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Revision History

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16 Dec 2022	Bernadette Casey & Peter Thompson	Second Draft	1.2
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Purpose of this Report

The Formary / UsedFULLY are undertaking a Ministry for the Environment Waste Minimisation Fund funded "Textile Product Stewardship Project" (TPSP), as defined by Deed Number 23433. The second stage (Year 2) of the project is currently underway, and this report is one of the deliverables.

Acknowledgements

We are grateful to the Ministry for the Environment's Te Pūtea Whakamauru Para – Waste Minimisation Fund and the Textile Reuse Programme Foundation Partners, Alsco NZ, Barkers Clothing, Deane Apparel and Wellington City Council for their support.

Disclaimer

Financial support for this project was received from the Waste Minimisation Fund, which is administered by the Ministry for the Environment.



The Ministry for the Environment does not necessarily endorse or support the content of this publication in any way.

Executive Summary

As the global need to decarbonise becomes increasingly urgent, the understanding of the impacts of what the world produces and consumes has matured. The climate agenda and the circular economy have become intrinsically intertwined.

Product Stewardship is a key enabler of the circular economy, looping unwanted resources back into the value chain. Reducing waste and emissions while potentially displacing the need to draw on new resources. But infrastructure gaps are hindering progress. What little remains of Aotearoa New Zealand's textile manufacturing capability is in the wool sector, however the dominant textile types in the New Zealand market are now cotton, polycotton and polyester.

The purpose of a Textile Product Stewardship Scheme is to provide a means to manage and reduce the long term environmental, economic and social impacts of end-of-life textiles, whilst minimising the cost to key stakeholders. The opportunity for increased regional resilience, industrial & commercial autonomy, economic and social opportunity and a revitalised industry could be catalysed through the implementation of a textile product stewardship scheme.

Auckland Council have recently prioritised textiles, while central government is yet to give textiles the same focus, doing so would align Aotearoa New Zealand with Australia and Europe who, due to textiles outsized impacts, have already made textiles a priority product. Directing policy attention and funding to improve the management of these highly resource intensive products.

Government has a significant dual role to play from both a policy perspective and also as a significant consumer of textile products and uniforms. All Product Stewardship schemes need to enable and support a low-carbon, circular economy. New processes and infrastructures should be aligned with the Zero Carbon Act, this requires more central government oversight and involvement.

The Textile Product Stewardship Project has been tasked with delivering the 'Recommendation of an appropriate vehicle for Textile Product Stewardship to set up and administer an accredited voluntary Product Stewardship Scheme for textiles in New Zealand'. To garner industry opinion a survey was distributed across the textile industry value chain and across the various segments of the market – fashion brands, commercial textile suppliers, researchers, educators, charities and end-of-life organisations. Gathering industry opinion on the preferred legal structure for a Product Stewardship organisation and the functions it should support.

This report provides an insight into industry opinion and recommendations of the path forward. It is also an invitation to government and all industry players to work closely together co-creating a thriving and resilient low carbon industry. What is crystal clear is a circular systems solution for textiles in Aotearoa New Zealand is urgently needed.

Background

Product Stewardship for Textiles – Global Context

Global textile production almost doubled between 2000 and 2015 and shows no sign of slowing with consumption of clothing and footwear expected to increase by 63% by 2030, from 62 million tonnes to 102 million tonnes in 2030.¹ Some anticipate volumes continuing to increase until global population rates plateau around 2064.² In the European Union, the consumption of textiles (the vast majority of which are manufactured outside of Europe) "now accounts on average for the fourth highest negative impact on the environment and on climate change and third highest for water and land use from a global life cycle perspective".³

With the entry of Ultra-Fast Fashion into the market, the quality of some clothing is further diminishing, increasing the churn of these garments and making rewear and resale of these items less viable. According to McKinsey & Co's "Fashion on Climate" report, the global fashion industry produced around 2.1 billion tonnes of GHG emissions in 2018, equalling 4% of the global emissions total, at its current trajectory, "if the industry continues to embrace current decarbonisation initiatives at the current pace, emissions will be capped at around 2.1 billion tonnes a year by 2030, around the same as they are now. This would leave levels at nearly double the maximum required to stay on the 1.5-degree pathway."⁴

Product Stewardship (PS) and Extended Producer Responsibility (EPR) are critical policy interventions that can support a reduction in waste and emissions as well as the overdraw of new resources by incentivising the coordinated, systemic transition to circularity of resources. It involves creating schemes that help shift the costs of managing waste from ratepayers and taxpayers back to those who benefit from the product. This ensures the costs of waste get considered when design, production, distribution and use decisions are made. In this way, product stewardship schemes can contribute to both a reduction in waste and to better recovery of materials from the waste stream. Those who benefit from the product, fund the scheme and activities that may have otherwise been funded by society in general through rates or taxes.

In 2021 the Australian government declared textiles a priority product⁵ and is currently investigating Textile Product Stewardship and its application within the Australian market. The Australian Fashion Council's scan of global stewardship efforts show a range of mechanisms and rates e.g. Sweden has calculated that the introduction of EPR will lead to a t-shirt becoming SEK 0.23 (NZD \$0.04) more expensive for consumers. In France current rates range from 0.0015 – 0.062 Euros per piece (NZD \$0.024 – \$0.10) depending on the type of product, with a flat rate per annum or rate per item basis.⁶

¹ EU Strategy for Sustainable and Circular Textiles (2022)

² Science Daily (2020)

³ EU Strategy for Sustainable and Circular Textiles (2022)

⁴ Fashion on Climate (2020)

⁵ Australian Government Department of Climate Change, Energy, the Environment and Water (2021)

⁶ Australian Fashion Council, Global Scan Report (2022)

Product Stewardship for Textiles - Local Context

UsedFULLY and the Textile Reuse Programme have been leading the research and design of a textile circular economy in Aotearoa New Zealand. Over the last few years the work of a core group of industry stakeholders through the Textile Reuse Programme⁷ has resulted in a clearer understanding of the elements required to support a Product Stewardship scheme for textiles. The scale of textile waste is considerable, and its impacts vast, requiring industrial-scale solutions including coordinated collection, aggregation and sorting through to viable and pragmatic alternatives to landfill.

New Zealand has the highest per-capita waste volumes in the OECD, volume of textile waste to landfill in New Zealand is estimated at 220,000 tonnes per annum.⁸ Deregulation and the free market policy approach of the 1980's and 1990's decimated New Zealand's manufacturing base hitting the textile industry particularly hard⁹, having flow-on effects on our ability to remanufacture locally. The ability to lower emissions and extract value from waste is dependent on the processes and infrastructure available. Infrastructure NZ estimates that there is a recycling infrastructure gap in New Zealand of between \$2.1 - 2.6 billion which is needed to divert waste from landfill, along with an additional \$0.9 billion needed in operational funding over the next ten years.¹⁰ In addition, the current lack of onshore infrastructure for end-of-life textile processing raises the potential risk of this waste being sent offshore, preventing the development of a local industry that can add economic value in the emerging clean-tech sector. New Zealand is currently twenty second on the global Clean Group Innovation Index (CGII), government's aim is to move New Zealand into the top ten on the CGII within two years.¹¹

Textiles at a resource level are broadly cellulosic (plant-based fibres) proteins (animal based fibres) or a petro-chemical mix (synthetic fibres). From a cellulosic perspective there is intersection with the timber industry, from a synthetics perspective there is considerable intersection with the plastics industry. Transitioning to a circular economy requires a move away from siloed industry approaches, presenting an opportunity to investigate shared infrastructure and public private partnerships.

New Zealand is one of the few countries to have a net zero emissions by 2050 goal enshrined in law, in 2019 the Climate Change Response (Zero Carbon) Amendment Act was passed. But the understanding of the impacts of textiles and the role they play in emissions reduction lags behind other regions such as Europe and Australia where textiles are already prioritised. This represents an opportunity for New Zealand to consider its response to what is a global phenomenon, benchmarked against those being implemented in other economies. For example, policies oblige European Member States to:

- Collect textiles separately by 2025
- Ensure that textile waste collected separately is not incinerated or landfilled¹²

Extended Producer Responsibility (EPR) and Product Stewardship (PS) are policy tools that extend the producer's financial and/or operational responsibility for a product to include the management of the post-consumer stage. In European countries and in the United Kingdom, these schemes are designed by governments, with industry consultation and stakeholder engagement throughout the process. In

⁷ Textile Reuse Programme

⁸ Looking in the Mirror: A review of circularity in the clothing and textile industry in Aotearoa (2020)

⁹ Ten Years of Change in New Zealand Manufacturing Employment (1994)

¹⁰ Sector State of Play: Resource Recovery and Waste (2020)

¹¹ NZ CleanTech for the World The New Waste to Value (2020)

^{12 &}lt;u>Textiles in Europe's Circular</u> Economy (2019)

New Zealand and Australia the opposite occurs, industry leads the design and implementation of such schemes, with government as a stakeholder.

The Industry's Recommendations to Government¹³ delivered in 2021 proposed that a mandated Product Stewardship Responsibility Contribution (levy) on all textile products brought to market would assist in funding the considerable plant and infrastructure gap, drive job creation and economic benefits for Aotearoa New Zealand. It is currently unclear where the responsibility to move this forward lies. Is it central government, local government, or industry itself? This work may sit within an Industry Body, however no such body currently exists for the textile sector in Aotearoa New Zealand.

