

Submission from Zero Waste Scotland – Thursday 27 August 2026

1. Ahead of Zero Waste Scotland's Climate Action Committee attendance on 3rd of September 2026 we would like to provide Committee Members with some background information that will hopefully prove useful.
2. Please note following key documents attached as addendums to this briefing
 - [Corporate Plan 24-30](#)
 - Delivery Plan 26-27 (provided separately)

Who We Are & Context

3. **The circular economy is essential to delivering Scotland's environmental and economic objectives.** In an increasingly uncertain global context, circularity not only supports material security but is also fundamental to Scotland's long-term competitiveness. Growing Scotland's circular economy will be critical to strengthening economic resilience, boosting prosperity, protecting our environment, and creating more sustainable places and communities.
4. The circular economy is now widely seen as a way to boost innovation, improve productivity, reduce waste and make better use of resources. An ambitious programme of activity is in-flight, underpinned by the Circular Economy Strategy and its vision to make significant progress by 2045 in creating "*a thriving economy that meets societal needs and is based on circular economy principles*".
5. Zero Waste Scotland are **the primary vehicle for delivery of Scotland's Circular Economy Strategy**. By working closely with government, businesses, local authorities, communities and universities, we help develop solutions, bring organisations together and support coordinated change and delivery on the ground. We also help showcase Scotland's circular economy leadership across the UK, Europe and across the world, we attract investment and accelerate progress towards national goals.
6. **The circular economy is a bridge between environment and the economy**, benefitting both. Zero Waste Scotland provides the ability to convert circular economy policy into real world outcomes, investment and jobs, creating significant economic, environmental and strategic value for Scotland.

Benefits of a circular economy: the facts

- **GDP:** The Circular Economy contributed £4 Billion to Scottish GDP in 2021. As a share of GDP, circular sectors' GVA made up 3.9% of Scottish GDP

(where total GDP also includes offshore oil and gas extraction in Scottish waters) Circularity could boost the UK economy by £25 billion by 2035¹

- **Jobs:** The Circular Economy employed 56,000 FTE workers in Scotland in 2021 (latest data available) making up approximately 2.6% of total employment in Scotland². Around 470,000 new jobs linked to circular practices could be created in UK by 2035³
- **High-value, high productivity:** Jobs in circular sectors provide average earnings approximately 5% higher than the economy-wide average earnings. Circular economy jobs are also more productive, adding 16% more GVA per hour than economy-wide average earnings. Circular business models could see a 0.2% - 0.4% boost in labour productivity⁴
- **Resilience:** Scotland relies on imports for nearly half (43%) of all materials and two-thirds (66%) of the critical raw materials it needs - highlighting the economy's exposure to global supply chain disruption. The opportunity is to replace this reliance on imports with domestically generated circular solutions. This can help at a time of increased tariffs, protectionism and global instability of trade routes⁵ and support Scottish jobs, supply chain resilience and materials security, productivity and growth.
- **An opportunity for business:** Developing the circular economy delivers benefits for business including cost savings, greater profitability, job creation, greater supply chain resilience as well as driving innovation.⁶ Circular approaches can also reduce material inputs, resulting in cost savings for manufacturers and suppliers which can ultimately be passed on to consumers.⁷
- **Attracting Investment:** Investment in circular business models surged by 87% in the latter half of the period (2021–2023) compared to the earlier years (2018–2020), showing growing investor appetite and an increasing business case for the circular economy.⁸
- **Social benefits:** A circular economy provides opportunities to strengthen our communities by providing local and sustainable employment opportunities and access to lower cost goods. A more circular economy contributes strongly to community wealth building, which seeks to enable local communities to have a greater stake in, access to, and benefit from the wealth our economy generates.

