

Productivity Commission interim report

# Australia's circular economy

## The Seamless response

The Productivity Commission has released its interim report, "Unlocking the opportunities from Australia's circular economy". The report notes that Australia's progress towards a circular economy has been slow, with materials productivity, the national circularity rate (that is, the proportion of non-virgin or recycled materials used, compared to materials used overall) and resource recovery rate increasing marginally over the past decade. Australia's circularity rate of 4.6% was half the global average, which reinforces the need for the Federal Government's targets outlined in Australia's Circular Economy Framework, including the goal to double Australia's circularity rate by 2035.

The interim report provides a balanced view based on the initial consultations, which will be supplemented by this additional round of consultation. The final report will lay a strong foundation for advancing Australia's circular economy agenda, with a focus on aligning the efforts of industry and government and taking a collaborative co-ordinated national approach through product stewardship.

## Seamless, Australia's clothing stewardship scheme

Clothing Stewardship Australia Ltd administers [Seamless](#), Australia's clothing stewardship scheme, which aims to make Australian clothing circular by 2030, and significantly reduce the 222,000 tonnes of clothing that goes to Australian landfill each year.

We help Australians choose, enjoy and recycle clothing more consciously, by working with clothing brands, retailers and key stakeholders, so people and nature thrive. With over 55 clothing brands registered as stewards, and more than 180 registered supporter organisations across the value chain, we are building a critical mass for collective progress. We believe the transition to circularity is a shared responsibility. Achieving sustainable production and consumption of clothing and creating nature positive outcomes requires collaboration enhanced by an industry-informed regulated approach.

Seamless has been actively engaging with the Commissioners through the process and shares feedback in this response which addresses the information request **6.3: Textiles and clothing product stewardship schemes**. As the Commission's findings will inform policy strengthening Australian circular economy, our response calls for firm direction on textiles and clothing product stewardship.

# Seamless feedback

Our feedback relates to the information request tabled by the Productivity Commission as part of the interim report consultation period and is specific to product stewardship. Our response has been informed by our experience and direct feedback from Seamless members, supporters and the broader industry.



This enquiry is an opportunity to help the clothing industry embrace a future that supports innovation from the outset, rewards sustainable business models and enables national recirculation of valuable materials that deliver better environmental, social and economic outcomes.

## The role of product stewardship

The Australian Government plays a significant role in providing national leadership and co-ordinating product stewardship schemes. The interim report recaps the three product stewardship models provided for in the Recycling and Waste Reduction Act 2020 (Cth) which are: industry-led voluntary schemes; co-regulatory arrangements between industry and government; and mandatory schemes.

The report also acknowledges international best practice with mandatory Extended Producer Responsibility (EPR) schemes in France and the Netherlands achieving outcomes such as higher textile collection and recycling rates.

Seamless, Australia's clothing product stewardship scheme, is an industry-led, voluntary initiative which commenced operations on 1 July 2024. With the Federal Government already committing funding to Seamless and signalling its willingness to regulate, the industry must prepare for a future where all clothing brands take responsibility for the entire life of the products they place on the Australian market. The whole industry must prepare to contribute proportionally to driving circularity and diverting clothes from landfill, not just the few responsible brands leading the charge.

**"Regulation is the best solution for ensuring high levels of industry investment and participation."**

**Product Stewardship Centre of Excellence**

The opportunities outlined in the interim report largely align with the Seamless strategic priorities, which are citizen behaviour change, circular design, circular business models and closing the loop through reuse and recycling. As part of our workplan, we're actively progressing some of the opportunities identified and encouraging greater policy and regulatory intervention, which is necessary to enable transformative, intergenerational change.

## Value of increased participation in product stewardship schemes

### Environmental, social and economic impacts

Adopting a more holistic approach to circularity will deliver positive environmental and human health, as well as social (human wellbeing) impacts, while enabling economic benefits. For the clothing industry, this would include outcomes such as increased local employment, enhanced community cohesion and economic stability for supply chains through increased living wages and greater transparency of workplace conditions.

Seamless [clothing benchmarking data](#) notes that 222,000 tonnes of clothing was sent to Australian landfill in 2023. The benefits of diverting this clothing from landfill by 2030, doubling the rate of circular business models in use and doubling clothing reuse and recycling, have been broadly extrapolated and presented below. These data points will be further validated as the scheme evolves:

1. **Reduced landfill costs:** Diverting 222,000 tonnes of clothing from Australian landfill could conservatively equate to savings of at least AUD\$30 million per annum in disposal fees.
2. **Job creation:** [Evidence from Europe](#) shows that around 20 jobs can be created per 1,000 tonnes of used textiles collected and sorted for reuse and recycling. This would equate to over 4,000 new jobs in recirculating resources by 2030. In 2022, the [Australian Fashion Council](#) found that moving to a fully circular economy for fashion and textiles could result in large productivity gains in both metropolitan and regional Australia, with estimates of 86,000 additional jobs (including over 66,000 jobs for women).
3. **Secondary market expansion:** Doubling the number of garments in circulation could increase revenue in the secondary market (captured by thrift stores, consignment shops, online marketplaces and clothing charities) beyond \$2 billion per year by 2030. This estimate is supported by ThredUp's 2025 [Global Resale Report](#) which found that the secondary apparel market is growing 2.7 times faster than the overall global apparel market.
4. **Rental revenues:** With greater consumer acceptance of renting outfits for special occasions or everyday wear, doubling circulation could accelerate clothing rental revenues into the hundreds of millions of dollars annually in Australia. The [clothing rental sector is projected by UNSW](#) to reach approximately \$3 billion in Australia by the middle of the decade.
5. **Place-based care and repair economics:** While harder to quantify, a cultural shift to repurposing and repairing clothing, projecting even a modest uptake could inject tens of millions of dollars into local tailoring, repair and textile care services.