The Textile Product Stewardship Project was launched in 2019 as a 2–3 year package of work to engage the textile and clothing industry, and co-design an effective pathway towards stewardship that is effective and scalable in the New Zealand context. The core components of the work are research on the current state of play in Aotearoa New Zealand and provision of advice to government on the most effective pathway towards stewardship for the industry. The key project phases are summarised below:

- → Stage 1 (2020-2021): Scoping the potential for textile product stewardship in New Zealand:
 - Research report <u>Looking in the Mirror: A review of circularity in the clothing and textile</u> industry in Aotearoa.
 - Industry stakeholder engagement workshops to develop shared understanding of the challenges and necessary direction towards stewardship in the industry.
 - Recommendations to the New Zealand Government from the Clothing & Textile Industry.

→ Stage 2 (2022):

- Identify Participants in Voluntary Textile Product Stewardship Pilot Project and establish participation agreements.
- Establish Product stewardship requirements for Post-Consumer Clothing and Linens based on 100kg audit.
- Define and establish pilot trials for product pathways across two dominant fibre types.
- <u>Audit and Impact Report</u> documenting post-consumer clothing Product Stewardship findings and recommendations to be provided to the Ministry for the Environment.
- Research report Waste-to-Value : Textiles as Raw Materials for Other Industries.
- Delivery to the Ministry for the Environment 'Recommendation of an appropriate vehicle for Textile Product Stewardship to set up and administer an accredited voluntary Product Stewardship Scheme for textiles in New Zealand'.

The COVID pandemic has had a dampening effect on the level of engagement and progress. Retail fashion and textile business in particular have been put under financial strain as New Zealand passed through phases of COVID-related restrictions. The industry's ability to engage with government was also negatively impacted, with rescheduling and ultimately cancellation of the planned Industry–Government Hui at Parliament in 2021.

¹³ Recommendations to the New Zealand Government from the Clothing & Textile Industry (2021)

About UsedFULLY®

UsedFULLY's mission is to transition industry to a low carbon, circular economy by implementing new technologies and business models at scale. Reducing the environmental impacts of clothing and textiles aligned with global decarbonisation targets. Ensuring the full value of textile resources are maximised, to minimise the impacts of what we clothe and protect ourselves with. Creating a better world for all.

Working together with industry partners, UsedFULLY is driving the reuse of unwanted clothing and textiles, preventing them from going to landfill by co-designing and implementing a national textile circular system to fully utilise this untapped resource.

The textile industry in Aotearoa New Zealand is broad and includes domestic clothing, domestic textiles, commercial clothing, commercial textiles and industrial textiles. In the absence of a national textile body, UsedFULLY has been providing expert industry advice to government and advocating on behalf of the textile industry.

To find out more we invite you to visit our website <u>usedfully.com</u>, and to read some of our recent publications:

- Looking in the Mirror: A review of circularity in the clothing and textile industry in Aotearoa (November 2020)
- <u>Usedfully Textile Reuse Programme : Submission on the Climate Change Commission Draft</u> Proposal (March 2021)
- Recommendations to the New Zealand Government from the Clothing & Textile Industry (May 2021)
- Post-Consumer Clothing, Homewares & Linen, Audit & Impact Report (2022)
- Waste-to-Value: Textiles as Raw Materials for Other Industries



Methodology & Process

The Textile Reuse Programme supported by the Steering Committee and a Product Stewardship Advisory Committee, has led the Industry engagement to define the key components of a Voluntary Textile Product Stewardship Scheme. During 2020 and 2021 over two hundred industry stakeholders participated in workshops, working groups and interviews co-designing a Voluntary Textile Product Stewardship Scheme. Further stakeholder engagement was undertaken in 2022 in order for industry to determine the most appropriate legal vehicle for the set up and administration of a Textile Product Stewardship Scheme.

Process

An Advisory Group of industry experts was established to provide oversight and independent review, to provide specialist knowledge and experience to assist in the successful delivery of the project, assist with promotion and stakeholder engagement and to hold the bar high.

Expert legal advice was sought from lawyers at Chapman Tripp as to the range of the different Product Stewardship Organisation structures.

In August 2022 a Survey was sent out to approximately 450 stakeholders. 270 Textile Product Stewardship Project Registrants from earlier project engagement, plus a further 180 identified stakeholders. The Survey was also advertised through UsedFULLY Social Media channels. 55 completed surveys were received, responses were collated and data analysed from both quantitative and qualitative perspectives.

An industry Webinar was held on 21st September 2022 to present the headline findings. Alexandra Kirkham, Senior Waste Specialist at Auckland Council, Chair of the WasteMINZ Product Stewardship Sector Group and on the Advisory Board of the Textile Product Stewardship Project presented a broad overview of Product Stewardship, then Brian Johnston, sustainability specialist and lead of the Textile Product Stewardship Project Advisory Board presented the survey findings, this was followed by a Question and Answer session and discussion.

56 people registered for the webinar, a recording of which is linked <u>here</u>.

Survey Results & Analysis

Participation – Industry Representation & Practices

The aim of the survey was to gather stakeholder views and perceptions from a broad cross section of the textile value chain in New Zealand. The initial questions were included to enable characterisation of the respondents based on their standard business activities, and the types of textiles that they engage with in their business activities.

Local Textile Value Chain – Sector Representation

Survey - Q7 to Q11

The value chain was segmented into activities a) Design or Production b) Distribution, Use or Disposal c) End-of-Life (E-o-L) or Recirculation d) Value Chain Supporters, and sub-categories. Many Respondents identified with more than one category e.g. Design or Production and Distribution, Use or Disposal, and did not always select only those core activities they undertake i.e. often occasional activities were also listed. This limited the direct effectiveness of the questions, so the answers were interpreted more qualitatively and based on the authors' knowledge of the stakeholders, which enabled the following respondent overview. 55 responses were received, with the majority coming from the 'Brand / Retailer' and 'End-of-Life Organisations' parts of the textile value chain. There was good spread of representation from across the whole value chain.

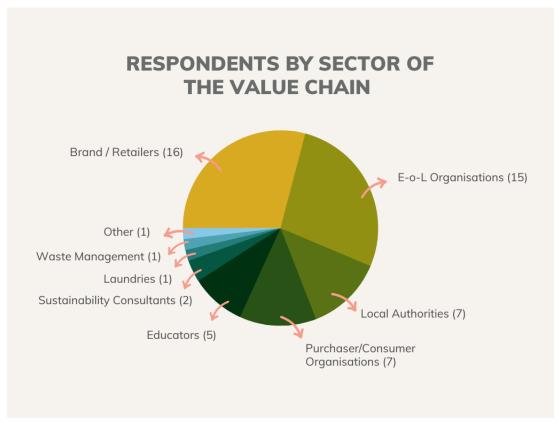


Figure 1 – Respondents by Sector of the Value Chain

Local Textile Value Chain – Textile Types Involvement

Survey - Q13

The survey attracted good representation from respondents who engage with consumer and commercial clothing in particular. The views of those who use or work with Consumer linens, curtains, upholstery and industrial clothing were also well represented. Commercial linens and flags textiles were not broadly represented.

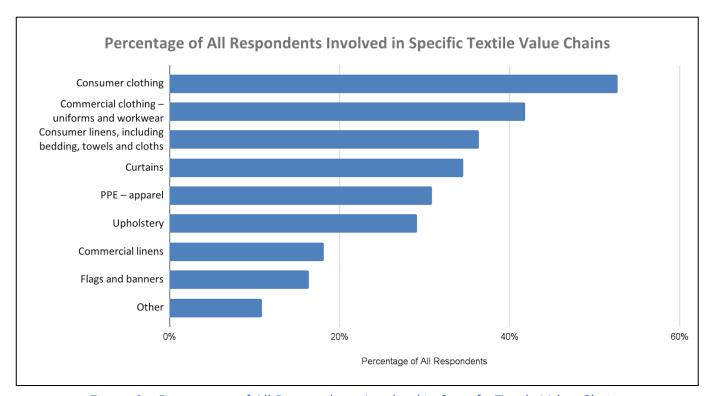


Figure 2 – Percentage of All Respondents Involved in Specific Textile Value Chains

Respondent membership of clothing and textile related industry bodies / membership programmes

<u>Survey - Q12</u>

Respondents reported a broad range of organisational memberships, perhaps reflecting the fragmented nature of the textile industry in New Zealand. Local memberships stated included:

Drycleaners & Launderers Association of New Zealand (DLANZ) Home Economics & Technology Teachers Association of NZ (HETTANZ), Mindful Fashion, National Curtain Bank Group, Retail NZ, Textile Reuse Programme, WasteMINZ, Zero Waste Network.

In addition, some respondents are based offshore, and stated International organisations:

American Association of Textile Chemists and Colorists (AATCC), Global Organic Textile Standard (GOTS) Textile Exchange.

Challenges Regarding Textile Product Stewardship / A More Circular Textile Economy

Survey - Q14

The survey responses here indicate a variety of challenges being faced by stakeholders. The responses varied significantly depending on where in the textile value chain the respondent is active. Examples are included below and align closely with feedback received in earlier phases of engagement for this multi-year project.