¹ [Kickstarting The Circular Economy](#), All-Party Parliamentary Group (APPG) for the Environment (2025)

² [Circular Jobs Tracker Report](#), Zero Waste Scotland (2026)

³ [Levelling Up Through Circular Economy Jobs](#), Green Alliance, (2021)

⁴ [Building a More Productive and Resilient UK Through Circularity](#), PWC, (2025)

⁵ [Building a circular supply chain: Achieving resilient operations with the circular economy](#), Ellen MacArthur Foundation (2023)

⁶ [Achieving 'growth within'](#), SYSTEMIQ/Ellen MacArthur Foundation (2017)

⁷ [Why a Circular Economy is Good for Business](#), Green Alliance, (2024)

⁸ [The Circularity Gap Report Finance](#), Circle Economy/KPMG (2025)

- **Good for the Environment:** 80% of Scotland's carbon footprint comes from all the things we make, buy, use, and ultimately throw away. Reducing our demand for raw materials by maximising the life of products and materials makes our economy more sustainable for the environment.
- **Awareness-** Only 1 in 5 people in Scotland are fully aware of the negative environmental impacts of our consumption of new products.

What we do

7. Through sharing knowledge, nurturing relationships, and bold collaboration, Zero Waste Scotland is in a truly unique position to influence vital change by acting to:
 - **Help people care:** advocating for change, informing why we must reduce overconsumption of natural resources and demonstrating how we can do it.
 - **Make circularity easier:** identifying and implementing the conditions required to enable circular economies to flourish across Scotland.
 - **Do more where it matters most:** informing and supporting accelerated change in key sectors that require high levels of raw materials.
 - **Improve infrastructure:** evidencing and demonstrating the infrastructure to keep materials in constant use.
8. Zero Waste Scotland is playing a pivotal role in making landmark strides towards a circular economy, including:
 - **Evidencing and supporting development of Government policy** such as the [Circular Economy \(Scotland\) Act](#) and associated [Scotland's Circular Economy and Waste Route Map to 2030](#) and [Circular Economy Strategy](#), as well as National Planning Framework 4 and the Net Zero Public Body Standard.
 - **Leading on the development of Roadmaps to Circularity** for 4 key sectors in Scotland, [Energy Infrastructure](#), [Built Environment](#), Bio-Economy (2027), and Textiles (2027). These Roadmaps are a product of extensive co-design with industry after assessing the key barriers and opportunities, critical path for success and ensuring a clear, shared vision. They will help deliver on the Scottish Government's cross-policy ambitions for the circular economy, with specific interventions and actions to drive change led and delivered by ambitious key industry players including Zero Waste Scotland.
 - **Developing enhanced evidence for the social, economic and environmental benefits of circularity.**
 - The [Circular Jobs Tracker](#) for Scotland provides a clear and data-driven analysis of the jobs market and within inherently circular sectors in Scotland. It provides a valuable and detailed insight to not only where circular activity is already happening and the economic value it creates, but also to the circular opportunities available –

