable Business Network

sustainable.org.nz

Address

Darby Building
Office 3, Level 2
8-18 Darby Street
Auckland 1010

Postal address

PO Box 106983
Auckland 1143

Contact us

t +64 9 826 0394

Join the Network

Ayla Irving-Lamb
m 021 0255 8343
e investor@sustainable.org.nz

Follow us

- LinkedIn
- Facebook
- Instagram
- Twitter

Grant Thornton

grantthornton.co.nz

Auckland

L4, Grant Thornton House
152 Fanshawe Street
Auckland 1140
t +64 9 308 2570
e enquiries@nz.gt.com

Wellington

L15, Grant Thornton House
215 Lambton Quay
Wellington 6143
t +64 4 474 8500
e enquiries@nz.gt.com

Christchurch

L3, Grant Thornton House
134 Oxford Terrace
Christchurch 8140
t +64 3 379 9580
e enquiries@nz.gt.com

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