- Volumes are ridiculous. Control through mandatory product stewardship is necessary. No control on natural fibres mixed with synthetic. No industry training for identification and deconstruction (although we do have an industry ITO (MITO) who could include unit standards. No control on imported cheap textiles no support for NZ natural fibres.
- Clothing and textile are not part of end of life recovery of secondary plastics through soft plastics scheme
- Large flows of clothing and household textiles received through reuse stores. Limited options for markets for surplus. Time consuming to sort and separate. High volume low value items starting to dominate the streams. Many fabrics mixed fibre natural and oil based. Expectation that donating to second hand is a solution.
- Uniform and PPE purchasing not centralised depts. buy what they specifically need. Asset disposal policy is that uniforms can't be resold, must be given to charity or dumped. Embroidered logos makes reuse/ redistribution difficult.
- Finding items that are sustainable but also hard wearing/fit for purpose, finding reasonably-priced sustainable items in the styles/colours we require with good end of life prospects.
- Recycling Post Consumer Garments

Current practices for managing end-of-life textiles

Survey - Q15

Landfill is the primary destination for unwanted clothing and textiles, due to a lack of scaled onshore solutions for unwanted products.

Landfill

- Landfill
- Rubbish
- Made into rags, some goes into the rubbish
- Reuse trims and fabric where we can, the rest goes to the landfill
- Sell second hand where possible, otherwise landfilled
- Landfill would be the option as the cost of repair is too high in many cases. The CRRCs only accept clothing that is likely to sell so there is likely significant amounts that aren't accepted
- We attempt to send to recycling however the facility is limited in what it can accept, sadly sometimes landfill is the only option currently
- Landfill once they have been sorted for reselling, upcycling, rag trade
- Either landfill or cut up for mechanics to use
- Send to landfill

Reuse

- Repair where possible. Storing to build up volume for circular solution
- Donate wearable goods to charities and staff. Faulty or damaged get donated to our screen printers as rags
- Upcycle into projects
- Unwanted curtains if in good condition get either sent to a reseller or Sustainability Trust Curtain Bank. Any off cuts of cellulose fibres get turned into paper. We cut around faults to turn into other products, faulty printed fabrics get turned into tea towels if suitable. Any 100% polyester off cuts currently stockpiled. Damaged mouldy mixed fibres unfortunately go to landfill.
- Create raw material products for other industries
- Separate by fibre type, each type put in own bag and labelled, and put into Savemart bins
- Cotton rags, some high value ski jackets are repaired. Some clothing goes to Vanuatu (not a reliable market). Landfill
- If it's clothing that can still be reused we donate it to charities that can accept it. We are stockpiling 100% polyester for recycling

Scheme Funding Responsibilities

Survey - Q16 to Q19

The survey presented the whole value chain from cradle to grave including value chain supporters (e.g. education) asking respondents which functions within the chain are responsible for funding a product stewardship scheme.

Key activities with responsibility to fund the scheme

Respondents' comments highlight that progress will not happen automatically, industry needs to internalise stewardship and integrate it into the way the industry works.

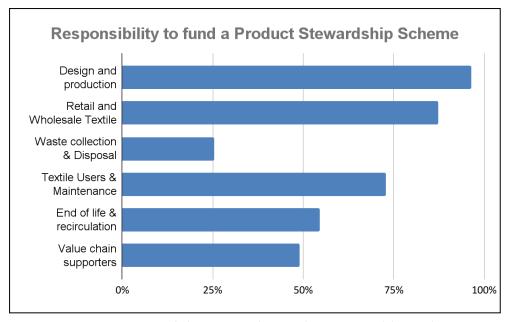


Figure 3 – Responsibility to Fund a Product Stewardship Scheme

Observations

- Majority of respondents (96%) see Design and Production as having responsibility to fund a Product Stewardship Scheme.
- It is unclear what role raw materials suppliers have (lower %), whether they are domestic or offshore.
- Laundries and Drycleaners are within the 'users and maintenance' category, but respondents rated it as 9%, much lower as expected.
- End-of-Life and Recirculation there was a split in this section although all were quite low:
 - Collectors, Sorter etc. + Recyclers etc. higher 22%
 - o Logistics etc. + Resellers etc. lower 13-15%
- Within value chain supporters two were much higher than others:
 - o Policy creators 24%
 - Trade associations 40%

- Most systems find the Brand owner is the most appropriate point of fund connection as they also have the greatest influence over all other aspects.
- If imported complete, then the importer so as not to distort the market against local producers.
- Brands & Consumers equally
- We believe the manufacturers and importers should implement an Advanced Disposal Fee
- Retailers
- None of the above
- Any activities that introduce product into the supply chain are responsible for funding the scheme
- Importers and brand stores because there could potential to strike a balance between import duty and for items compliant with the new system, as well as a end user funding of programs (similar to GST)

Are Other or Additional Funding Mechanisms Important to Support Textile Stewardship?

Survey - Q24

Other areas of funding outside of the direct value chain, like the Waste Levy, Waste Minimisation Fund, Council funding, Sponsorship, Private Investment etc.

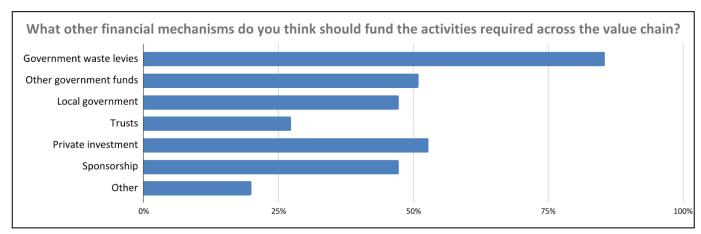


Figure 4 – What other financial mechanisms do you think should fund the activities required across the value chain?

As the scope of the survey was specifically about a 'Voluntary' Product Stewardship Scheme, it will take time for organisations to opt in and for the scheme to scale, government waste funding was seen as a key financial mechanism to support stewardship and enable the transition to a more circular system. Other funding options were also selected as being of interest. Trusts were low, it is unclear why that may be.

Given the higher proportion of respondents who were retailers or brands, we conducted some additional analysis of those respondents' answers to this 'additional funding' question. The analysis shows that an even higher proportion (89%) of respondents in this part of the textile value chain believe that part-funding of activity via the 'waste levy' is important. The second-highest result was for Local Government funding being important (67%).

- WMF & Emissions reduction
- Tax incentives for repair businesses
- Onus should be on those making profit for placing textiles into the market
- The industry needs to fund its solution, relying on externalisation of costs fails to deliver genuine circular solutions
- Economic instruments tax or levy, handling fee, eco modulation etc
- The scheme should be self-funding from the levies it collects, however from time to time, there could be scope to use government waste levies for new activities e.g. contribution towards equipment that may offer up new recovering options, etc but the scheme should not be reliant on government waste levies
- A system similar to GST that taxes poor performing items and imports, paid through from the end user via the retailer, and creates more price parity at the point of sale for well designed/manufacture/ accredited textiles
- The consumer should fund the entire scheme

Scheme Delivery Responsibilities

Key activities with responsibility to deliver impact via the scheme i.e. to be funded

Survey - Q20 to Q23

As well as gathering industry opinion this question also identified key areas of the value chain that most need support to close the circular economy gap. Things that may be challenging but are important or meaningful, areas where funding and support are needed, like crucial infrastructure and scaling up.

End-of-Life and Recirculation was almost unanimously agreed (98% of respondents) as an activity that should receive financial support. 80% of respondents thought Value Chain Supporters, which includes education and research, should be financially supported. 73% thought Distribution Use and Disposal should receive financial support. With 65% selecting Design and Production activities receiving financial support from the Fund. Touching on the challenges for designers and brands in selecting materials that are more durable, or able to be repurposed in a more circular way. Highlighting support is needed at the design phase in order to close the loop.

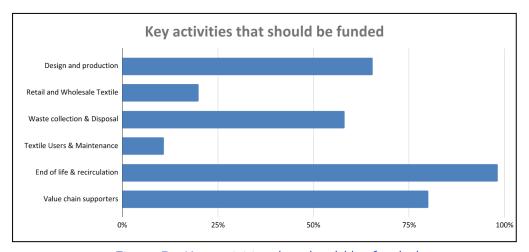


Figure 5 – Key activities that should be funded

Observations

- Design and production rated quite high, and slightly higher than waste collection and disposal.
 Which could point to the challenges in selecting more sustainable materials
- waste collection etc: waste management companies were 51%, local council at 25%
- logistics, within end of life etc @ 40%, so lower than most other sub-categories

- Recyclers and educators should receive funding
- Incentivise organisations that minimise waste through design and production life cycle controls
- It depends how much funding is available through the scheme. If the costs were fairly distributed, then those responsible for paying the fees would be absorbing the cost of design and manufacture towards more circular outcomes into the cost of doing business, which means none of the processes above should receive financial support from the fund. The producers could lower their costs for the above activities if eco-modulation fees were used that charged

higher fees to textile products where the end of life had not been considered, or had fewer options than a textile product that was closed loop or circular.

• People like us (E-o-L) who are trying to resource the existing problem

Within this set of questions we also looked into the detail of responses within the activity area 'Value Chain Supporters'. This area is quite broad, and our industry engagement to-date has clearly identified the need for more activity in this area to support a circular economy. The results show that Educators and Researchers were clearly the activity areas in this category that are viewed as needing the financial support from a stewardship scheme. This is in-line with results from engagement in other countries and in other sectors for product stewardship system design in New Zealand. Educational and research elements need to be built into a scheme to maintain focus on achieving high levels of public engagement and rigour in measuring and assessing the effectiveness of any scheme.