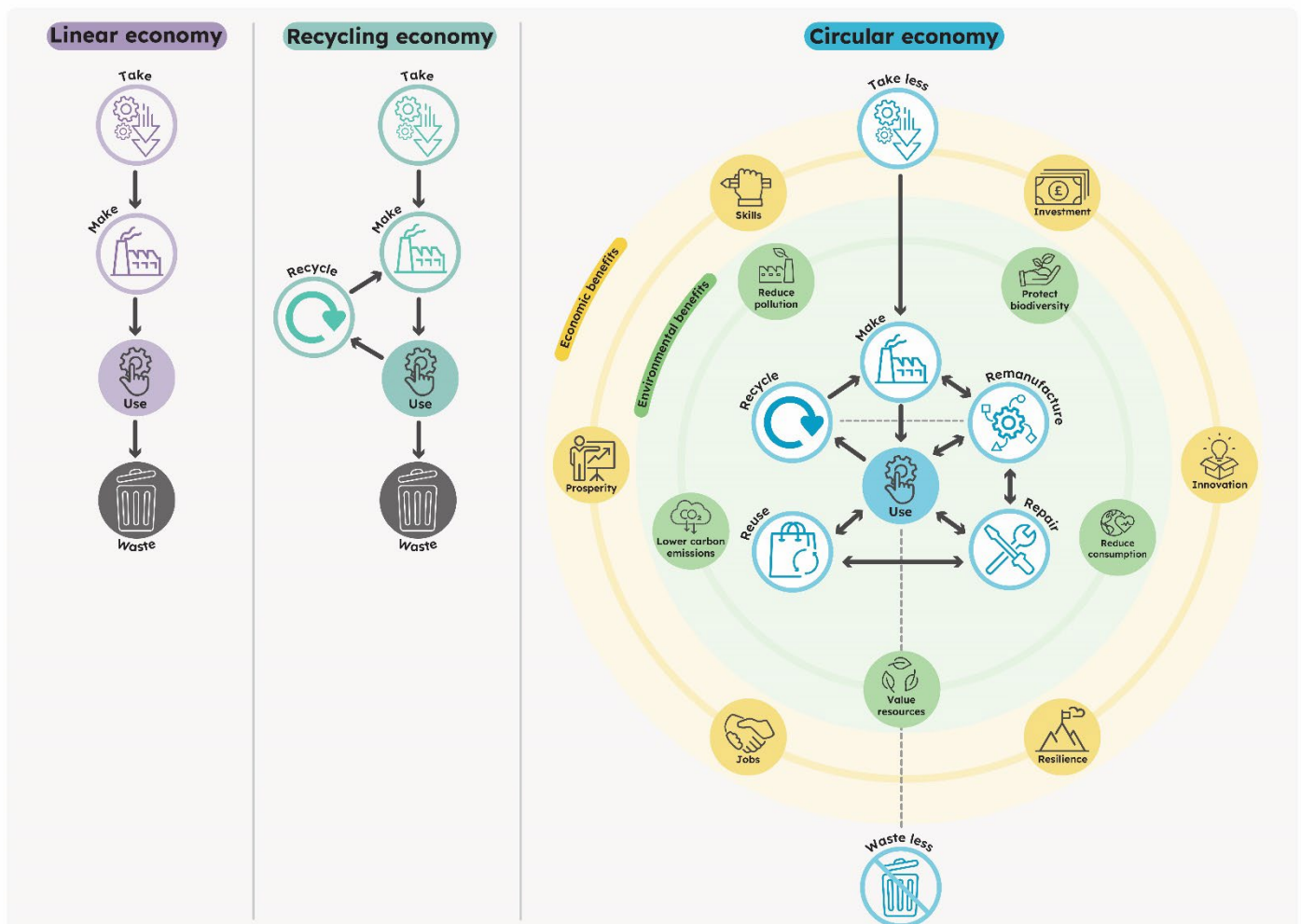
strengthening Scotland's case to transition towards a circular economy.

- The [Scottish Material Flow Accounts \(MFA\)](#) provides the most comprehensive, sector-level, assessment of how materials move through Scotland's economy, including extraction and imports, production and consumption, and exports and waste. It reinforces the case for Scotland's transition to a circular economy, in which we reduce our reliance on imported materials by keeping resources in use for longer.
- **The Circular Economy Monitoring and Indicator Framework (CEMIF)** is Scotland's national tool for tracking how materials are used, reused, and recycled across the economy. Developed by the Scottish Government and Zero Waste Scotland, it measures the environmental, economic, and social impacts of resource consumption. The framework directly links data to national sustainability goals, serving as the foundation for setting mandatory circular economy targets by 2027.
- [SWEFT Scottish Waste Environmental Footprint Tool](#). Developed as an evolution of Scotland's earlier Carbon Metric methodology. While the Carbon Metric focused mainly on carbon impacts, SWEFT is an analytical tool used to measure the environmental impacts of household waste in Scotland across multiple indicators, not just carbon emissions.
- **Supporting businesses and innovation to make Scotland more circular, sustainable, resilient and prosperous**
 - The development of a free [Business Information Hub](#) to help companies adopt circular practices. The platform is designed to support businesses at any stage of their journey by offering practical tools, clear guidance, and real-world examples.
 - **Delivering investment and support** to over 300+ circular businesses through the pioneering Circular Economy Investment Fund (CEIF), our Circular Economy Accelerator Grant and Strategic Opportunities Unit, and our tailored business support proposition providing capacity and capability to Scottish businesses.
 - **Developing and supporting investment cases and infrastructure opportunities for Scotland**, including work on materials reuse hubs, turbine blade recycling, the Scottish Ocean Cluster, and Grangemouth.
- **Forging pro-active place, sector and innovation partnerships** with various Chambers of Commerce, local and national governments, and regional agencies to increase reach, identify local opportunities and build capacity for change.