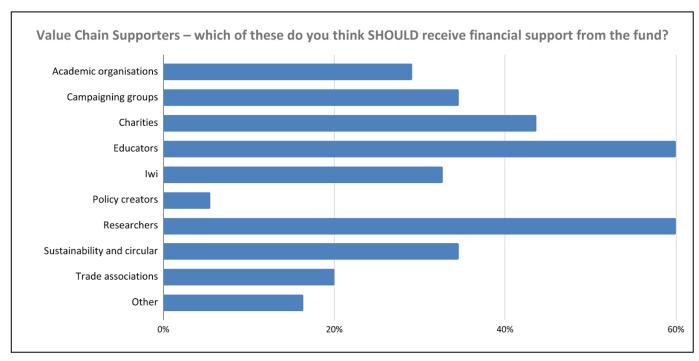


Figure 6 – Value Chain Supporters

- Possibly for all of the above, depends on design of scheme and how financial support is distributed.
- Anyone contributing positively to reuse of materials. For education or action to reduce end waste
- These are scheme design decisions, rather than specifically requiring these to be funded
- From time to time if the programme is to be successful, research will be required in order to track progress or identify new recovery options, also education will be an ongoing function of the scheme. If one of the organisations listed above is fulfilling one of those functions, or the function of recovery the textiles or administering the scheme, they could potentially be paid by the scheme funds.
- People at grass roots doing huge mahi as well as educators. It doesn't need to be hugely complicated.

Scheme Legal Structure & Management

Legal Structure of a Product Stewardship Organisation

Survey - Q25 to Q26

The Waste Minimisation Act (WMA) does not specify a particular governance or legal structure for a product stewardship scheme whether voluntary or regulated. However, as part of the accreditation process, the responsible Minister will look at the programme to ensure that the governance, and if necessary, legal structure adopted is suitable for the scheme's design and objectives.

The legal entity-specific features include that the:

- scheme will be managed by a legally registered not for profit body (this includes an incorporated society (charitable or non-charitable), a charitable trust and a charitable company;
- board will be appointed through an open and transparent process;
- board needs to represent the interests of producers and consumers as informed by stakeholder advisory groups.

The PSO is the legal entity that owns and governs the stewardship programme on behalf of the value chain. Legal advice suggests the most appropriate legal options for a PSO for textiles in New Zealand are:

- Incorporated Society (not-for-profit by design; may or may not need charitable status)
- Charitable Trust
- Company with charitable status

A PSO could be kept very lean and only have officers who award and monitor commercial contracts for all aspects of service delivery (management, marketing, auditing, collecting, transporting, processing, end use) *OR* it could have employees with responsibility for the key functions (e.g. management, marketing and auditing) who report to the Officers. Given the range of activities required above, what is your preference?

Textile PS Scheme – PSO Structure	Count	Percentage
Have employees as required	37	67%
Have officers only	10	18%
Not Selected	8	15%
Totals	55	100%

Figure 7 – PS Scheme – PSO Structure

What options are most appropriate to fund management and operations of the PSO?

Textile PS Scheme – PSO Funding Option	Count	Percentage
Government funding	37	35%
Membership	20	19%
A percentage of a Product Stewardship Scheme fund	45	43%
Other	3	3%
Totals – 53 of 55 respondents selected (96%)	105	100%

Figure 8 – PS Scheme – PSO Funding Options

Highest % is for scheme financing the organisation – note that for a voluntary scheme if small then the proportion of funding for the PSO would need to be higher. A larger scheme is expected to enable a PSO that requires a lower proportion of the total funding to operate.

What is the most appropriate legal structure for a PSO in NZ?

Survey - Q27

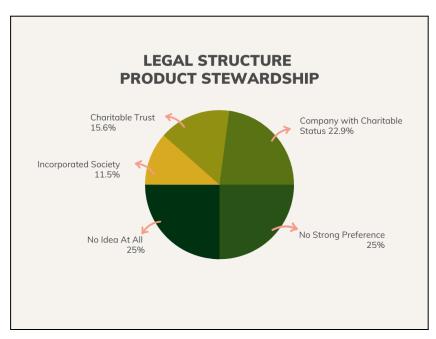


Figure 9 – Legal Structure Product Stewardship

While background information was provided on the different vehicles for a Product Stewardship Scheme within the New Zealand legal context, the results show that half of the respondents either did not have a strong preference, or had no idea as to the legal structure of a Textile Product Stewardship Organisation. Pointing to the challenge New Zealand faces with the expectation that industries lead the design of their own Product Stewardship schemes, a lack of experience and knowledge in the design and implementation of such schemes.

Qualitative Data Analysis

The Survey included the option for respondents to provide free text responses or clarifications throughout. While not all respondents chose to, many did provide free text responses. These were analysed, with recurring words and phrases then categorised into Dominant Themes. Dominant Themes were then analysed to identify underlying Emergent Themes. The purpose of this analysis was to surface the underlying themes in the responses, to better understand the different perspectives of respondents.

Dominant Themes

→ Volumes of textile waste

"The sheer volume of donations"

"The volume of textile waste disposed of in the district"

"There is so much of it"

"Volumes are ridiculous"

"Donation requests are excess to capacity"

"Volume of clothing that is not resalable, volume of clothing in general that comes in."

"A large volume comes directly from some second hand clothing retailers."

→ Responsibility

"The manufacturer should be the one responsible"

"Those responsible for the waste, not those trying to clean it up!"

"The industry needs to fund its solution, relying on externalisation of costs fails to deliver genuine circular solutions"

"Poor participation and commitment from existing importers and manufacturers to deal with their problems"

"Importers and manufacturers" "The makers of the goods"

"EPR rely on the Brand owner responsibility. This then flows to consumer"

"The fees should be built in at the producer stage, to cover the costs of these processes"

→ Lack of end-of-use solutions

"Limited diversion from landfill options"

"Expectation that donating to second hand is a solution"

"Limited options for recycling end-of-life textiles."

"Lack of facilities to recycle materials"

"Currently our workwear garments have to be landfilled."

"We don't have the industry in New Zealand to deal with end of life products."

"Clothing and textile are not part of end of life recovery of secondary plastics through soft plastics scheme"

→ Role of Government

"Funding support "Infrastructure - WMF & Emissions reduction"

"Tax incentives for repair businesses"

"Economic instruments - tax or levy, handling fee, eco modulation etc"

"A system similar to GST that taxes poor performing items and imports, paid through from the end user via the retailer, and creates more price parity at the point of sale for well designed/manufacture/ accredited textiles"

→ Economics

"Lack of prioritisation has led to a lack of investment in crucial infrastructure"

"We think the scheme needs to be funded at the top of the chain and the End-of-life and recirculation communities are able to access funding from this scheme to create a more sustainable model"

→ Urgency

"Pull finger and get on with it - 20 years late already!"

→ Other observations noted

"The PS scheme must include targets for reducing the production of waste, and not just focus on how best to handle the waste at end of life or through production."

One contributor suggested there needs to be "Remediation costs for waste accumulating in the environment (microfibers and PFAS)"

"It is probably unrealistic but I would like to see our recycling issues solved onshore and local manufacturing thriving again like it used to."

Emergent Themes

There is strong industry desire to reduce textile waste and improve circularity to textile resources, however this is hindered by lack of infrastructure and scaled solutions for end-of-use textiles.

Low level of awareness from the producers, brands and suppliers of the cost of infrastructure and R&D required to provide properly scaled end-of-use solutions. A voluntary product stewardship scheme will take time for industry to adopt and scale, making government funding sources all the more crucial in building a viable, equitable, circular system for textile products.

There is frustration across the value chain. Industry is frustrated that there is a lack of scaled end-of-use solutions that they can tap into to meet their customers' expectations. From the end-of-use sector there is frustration at the lack of support and acknowledgement of responsibility from brands and suppliers, lack of understanding of the scale of investment required, as well as absence of prioritisation and funding support from government to address crucial infrastructure gaps. Some saw the responsibility and cost lay solely with industry, while others believe government has a key role to play in contributing public funding and employing other non-funding levers.

The COVID pandemic has had a dampening effect on the level of engagement. Retail fashion and textile businesses have been put under financial strain as New Zealand passed through phases of COVID-related restrictions. The industry's ability to engage with government was also negatively impacted, with rescheduling and ultimately cancellation of the planned Industry–Government Hui at Parliament in 2021.



Recommendations

A Circular Systems Solution for Textiles in Aotearoa is Urgently Needed

Over the last few years activism has raised awareness of the environmental and social impacts of the fashion sector. However, the textile industry and its impacts are so much broader than fashion and so ubiquitous that we barely notice the textiles we are surrounded by; the privacy curtains in hospitals, the towels in hotels, the frost cloths in vineyards. Large volumes of end-of-life textiles are currently going to landfill in New Zealand, when a large proportion could actually be diverted into the reuse and recycling sector of the economy. In addition, our engagement with stakeholders across the textile value chain during this project has confirmed a high level of interest in addressing the challenge collaboratively.

Small and remote, the New Zealand market needs a coordinated approach to achieve the scale necessary to address the challenge economically. Any scheme needs to be designed for and inclusive of, domestic clothing, domestic textiles, commercial clothing and commercial textiles. A scale solution, in turn, needs engagement by all sectors within the textile industry across the value chain; including growers, manufacturers, designers, retailers, suppliers, procurers and end-of-use organisations through to local and central government. Small-scale efforts, while providing some insight, do not and cannot provide meaningful scaled solutions in our local context – only an integrated approach across the whole textile sector is likely to succeed in New Zealand. Addressing circularity and decarbonisation of the industry needs to be expanded beyond "Waste Management" and viewed as integrated within the economic, political, and socio-cultural environment. The opportunity for increased regional resilience, industrial & commercial autonomy and economic and social opportunity through a revitalised industry could be catalysed through the implementation of a textile product stewardship scheme.

Aligning with other regions such as Australia and Europe in market regulation and expectation will assist New Zealand to meet its own emissions reduction targets and global obligations. Textiles are seen globally as a hotspot for emissions and other environmental impacts, and are increasingly included in circular economy and carbon emissions reduction policy. ¹⁴ Australia – as a comparison has a much better (Federal) funded initiative to deliver textile product stewardship. New Zealand should align its approach with that of the Australian government, providing funding for systems engagement, scheme exploration and infrastructure investment.

It has become evident that on their own, voluntary industry-led initiatives face considerable challenges. While the scope of this project is voluntary product stewardship, insights gained through the Project identified a preference for a mandated scheme The industry has voiced a strong preference for a mandated scheme over a voluntary scheme which punishes first movers and more progressive organisations. Discussions with publicly listed brands, which contribute larger volumes of product to market, highlighted that shareholders are unlikely to support voluntary participation in a scheme (suggesting it would need to be mandated to get approval from board members and shareholders). Without larger brands participation, boutique and smaller or more progressive brands would unfairly shoulder the responsibility and is unlikely to result in a feasible, equitable, financially sustainable Product Stewardship scheme." 16

¹⁴ EU Strategy for Sustainable and Circular Textiles (2022)

¹⁵ Overcoming Free Riders: Strategies to maximise industry participation (2021)

¹⁶ Textile Product Stewardship Project Post-Consumer Clothing, Homewares & Linen Audit & Impact Report (2022)

In comparison to New Zealand's options of either a voluntary or mandatory scheme, Australia has three scheme options:

- industry-led voluntary schemes
- co-regulatory arrangements between industry and government
- mandatory schemes under law

Co-regulatory schemes are effectively non-voluntary for businesses over a certain threshold (income or volume supplied to market) this approach could potentially address the industry's concerns about voluntary schemes.

In European states and in the United Kingdom, governments lead the design of stewardship schemes, ensuring that the designs align to government objectives and targets. Industry, as a key stakeholder, provides its expertise throughout the consulting process and may also operate the scheme. New Zealand has taken the opposite approach, with industry leading the design and government a stakeholder (and accreditor). This can present some challenges, lack of depth of knowledge of stewardship schemes within industry, potential vested interests and poor oversight of government objectives can lead to schemes designed with good intention, but failing to actualise the potential for transformative change for both industry and society¹⁷.

In this context, we believe that the government has several critical roles to play in supporting industry efforts to adopt a more circular product stewardship approach for textiles. Government can:

- partner with industry in a Textile Working Group bringing depth of knowledge of scheme designs and targets aligned with New Zealand's environmental and societal objectives;
- provide clear policy that signals the direction of travel for textile circularity and carbon emissions standards and regulation; and
- integrate preference for circular economy solutions into its textile procurement requirements for government entities.

Adopting these roles will give industry the confidence to start scaling up efforts and to start committing capital to invest in the necessary infrastructure to support more circular solutions. We are already seeing the effects of Australia's governmental activity in this space in New Zealand, through the increased presence of Australian businesses offering solutions. Regardless of the origin of these businesses, we strongly recommend that New Zealand collectively invests in building domestic capacity to properly design and implement a circular economy for textiles, and hence avoid the risk and cost of shipping end-of-life materials offshore. Industry as suppliers and manufacturers have a responsibility for the product they bring to market, as well as being a testbed for circularity through their manufacturing supply chains. Bringing industry and government together to work together towards improved stewardship of resources, transitioning to a circular economy is what is needed now.

Shared ownership of the textile waste challenge is needed – only through a combination of broad-based stakeholder engagement, clear government direction, and a combination of industry and government funding can progress be made.

¹⁷ Foxes Guarding the Hen House?Industry-led design of product stewardship schemes (2021)

Textiles Product Stewardship Organisation (PSO) – Recommended Structure

The results of the stakeholder survey show that many stakeholders are not yet clear (or are disinterested) in the potential options around PSO structure. Most want to see progress being made, and are neutral as to the structure that delivers this. However, respondents did provide clear feedback on other elements of an initial PSO for textiles which we recommend be used as a starting point.

- The PSO is funded through a proportion of the fees received for the scheme.
- The PSO has sufficient employees to deliver on its core scheme management objectives (rather than outsourcing).
- Modulated participation fees that encourage or incentivise a life-cycle analysis and fibre selection that reduces carbon emissions through production phase, and whether there are recovery options for the fibre at end of life, through the fee structure.
- Modulated participation fees that incentivise the production and/or sale of clothing that can be repaired.
- Funding of increased end-of-life recirculation activities e.g. collectors, sorters, aggregators, recyclers, remanufacturers, resellers. This funding would not be solely to increase the volume of textile able to be diverted from landfill, but to also enable each activity to boost its productivity e.g. industry training for identification and deconstruction of clothing items once they are ready to enter the recycling or waste phase of their life cycle.
- Funding of value-chain supporting activities, particularly educators (to shift behaviour away from consumption), researchers (to study the system and impacts), and charities (who play a critical role in current reselling).

Next Steps

The following steps are recommended in order for stakeholders to build more momentum towards addressing the textile waste challenge in New Zealand. They form a pathway towards a regulated product stewardship scheme for textiles, with the ultimate goal of using economic policy instruments to constrain the vast volumes of low-value textiles being consumed in the New Zealand market, to bring this back to a level that fits within planetary boundaries. A regulated scheme is recommended as the ultimate target, to address industry concerns around the potential in voluntary schemes for 'free-riders'.

1. Formation of a Government – Industry Leadership Group

This group would commit to bringing stewardship for textiles to fruition, through creating greater connection and understanding between industry and government. Ultimately it could co-design the scheme, set clear targets and objectives and monitor the effectiveness of a scheme. There is extensive breadth and depth of knowledge and experience across the public and private sector in the WasteMINZ Product Stewardship Sector Group which could be drawn upon as an external advisory to a Government – Industry Leadership Group.

GOAL – To define and fund a pilot that will inform a future approach. Establish a Textile Working Group with appropriate government organisations to enable a greater two-way flow of knowledge, expertise and support between industry and government. Closer industry-government collaboration is needed in order to develop potential approaches to funding and financing of viable Textile Product Stewardship.

2. Definition of Initial Voluntary Product Stewardship Pilot and Supporting PSO Structure, and Running of Pilot

The government-industry leadership group will determine the scope of the initial stewardship pilot, and the initial PSO structure that is needed to administer it. This work is essential in order to bridge the gap between our current position, and a future where we have tested a voluntary scheme and have learned what will work best for an industry-wide scheme. Participation in the pilot scheme will be led by those brands and retailers that are willing to fund the pilot, and the scope will be determined by the level of funding available. The goals of the pilot will need to be clearly defined in order to assess whether it has been successful.

The PSO would be a legal non-profit entity that owns and operates the stewardship programme on behalf of the value chain, is able to pay staff, and is majority funded by the fees collected from regulated scheme participants. For the pilot it will necessarily need to be quite small i.e. in scale with the pilot work to be done.

The PSO should be a not-for-profit to ensure all funds received are directed into the objectives of the scheme. The PSO is delegated responsibility for managing levies paid by participating producers / brands, implementing the scheme, identifying and distributing fees to emerging technology that helps design out waste and improve the durability of clothing, along with investing in recovery infrastructure. The PSO will be responsible for monitoring and reporting on the performance of the pilot (and ultimate) scheme to the Textile Working Group and other stakeholders.

Once the elements above are defined, the PSO can be formed, and the pilot can commence.

Develop Requirements for Accredited Scheme and PSO

Based on work conducted in other industries towards accredited stewardship schemes, we believe that this phase will require government funding and engagement in order to be successful.¹⁸ This is a critical step in the path towards an accredited scheme, and investment is needed in addition to the costs of running the resulting scheme.

In order for the scheme to be successful in shifting both consumption patterns and increasing circularity, we believe that the following areas of focus should be embedded into any future scheme for textiles:

- Capacity building, identification of implementation gaps, circular innovation gaps, policy gaps.
- Financing and assignment of infrastructure for collection, aggregation and sorting of post-consumer and post-commercial textile resources.
- Funding and research to establish sustainable onshore end-of-use solutions.
- Policy research to determine what policies are necessary to improve the implementation of end-of-use solutions.
- Behaviour change initiatives to support and educate citizen consumers and organisations in sustainable consumption and care practices, and industry practitioners in ethical production and consumption; and stewardship of resources.

¹⁸ Foxes Guarding the <u>Hen House?Industry-led design of product stewardship schemes (2021)</u>

Thanks

We would like to take the opportunity to thank all survey respondents for sharing their perspectives on the future of textile product stewardship in Aotearoa New Zealand. Thanks also to the Textile Product Stewardship Phase 2 Advisory Group members – Saeid Baroutian (University of Auckland) James Griffin (Sustainable Business Network), Alex Kirkham (Auckland Council), James Stonyer (Deane Apparel) and Emma Wallace (Kowtow), for their discussion, review and feedback during the course of this part of the project.

Appendix 1 – Survey Questionnaire

UsedFULLY – Textile Product Stewardship Project – Survey (Aug 2022)

The survey has been broken down into sections (highlighted in blue below). Survey questions are the numbered items (below).