- **[CirculariTAY](#)**- a regional initiative that accelerates the transition to a circular economy across Dundee and the wider Tay Cities region. It is a collaborative partnership led by the Dundee and Angus Chamber of Commerce alongside Zero Waste Scotland and the Perthshire Chamber of Commerce.
- **Flagship Circular City**- Working across Glasgow to support accelerating the city's circular economy ambitions, adopting a place-based approach to identifying how the strengths of a local economy can be leveraged to support increased circularity and support the priorities of local stakeholders. Work is starting to map those opportunities and work with stakeholders to develop the right interventions and governance approach for the city. In parallel, we are working with Glasgow Chambers of Commerce to deliver a Circular Economy Leadership Programme and a series of stakeholder events plus funding an intern in Glasgow City Council, to support delivery of the Council's circular economy route map and associated action plan.
- **Regional Support via embedding in Enterprise Agencies**- We are funding posts to help focus circularity within enterprise agencies to help make sure decisions and policies are properly informed in regard to adopting circular economy practices. We currently fund one such post with South of Scotland Enterprise. Discussions about embedding in other enterprise agencies is ongoing with progress made and announcements to be made soon.
- **Local Authority Strategic Reuse**- We will be working across a Local Authority (to be announced) to realise the economic, environmental and social benefits from embedding a "reuse first" approach initially focused on electrical and electronic equipment. This will involve working with various departments to map the lifecycle of assets from procurement, through use to disposal, identifying and implementing interventions that will support maximising reuse within the organisation and beyond. This will help develop a replicable model that can be supported across the public sector estate in Scotland.

What is a Circular Economy

9. Our current economic model is largely linear: we take resources, make products, use them, and then dispose of them. This approach creates unnecessary waste, increases costs for businesses and consumers, and leaves the economy vulnerable to resource shortages and supply-chain disruption. In contrast, a circular economy is designed to keep products and materials in use for as long as possible, reducing waste while strengthening economic resilience, driving innovation, and creating new market opportunities.
10. By retaining the value of materials and reducing reliance on virgin resources, a circular economy can not only be part of the solution to our global climate emergency but it also helps lower costs, improve supply chain resilience, create jobs and drive sustainable economic growth. It is an all-encompassing approach to life and business which, in simple terms, can be explained as 'make, use, remake' rather than 'make, use, dispose'.



How does a circular economy work?

11. Achieving a circular economy starts with designing products and services with their entire lifecycle in mind. Products are created to be durable, repairable, reusable and adaptable, extending their useful life and retaining the value embedded in materials and components. When a product reaches the end of one phase of use, its materials can be repaired, refurbished, remanufactured or repurposed into new high-value products.
12. This approach not only reduces waste and carbon emissions but also creates opportunities for skilled employment across repair, refurbishment, remanufacturing, recycling and resource management sectors. It encourages investment in the infrastructure needed to recover, process and re-use materials, helping to develop local supply chains and retain economic value within Scotland.
13. By keeping resources circulating for longer, Scotland can strengthen supply-chain resilience, reduce reliance on imported raw materials, stimulate innovation and business growth, and build a more resilient, productive and competitive economy for the future.

Key Approaches to Advancing a Circular Economy

Policy Alignment

14. Stronger integration of circular economy principles across different policy areas—both within government and among stakeholders—can unlock multiple benefits, including:
 - Broader support and shared ownership of the transition
 - Improved coherence across policies
 - Identification of opportunities for co-benefits
 - Greater public understanding and engagement with circular economy concepts

Systems Thinking

15. Adopting a systems thinking approach is vital to achieving the scale of transformation needed in Scotland. This means understanding the interconnected factors that shape the economic and environmental ecosystem—both within specific sectors and across the wider economy.

Behavioural Change

16. A structured, evidence-led approach to behaviour change is essential. This should be underpinned by segmentation data, pilot initiatives, and collaboration across sectors. Embedding behavioural insights into policies—from infrastructure

and skills to product design and procurement—can help drive long-term, systemic change.

Place-Based Approaches

17. Applying a place-based lens to circular economy strategies can make them more relevant and impactful at the community level. This requires a commitment to understanding and responding to regional strengths, needs, and challenges.