The actual <u>survey link is here</u>, survey content follows...

WELCOME SCREEN

Body Text -

Kia ora, thanks for being here.

The final delivery of the Textile Product Stewardship Project for the Ministry for the Environment is the industry 'Recommendations of an appropriate vehicle for Textiles Product Stewardship to set up and administer an accredited voluntary Product Stewardship Scheme for textiles in New Zealand'.

The purpose of this survey is to gather Industry opinion to inform recommendations to government.

We would like to better understand the challenges that you and your organisation face regarding clothing and textile waste in Aotearoa New Zealand, your thoughts on Product Stewardship and how you think a scheme should be administered if implemented.

Answer as many or as few questions as you like. Your input will provide an industry perspective and assist with policy development enabling the transition to a low carbon future.

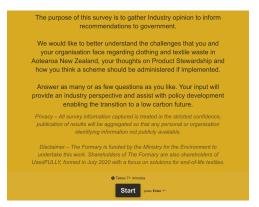
Description Text -

Privacy – All survey information captured is treated in the strictest confidence, publication of results will be aggregated so that any personal or organisation identifying information not publicly available.

Disclaimer – The Formary is funded by the Ministry for the Environment to undertake this work. Shareholders of The Formary are also shareholders of UsedFULLY, formed in July 2020 with a focus on solutions for end-of-life textiles.

Survey Screen -





YOU & YOUR ORGANISATION

Body Text -

You & Your Organisation

Description Text -

Privacy – All survey information captured is treated in the strictest confidence, publication of results will be aggregated so that any personal or organisation identifying information not publicly available.

Survey Screen -



1. Organisation name

Survey Logic - Mandatory - Short Text

Question Text -

Name of organisation?

Description Text -

none

Survey Screen -



2. Your name

Survey Logic - Mandatory - Short Text

Question Text -

Your name?

Description Text -

none

Survey Screen -



3. Your email

Survey Logic - Mandatory - Email Address

Question Text -

Your email?

Description Text -

none

Survey Screen -



4 Your role

Survey Logic - Mandatory - Choose One Option / Other (freeform text)

Question Text -

What best describes your role?

Description Text -

none

Options –

- CEO / Senior Management
- Consultant
- Customer Service

- Owner / Shareholder
- Policy Maker
- Procurement

Survey Screen -



- Sales & Marketing
- Sustainability
- Other

5. Organisation size

Survey Logic - Optional - Choose One Option

Question Text -

Size of organisation (number of staff)?

Description Text -

none

Options -

5 or less

• 21 to 50

• 6 to 20

51 to 500

over 500

Survey Screen -



6. Organisation location

Survey Logic - Mandatory - Long Text

Question Text -

Where is your organisation located?

Description Text -

Please list all locations / regions / nationwide...

Survey Screen -



7. Organisation purpose

Survey Logic - Optional - Long Text

Question Text -

What does your organisation do - main purpose(s)?

Description Text -

none

Survey Screen -



FUNCTIONS OR ACTIVITIES

Body Text -

Functions & activities that apply to your organisation with regards to textiles.

Achieving textiles circularity requires action along the entire value chain to reduce waste pollution and emissions. Decisions made in design and production have a ripple effect that contributes to how the purchaser acquires, uses, and disposes of their textiles, how the textiles may later be reused, and ultimately, whether materials can be reclaimed and recycled to enter secondary markets.

Research and development currently undertaken to establish scalable onshore solutions as alternatives to textile waste going to landfill requires ongoing development funding. New waste to value supply chains are required with appropriate expertise and infrastructure.

Description Text -

The key functions of the ecosystem / value chain have been split into questions across these four areas:

- 1. Design and production.
- 2. Distribution, use and disposal.
- 3. End-of-life and recirculation.
- 4. Value chain supporters

These categories apply across apparel, linens, curtains, upholstery, flags and banners for both domestic and commercial use.

Survey Screen -



8. Design and production

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Design and production

Description Text -

Please check all functions/activities that apply to your organisation. If nothing applies, click continue to move to the next category.

Options -

- Design
- Finished goods manufacturing
- · Pre-production excess handlers
- Raw material supply (fibre, fabric, trims and notions)
- Other

Survey Screen -



9. Distribution, use and disposal

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Distribution, use and disposal

Description Text -

Please check all functions/activities that apply to your organisation. If nothing applies, click continue to move to the next category.

Options -

- Brand stores and general retailers of apparel or textile products
- Importers
- Laundries and drycleaners
- Local authorities
- Purchasers (consumers and organisations)
- Waste management companies
- Wholesalers
- Other

Survey Screen -



10. End-of-life and recirculation

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

End-of-life and recirculation

Description Text -

Please check all functions/activities that apply to your organisation. If nothing applies, click continue to move to the next category.

Options -

- Collectors, sorters and aggregators (material recovery)
- Logistics, haulage and storage
- Recirculators (repair, remakers, reuse)
- Recyclers, reprocessors and remanufacturers
- Resellers (charities and for-profits)
- Other

Survey Screen -



11. Value chain supporters

Survey Logic – Optional – Multiple Choice / Other (freeform text)

Question Text –

Value chain supporters

Description Text -

Please check all functions/activities that apply to your organisation. If nothing applies, click continue to move to the next category.

Options -

- Academic organisations
- Campaigning groups
- Charities
- Educators
- Iwi
- Policy creators

Survey Screen -



- Researchers
- Sustainability and circular economy consultants
- Trade associations
- Other

TEXTILES

Body Text -

Textiles

Description Text -

For the purpose of this survey, "**textiles**" include clothing and linens across both domestic and commercial use. We also include curtains, upholstery, flags and banners. Excluded are footwear, carpets and flooring, industrial netting, sails and geotextiles, non-apparel PPE. The scheme may extend to these categories in the future.

Survey Screen -



12. Industry body / membership programmes

Survey Logic - Optional - Long Text

Question Text -

Please list all clothing and textile related industry bodies / membership programmes you or your organisation belong to?

Description Text -

Examples include but are not limited to <u>DLANZ (Drycleaners and Laundries)</u>, <u>Mindful Fashion</u>, <u>RetailNZ</u>, <u>Textile Reuse Programme</u>

Survey Screen -



13. Textiles associated with operations

Survey Logic – Optional – Multiple Choice / Other (freeform text)

Question Text -

Which categories of textiles are associated with your organisation's operations?

Description Text -

none

Options -

- Commercial clothing uniforms and workwear
- Commercial linens
- Consumer clothing
- Consumer linens, including bedding, towels and cloths

Survey Screen -



- Curtains
- Flags and banners
- PPE apparel
- Upholstery
- Other

14. Challenges for clothing and textile waste

Survey Logic - Optional - Long Text

Question Text -

What are some of the challenges for your organisation in regard to clothing and textile waste?

Description Text -

none

Survey Screen -



15. Current options for textiles

Survey Logic - Optional - Long Text)

Question Text -

What does your organisation do – main purpose(s)?

Description Text -

none

Survey Screen -



TEXTILE PRODUCT STEWARDSHIP SCHEME - RESPONSIBILITIES & FUNDING

Bodv Text -

Textile PS Scheme - responsibilities & funding

Description Text -

Product Stewardship (PS) and Extended Producer Responsibility (EPR) are critical policy interventions that can support circularity by incentivising the coordinated, systemic change required. It involves creating schemes that help shift the costs of managing waste from ratepayers and taxpayers back to those who benefit from the product. This ensures the costs of waste get considered when design, production, distribution and use decisions are made. In this way, product stewardship schemes can contribute to both a reduction in waste and to better recovery of materials from the waste stream. Those who benefit from the product fund the scheme and activities that may have otherwise been funded by society in general through rates or taxes are funded by the scheme.

A scan of global stewardship contributions show a range of mechanisms and rates e.g. France €0.0015 - 0.062 per piece (NZD\$0.024 - \$0.10) depending on the type of product, with a flat rate per annum or rate per item basis. Sweden has calculated that the introduction of EPR will lead to a T-shirt becoming SEK 0.23 (NZD \$0.04) more expensive for consumers.

Survey Screen -



Textile PS Scheme - key activities WITH responsibility to fund scheme

Body Text -

Textile PS Scheme - identifying key activities WITH responsibility to fund scheme

Description Text -

none

Survey Screen -



16. Design and production

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Design and production – which of these key activities **DO** you think have responsibility to fund the scheme? Description Text –

If nothing applies, click continue to move to the next category.

Options -

- Design
- Finished goods manufacturing
- Pre-production excess handlers
- Raw material supply (fibre, fabric, trims and notions)
- Other



17. Distribution, use and disposal

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Distribution, use and disposal – which of these key activities **DO** you think have responsibility to fund the scheme?

Description Text -

If nothing applies, click continue to move to the next category.

Options -

- Brand stores and general retailers of apparel or textile products
- Importers
- Laundries and drycleaners
- Local authorities

Survey Screen -



- Purchasers (consumers and organisations)
- Waste management companies
- Wholesalers
- Other

18. End-of-life and recirculation

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

End-of-life and recirculation – which of these key activities **DO** you think have responsibility to fund the scheme?

Description Text -

If nothing applies, click continue to move to the next category.

Options –

- Collectors, sorters and aggregators (material recovery)
- Logistics, haulage and storage
- Recirculators (repair, remakers, reuse)

Survey Screen -



- Recyclers, reprocessors and remanufacturers
- Resellers (charities and for-profits)
- Other

19. Value chain supporters

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Value chain supporters – which of these key activities **DO** you think have responsibility to fund the scheme? Description Text –

If nothing applies, click continue to move to the next category.

Options -

- · Academic organisations
- Campaigning groups
- Charities
- Educators
- lw
- Policy creators

- Researchers
- Sustainability and circular economy consultants
- Trade associations
- Other

Survey Screen -



Textile PS Scheme - key activities that SHOULD receive financial support from the fund

Body Text -

Textile PS Scheme – identifying key activities that you think **SHOULD** receive financial support from the fund $Description \ Text$ –

none

Survey Screen -



20. Design and production

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Design and production – which of these key activities do you think **SHOULD** receive financial support from the fund?

Description Text -

If nothing applies, click continue to move to the next category.

Options -

- Design
- Finished goods manufacturing
- Pre-production excess handlers
- Raw material supply (fibre, fabric, trims and notions)
- Other

Survey Screen -



21. Distribution, use and disposal

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Distribution, use and disposal – which of these key activities do you think **SHOULD** receive financial support from the fund?

Description Text -

If nothing applies, click continue to move to the next category.

Options -

- Brand stores and general retailers of apparel or textile products
- Importers
- Laundries and drycleaners
- Local authorities

- Purchasers (consumers and organisations)
- Waste management companies
- Wholesalers
- Other



22. End-of-life and recirculation

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

End-of-life and recirculation – which of these key activities do you think **SHOULD** receive financial support from the fund?

Description Text -

If nothing applies, click continue to move to the next category.

Options -

- Collectors, sorters and aggregators (material recovery)
- Logistics, haulage and storage
- Recirculators (repair, remakers, reuse)

Survey Screen -



- Recyclers, reprocessors and remanufacturers
- Resellers (charities and for-profits)
- Other

23. Value chain supporters

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

Value chain supporters – which of these key activities do you think **SHOULD** receive financial support from the fund?

Description Text -

If nothing applies, click continue to move to the next category.

Options -

- Academic organisations
- Campaigning groups
- Charities
- Educators
- Iwi
- Policy creators

- Researchers
- Sustainability and circular economy consultants
- Trade associations
- Other

Survey Screen -



Miscellaneous - responsibilities & funding

24. Other financial mechanisms

Survey Logic – Optional – Multiple Choice / Other (freeform text)

Question Text –

What other financial mechanisms do you think should fund the activities required across the value chain? Description Text –

none

Options -

- Government waste levies
- Other government funds
- Local government
- Trusts

Survey Screen -



- Private investment
- Sponsorship
- Other

TEXTILE PRODUCT STEWARDSHIP SCHEME - STRUCTURE

Body Text -

Textile Product Stewardship Scheme - structure

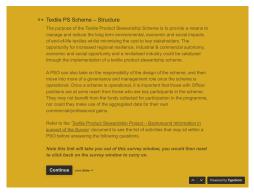
Description Text -

The purpose of the Textile Product Stewardship Scheme is to provide a means to manage and reduce the long term environmental, economic and social impacts of end-of-life textiles whilst minimising the cost to key stakeholders. The opportunity for increased regional resilience, industrial & commercial autonomy, economic and social opportunity and a revitalised industry could be catalysed through the implementation of a textile product stewardship scheme.

A PSO can also take on the responsibility of the design of the scheme, and then move into more of a governance and management role once the scheme is operational. Once a scheme is operational, it is important that those with Officer positions are at arms reach from those who are key participants in the scheme. They may not benefit from the funds collected for participation in the programme, nor could they make use of the aggregated data for their own commercial/professional gains.

Refer to the '<u>Textile Product Stewardship Project – Background Information in support of the Survey</u>' document to see the list of activities that may sit within a PSO before answering the following questions.

Survey Screen -



25. PSO – Officers / Employees

Survey Logic - Optional - Single Choice

Question Text -

A PSO could be kept very lean and only have officers who award and monitor commercial contracts for all aspects of service delivery (management, marketing, auditing, collecting, transporting, processing, end use) OR

it could have employees with responsibility for the key functions (e.g. management, marketing and auditing) who report to the Officers.

Given the range of activities required above, what is your preference?

Description Text -

none

Options –

- Have officers only
- Have employees as required

Survey Screen -



26. PSO - Funding

Survey Logic - Optional - Multiple Choice / Other (freeform text)

Question Text -

What options are most appropriate to fund management and operations of the PSO?

Description Text -

none

Options -

- Government funding
- Membership
- A percentage of a Product Stewardship Scheme fund
- Other



TEXTILE PRODUCT STEWARDSHIP SCHEME - LEGAL STRUCTURE

Bodv Text -

Legal Structure of a Product Stewardship Organisation

Description Text -

The Waste Minimisation Act (WMA) does not specify a particular governance or legal structure for a product stewardship scheme whether voluntary or regulated. However, as part of the accreditation process, the responsible Minister will look at the programme to ensure that the governance, and if necessary, legal structure adopted is suitable for the *scheme's design and objectives*.

The legal entity-specific features include that the:

- scheme will be managed by a legally registered not for profit body [includes an incorporated society (charitable or non-charitable)], a charitable trust and a charitable company;
- board will be appointed through an open and transparent process;
- board needs to represent the interests of producers and consumers as informed by stakeholder advisory groups.

The PSO is the legal entity that owns and governs the stewardship programme on behalf of the value chain. The legal options that most appropriate are:

- Incorporated Society (not-for-profit by design; may or may not need charitable status)
- Charitable Trust
- Company with charitable status

More detailed information is towards the end of the "<u>Textile Product Stewardship Project – Background Information in support of the Survey</u>" document.

Survey Screen -



27. Taking into consideration your answers to the above, what is your preferred legal entity for the PSO?

Survey Logic – Mandatory – Multiple Choice

Question Text -

Taking into consideration your answers to the above, what is your preferred legal entity for the PSO?

Description Text -

none

Options -

- Charitable Trust
- Company with charitable status
- Incorporated Society (not-for-profit by design; may or may not need charitable status)
- No strong preference
- Really have no idea



Miscellaneous

28. Other Comments

Survey Logic - Optional - Long Text

Question Text -

Is there anything else you would like to comment on?

Description Text -

none

Survey Screen -



FINAL SCREEN

Body Text -

Tēnā koe, your input is valued. We will review the responses and follow-up with a webinar in September.



Appendix 2 – Background Information

Background Information – support of the survey to determine a Textiles Product Stewardship Scheme legal entity

Product Stewardship

Product stewardship describes 'cradle-to-cradle' methodology that helps reduce the environmental impact of manufactured products.and is based on the concept that stakeholders throughout a value chain retain a level of responsibility for the social and environmental impacts of the materials produced and consumed (shared responsibility). All individuals throughout all stages of the products' life cycle, have differing but shared responsibilities for minimising that product's impact. The term 'extended producer responsibility' (EPR) is an environmental management strategy whereby a producer's responsibility for a product is extended to include the management of products in the post-consumer stage of a product's life cycle. In effect producers are allocated primary responsibility.

In 2016, The Formary established the Textile Reuse Programme, an industry leadership group, representative of all sectors of the industry, from manufacturers, designer fashion, commercial linens, charity resellers and waste management organisations etc. Providing the scale required in our small market to effect the systems change needed in reducing the environmental, economic and social impacts of textile products in Aotearoa-New Zealand. Over the last two years, The Textile Reuse Programme supported by the Steering Committee and a Product Stewardship Advisory Committee, has led the Industry engagement to define the key components of a Voluntary Textile Product Stewardship Scheme. This project has been funded by MfE and is now coming to a close (end of Stage 2).

The final stage of the Textiles Product Stewardship Project for MfE is to provide a report on the "Recommendation of appropriate vehicle for Textiles Product Stewardship to set up and administer an accredited voluntary Product Stewardship Scheme for textiles in New Zealand". The purpose of this survey is to gather Industry opinion to inform recommendations to government.

Value chain and key activities

Achieving textile circularity requires action along the entire value chain to reduce waste, pollution and emissions. Decisions made in design and production have a ripple effect that contributes to how the purchaser acquires, uses, and disposes of their textiles, how the textiles may later be reused, and whether materials can be reclaimed and recycled to enter secondary markets. Research and development currently undertaken to establish scalable onshore solutions as alternatives to textile waste going to landfill requires ongoing development funding. New waste to value supply chains are required with appropriate expertise and infrastructure.

The key functions of the ecosystem / value chain have been split into questions across the four areas in the table below:

Design and production	 Design Finished goods manufacturing Pre-production excess handlers Raw material supply (fibre, fabric, trims and notions)
	Other

Distribution, use and disposal	 Brand stores and general retailers of apparel or textile products Importers Laundries and drycleaners Local authorities Purchasers (consumers and organisations) Waste management companies Wholesalers
End-of-life and recirculation	 Collectors, sorters and aggregators (material recovery) Logistics, haulage and storage Recirculators (repair, remakers, reuse) Recyclers, reprocessors and remanufacturers Resellers (charities and for-profits) Other
Value chain supporters	 Academic organisations Campaigning groups Charities Educators Iwi Policy creators Researchers Sustainability and circular economy consultants Trade associations Other

Funding model for Product Stewardship

Product Stewardship (PS) and Extended Producer Responsibility (EPR) are critical policy interventions that can support circularity by incentivising the coordinated, systemic change required. It involves creating schemes that help shift the costs of managing waste from ratepayers and taxpayers back to those who benefit from the product. This ensures the costs of waste get considered when design, production, distribution and use decisions are made. In this way, product stewardship schemes can contribute to both a reduction in waste and to better recovery of materials from the waste stream. Those who benefit from the product fund the scheme and activities that may have otherwise been funded by society in general through rates or taxes are funded by the scheme.