Circular Economy Data

18. Enhancing data on circularity presents a strategic opportunity to redefine how we measure economic success. Robust, transparent, and accessible data is essential to enable and scale the circular economy. Moving beyond traditional economic metrics to also include environmental and social indicators can support new innovations and improve public awareness.

Tools for Understanding Impact

19. Using tools to assess environmental, as well as social and economic, impacts of design, production and purchasing decisions can identify opportunities to reduce harm and increase resource efficiency across systems and value chains. Tools, such as Lifecycle assessments, can improve the understanding of and increase uptake of choices that deliver better environmental outcomes across the full lifecycle of materials and products.

Policy Levers to Enable a Circular Economy

Procurement

20. Public procurement practices can face cultural and governance challenges when seeking to support circular economy objectives, including skills development needs, data limitations, and constraints within existing financial and decision-making frameworks. Evolving procurement systems presents an important opportunity to further embed circular economy principles, enabling the public sector to lead by example. This transition can help normalise circular approaches across supply chains, which in turn will help achieve policy priorities of government by stimulating innovation, and delivering broader economic growth, social and environmental benefits.

Skills and Education

21. Integrating circular economy principles across relevant policy areas, introducing incentives or requirements for circular economy training, and clarifying the skills landscape are all essential steps. These actions would help upskill targeted professions and sectors, while also building public awareness and understanding of circular practices.

Finance

22. Targeted financial support—such as grants, cashback schemes, and funding for start-ups, feasibility studies, and local production—can catalyse circular economy initiatives. Demonstrating the viability of these models can also attract private investment, making circular practices more financially appealing and scalable.

Infrastructure

23. There is currently no holistic understanding of the infrastructure—both physical and digital—needed to support a circular economy. Developing a comprehensive view of these requirements, identifying existing barriers, and outlining strategies to overcome them is critical to enabling circular systems at scale.

Market Instruments and Incentives

24. The current economic system often favours linear models. To shift this dynamic, a suite of incentives and disincentives—such as fiscal measures, taxation, and regulatory tools—should be explored to promote circular practices (as an example- charge on single use carrier bags). While some interventions can be implemented at the Scottish level, others will require collaboration with the UK Government.

Scottish Businesses Enacting Circular Practices

Indinature (Jedburgh)

25. Through our Circular Economy Investment Fund we were one of the early supporters of Indinature, who have developed low carbon insulation products for the built environment sector using renewable hemp fibre. The company has successfully grown from innovative concept into a commercially viable manufacturing operation, providing rural employment opportunities, supporting local supply chains and clearly demonstrating the potential of circular solutions in a construction setting. This positive progress has culminated in a visit by His Majesty King Charles III in July 2026 to see how UK-grown industrial hemp is processed into natural fibre insulation.

Kenoteq (East Lothian/Edinburgh)

26. Another example of a business we supported during early innovation is Kenoteq, who have developed the K-BRIQ®, a building brick made from over 90% recycled construction and demolition waste that would otherwise be discarded. We provided early stage funding that has seen the company grow from pilot production to commercial manufacturing, offering a low-carbon alternative to traditional clay bricks, with less than 5% of the embodied carbon of conventional products. Kenoteq has gone from strength to strength, creating jobs and attracting market confidence in a new space.

Celtic Renewables (Grangemouth)

27. Developed a pioneering process that converts low-value by products (such as whisky residues and rejected potatoes) into green chemicals. Celtic Renewables patented technology directly displaces chemicals made from gas and oil in the manufacturing process and lower the carbon footprint of everyday products like skin creams, nail varnish, household cleaning products, paints, medicines and vitamins.

MiAlgae: (Edinburgh and Grangemouth)

28. They use whisky by-product to produce marine Omega 3s. To meet the growing demands of rising human and pet populations, alternative sources of Omega 3s are urgently required to enable the responsible growth of our food and feed systems.
29. They go straight to the source and produce microalgae, rich in marine Omega 3s, grown using the by-products from whisky distillation. Another advantage of the MiAlgae approach is that there is no shortage of feedstock. For every litre of whisky produced in Scotland, around 15 litres of co-product are created Their innovative technology offers a plant-based, low carbon, sustainable source of marine Omega 3s, reducing dependence on dwindling wild fish stocks.
30. Zero Waste Scotland first worked with MiAlgae in 2017, providing early-stage Circular Economy Business Support (CEBS), including advice and guidance to help develop the business model and circular economy proposition. In 2021, MiAlgae received grant support through the Circular Economy Investment Fund (CEIF). This funding, alongside private-sector investment, helped the company scale up its demonstrator facility in Balfron.

Reblade (Glasgow & Dumfries)

31. Zero Waste Scotland supported ReBlade through Circular Economy Business Support and the Resource Efficient Circular Economy Accelerator Programme, helping the company develop pioneering approaches to the reuse and repurposing of end-of-life wind turbine blades. This support enabled ReBlade to establish the UK's first specialist non-landfill wind turbine blade decommissioning service, creating new circular economy opportunities within Scotland's renewable energy sector while diverting valuable materials from disposal.

ACS Clothing: (Motherwell)

32. They aspire to transform the fashion industry from the traditional linear take-make-dispose model, towards a circular fashion model that extends the life of existing textiles and diverts clothing from landfill. To achieve this, they enable brands and retailers to introduce a rental or resale model alongside their existing ecommerce model. They believe the shift towards circularity needn't be complicated. Therefore they have designed a flexible step-by-step onboarding process that enables fashion brands to join the circular economy.

Rhinowash: (Wishaw)

33. Rhinowash provide a service across the UK in the sale, hire and maintenance of high-performance pressure washers. In over 50 years of operation, the company has developed a range of installed, static pressure washers. Their goal was always to provide industrial products that are reliable, robust and fit for purpose, but which can also be easily repaired and put back into use

ReSet Scenery: (Glasgow)

34. Established to address the linear “take–make–waste” use of scenery, they have spent the past eight years developing practical, deployable circular solutions for the creative industries. Their mission is to embed circular practice into scenic production through practical, measurable action. Through clearances, material recovery, impact reporting and research into alternative construction methods and materials, they extend the life of scenic resources across stage, screen and events.

DF Concerts & Events: (Glasgow)

35. Founded in 1992, DF Concerts is Scotland’s largest live music and event promoter. The company runs outdoor music events across the country, such as TRNSMT and Summer Sessions, as well as the world-famous Glasgow venue, King Tut’s Wah Wah Hut. CEO Geoff Ellis has been leading the team for more than 30 years and, for him, circularity and sustainability aren’t just nice things to be seen supporting – they’re business critical. This approach is actually better for business because the reduction in waste brings a reduction in costs. It sounds very simple, but the more goods and services that they are able to maintain and keep in circulation for as long as possible, season to season, the less money they are wasting each year.

J+S Subsea (Dyce)

36. Dyce-based engineering firm J+S Subsea may be 60 years old but its Legacy Locker initiative is trailblazing the refurbishment and resale of equipment to oil and gas operators. They mitigate premature decommissioning costs through comprehensive obsolescence management and legacy support. They are committed to the circular economy and minimising the use of resource inputs and the creation of waste, pollution, and carbon emissions. Their aim is to provide continued support for legacy systems in order to keep products, equipment and infrastructure in use for longer, thus improving the productivity of these resources.

Tiny Fish (Oban) and Ace Aquatec (Dundee)

37. The mission of Tiny Fish is to make every fish count in the aquaculture industry. They want to reduce food waste across freshwater production by harvesting and finding premium markets for the small salmon which are usually removed from the population and disposed of to allow the best salmon to be raised at sea. The collaboration between Ace Aquatec and Tiny Fish helps reduce the carbon

footprint by converting the small fish into a natural, healthy and safe ingredient for pet food products and fish oils, instead of ending up in landfill, incineration, compost or bioenergy. Truly a sustainable product.

Zero Waste Scotland Staff Attending Committee Meeting



- 38. Ciaran McGuigan was appointed as the new Chief Executive of Zero Waste Scotland in early 2026.
- 39. Ciaran was previously Finance and Corporate Services Director and has played a significant role in Zero Waste Scotland's development over the last four years including overseeing our transition to public body, being a key architect of our Corporate Plan to 2030, and through his strategic leadership as part of our Executive Leadership Team.
- 40. In addition, he has decades of private sector business, finance, governance, and risk management experience.
- 41. Ciaran's commitment to our organisational values and mission to rewire the economy will be instrumental as we move into this next, exciting phase.