A scan of global stewardship contributions show a range of mechanisms and rates eg. France 0.0015 - 0.062 Euros per piece (NZD\$0.024 - \$0.10) depending on the type of product, with a flat rate per annum or rate per item basis. Sweden has calculated that the introduction of EPR will lead to a T-shirt becoming SEK 0.23 (NZD \$0.04) more expensive for consumers.

Product Stewardship Organisation (PSO)

The purpose of the Textile Product Stewardship Scheme is to provide a means to manage and reduce the long term environmental, economic and social impacts of end-of-life textiles, whilst minimising the cost to key stakeholders. The opportunity for increased regional resilience, industrial & commercial autonomy, economic and social opportunity and a revitalised industry could be catalysed through the implementation of a textile product stewardship scheme.

A PSO is the entity designated by representative stakeholders across the value chain to act on their behalf to administer the product stewardship scheme. PSOs are increasingly playing an important role in harmonising

industry sustainability and circularity goals, providing a mechanism which manages the material flows, and assisting industry in measuring and reporting on progress. A well designed scheme governed by a PSO can allow industry more autonomy to meet the obligations without having to take on the obligations individually. It allows for a whole-of-system approach that links up and integrates the individual participants tackling different parts of the supply chain to ensure efficiencies and scalable solutions.

A PSO can also take on the responsibility of the design of the scheme, and then move into more of a governance and management role once the scheme is operational. Once a scheme is operational, it is important that those with Officer positions are at arms reach from those who are key participants in the scheme. They may not benefit from the funds collected for participation in the programme, nor could they make use of the aggregated data for their own commercial or professional gains.

The following are the sorts of activities that may sit within the responsibility of a PSO:

- Ensure active and engaged representative stakeholders,
- Work with government on policy and regulation aspects
- Set and periodically review strategic plans and targets for the Product Stewardship Programme, ideally supported by a cost benefit analysis
- Brand building and marketing of the Textiles Product Stewardship Scheme
- Provide oversight of the programme on behalf of participants across the value chain
- Audit participants in terms of activity, impact measurement and progress towards the targets
- Receive aggregated product data and financial reports;
- Undertake analysis and reporting functions based on that data
- Manage the use of funds against the purpose, mission and vision of the programme
- Award and monitor commercial contracts and administer payments to participants registered with the programme performing activities that receive financial support from the fund.
- Work with advisory groups which may be set up from time to time for the betterment of the programme
- Detailed design of the Scheme including clear vision of what the environmental targets are and a coordinated means of obtaining these
- Establish and maintain a directory of the eco-system and who is in each part of it.
- Advocacy Industry/Govt Relationships
- Influence NZ regulation
- Education and Awareness Building across citizens and in organisations
- Certification

A key concern is often the privacy of sensitive information. A "Black Box" structure can be set up to receive in product declaration information from brand owners to enable accounting of fees / charges for participation in the programme. It is kept separate from the PSO; it can be involved with the internal structures and workings of the PSO, but the reverse cannot occur, the PSO cannot be involved with the internal structures and workings of the "Black Box" function. It reports only aggregated product data and financial information that does not identify the specific brand owner or product supplier. It is typically an accounting function and works under a contract arrangement.

Legal Structure of a Product Stewardship Organisation

The Waste Minimisation Act (WMA) does not specify a particular governance or legal structure for a product stewardship scheme whether voluntary or regulated. However, as part of the accreditation process, the responsible Minister will look at the programme to ensure that the governance, and if necessary, legal structure adopted is suitable for the *scheme's design and objectives*.

The legal entity-specific features include that the:

- scheme will be managed by a legally registered not for profit body (this includes an incorporated society (charitable or non-charitable), a charitable trust and a charitable company;
- board will be appointed through an open and transparent process;
- board needs to represent the interests of producers and consumers as informed by stakeholder advisory groups.

The PSO is the legal entity that owns and governs the stewardship programme on behalf of the value chain. The most appropriate legal options for a PSO for textiles in New Zealand are:

- Incorporated Society (not-for-profit by design; may or may not need charitable status)
- Charitable Trust
- Company with charitable status

1. Incorporated Society

An Incorporated Society is generally more structured. It can be incorporated under the Societies Act 2022 for certain protections for members and will have a set of rules or constitution under which the PSO operates. It:

- has a board of at least five members;
- has a membership of a minimum of 10 individuals or five corporate bodies such as other societies, charitable trusts or companies (each corporate body counts as three individuals), or a mix of both;
- can make profits and employ/contract providers but may not distribute profits to members; and
- has its income taxed although it may be eligible for a range of tax exemptions.

An incorporated society is a membership-based organisation that has registered under the Incorporated Societies Act 2022. To be able to register, the group must exist for some lawful purpose other than making a profit. By registering under the Act, the society becomes an incorporated body with a legal identity of its own, separate from the identity of its members. This means the society continues to exist as a legal entity (called "perpetual succession") even though its membership may change. It also means the society's members are not personally responsible for debts and other obligations that the society takes on.

The society's activities are limited by the Incorporated Societies Act and the rules the society adopts for itself. Usually an incorporated society's management committee and officers deal with the administration, management and control of the society.

If membership of an organisation is a necessary feature for stakeholders then an Incorporated society makes sense.

2. Charitable Trust

The alternative to an incorporated society as an industry body is a charitable trust. Charitable trusts are flexible vehicles and a membership programme could be incorporated into it in the future, or the initial document could provide for a membership programme which could be dormant until ignited in the future. Royal New Zealand Ballet, the Arts Foundation are charitable trusts with paid subscription memberships and rights attached to membership. Trusts can have AGMs and reporting obligations to members in a very similar way to an incorporated society.

- will have a trust deed under which the PSO operates;
- has at least two trustees must have charitable aims i.e. not be for private profit;
- must be registered with Charities Services to obtain or keep charitable tax-exempt status.

A trust is not an incorporated body and therefore does not have a separate legal identity. If the trustees are natural persons then they may incorporate themselves as a Charitable Trust Board to provide a means of protection to the individual trustees.

3. Charitable Company

A charitable company is an ordinary limited liability company that has been registered as a charity on the Department of Internal Affairs Charities Register, and is eligible to receive a tax exemption. In order to be registered as a charitable company on the Charities Register, the company must have exclusively charitable purposes. These charitable purposes must be set out in the company's constitution.

Charitable companies may be suitable for groups that:

- want the liability of shareholders to be limited.
- want more flexibility in decision-making (as decisions do not need to be made by all members as with an incorporated society).
- have some trading purpose.

Registering as a charity requires application to the Department of Internal Affairs Charities Services. The process is set out at the Charities' website here.

Detailed Scheme Design

One of the first key projects that needs to be undertaken under the guidance of the PSO is the detailed scheme design. The following list illustrates the sort of elements that need to be considered and may influence your views on what is the best entity to manage this work.

Scheme Design elements:

- Clear, manageable and measurable targets for example, targets for reduced consumption, increased collection rates, increased reuse, landfill diversion; reduced embodied carbon and water utilisation etc.
- Social aspects such as engagement with labour rights, modern slavery and ethical production, consumption and disposal can be supported through focused scheme design. How do we best support local social economies in the recirculation of clothing?
- Schemes should respect the waste hierarchy and prioritised reuse and resale ahead of recycling or
 downcycling ahead of reuse. Having said that, given the volume of unwanted textiles, reuse and resale will
 only go so far and at some point these products reach their end of usable life. Recognising the costs and
 timeframes required in the research and development of recycling solutions and the capital required for
 the necessary infrastructure is essential to meeting zero-waste targets.
- New business models focused on circularity that go beyond reliance on a volunteer workforce and support local social enterprise particularly in resale, re-use, repair, rental, recycling, re-processing, etc. Models that work at a local level and are replicable nationally to ensure cohesion and scale.
- Scheme design needs to consider appropriate investment for the R-strategies (Repair, Remakers, Reuse, Recyclers, Reprocessors and Remanufacturers) especially the initial investment in infrastructure. Logistics, haulage and storage
- The "professionalisation" of 'sorting' is important to the development of the reuse sector. This includes both the expertise on fashion, trends and materials, and the infrastructure for automation where possible.
- The service and product offering of the scheme can be diverse and target many different segments, from school children to technical innovators.
- Technologies to support circularity are a growing area of business innovation globally, ranging from traceability and transparency tools, consumer-facing apps, as well as textile recycling technologies.

• Components of the Scheme can be implemented over time and a roadmap is important to the development and broadening of the scheme's scope and activities.

Where to from here?

There is still significant work ahead. For example:

- Define the details of the Product Stewardship scheme with clear expectations for participation, defined targets, incentives to improve circularity and avoid free-riders.
- Define the approach to funding the scheme through levies or membership fees; (Tyrewise refers to an ADF Advanced disposal fee) and undertake a cost benefit analysis.
- Establish guidelines for the distribution of funding to contribute to the costs of the components required for circularity.

This work requires a dedicated focused set of expertise with appropriate funding. With the challenges experienced across Industry over the last couple of years, there is not enough resource to achieve this through working groups and part-time leadership.