6. **Resource recovery benefits:** Although an evidence base through trials has not yet been completed, the market value of recovered resources could be substantial. For example, France's textile EPR program Refashion collected over 260,000 tonnes of clothing for recycling in 2022 and is financed by €52.7 million (AUD ~\$108 million) in producer contributions annually ([P1552 Textiles Waste in Australia](#)) – funds which help support sorting and recycling operations. As a rough illustration: if recycled textiles fetch \$500 per tonne on average, then 222,000 tonnes could generate ±\$111 million in resource recovery revenue. Developing an appropriately scaled domestic textile recycling capacity will deliver tens of millions of dollars in recycling related innovation investment.
7. **Cost-of-living opportunities:** Through normalising reuse and doubling the use phase of clothing (through investing in longer-lasting garments, second-hand clothing and clothing rentals), Australians can refresh their wardrobes while purchasing fewer new items annually. This translates to savings of roughly \$4 billion nationally for Australia's population of 26 million people, if new consumption trended at 25 new items per year per person, rather than at the current rate of 53 new items per year as reported in the Seamless [clothing benchmarking data](#).

Additionally, [UK research by WRAP](#) found that extending the life of clothing by just 9 months would save £5 billion in costs related to supply, laundering, and disposal. Using this model, with Australia's population at approximately 40% of the UK's, at least \$3 billion could be avoided with a comparable extension of garment life.
8. **Avoided carbon emissions:** Life cycle assessment research is current underway by Seamless to quantify the clothing sector footprint and identify opportunities for emission reduction. This data will be available by 30 June 2025.
9. **Resource efficiency gains:** Keeping 222,000 tonnes of clothing in circulation means reduced demand for virgin resources like cotton, wool, and polyester. This can lead to water and energy savings as well as decreased impacts from land use. While currently not estimated, these resource savings improve environmental resilience and lower the demand for virgin resource inputs, enhancing the embedded value of textiles.
10. **Optimising landfill capacity:** Reducing the 222,000 tonnes of clothing currently going to landfill will deliver long-term economic value for Local Government with deferred capital expenditure and controlled operational costs. Moreover, from an environmental perspective, decomposing organic fibres in landfill can emit greenhouse gases, and synthetic fibres persist indefinitely, leaching microplastics – an emerging risk requiring further research.

# Opportunities for greater circularity in clothing and textiles

## 1. Shift to a whole of life stewardship approach

Seamless strongly advocates for a shift in the scope of stewardship toward a whole-of-life approach. Through the design stage of Seamless, global insights from existing EPR regulation and domestic schemes pointed to the critical need for circularity to be a founding principle. For schemes to better align and deliver on circular economy principles, liable parties need to be held accountable for their products throughout every stage – from the design, manufacturing and use phases, through to recycling at end-of-life.

This whole-of-life approach encourages more sustainable product design; promotes renewable, recyclable and safe products from the outset; provides for increased durability; and stimulates better business models. For clothing, these circular business models include rental, recommerce and where appropriate, repair. This approach increases resource efficiency and targets action further up the hierarchy of use.

## 2. Regulate product design standards and labelling

Seamless supports regulated product and material design standards. This is the most effective way to minimise the footprint of products, as over 70% of their overall environmental impact, including emissions, is determined during design<sup>1</sup>. Design stage intervention is also a core recommendation from the Circular Economy Ministerial Advisory Group report, [Circular Advantage](#), and circular design is a Seamless priority.

With respect to the Commission's reform direction 6.1, Seamless recommends that product labelling be progressed as an element of circular design, made possible through the whole of life product stewardship scheme. This integrates into the transition pathways to circularity which will be facilitated, measured and monitored by existing schemes, with no additional governance structures required. This can help to limit additional reporting burdens on industry, with implementation rewarded through eco-modulation<sup>2</sup>.

All Australians deserve access to reliable and relevant information. As mechanisms are put in place to ensure that this occurs, it is essential that a user-first experience is front of mind. This will ensure communications about how to manage household resources are clear, simple and consistent across the range of relevant products, including clothing and textiles. With more than 100 product stewardship schemes already in place, integrated user-first communications to households are critical to avoid confusion and fatigue.

These outcomes start by aligning industry, a role well suited to product stewardship schemes that act as transition brokers. [Seamless working groups](#) include experts from across the clothing industry collaborating on topics including eco-modulation, and a [standard taxonomy of terms](#). Establishing common language and reporting for the Australian clothing sector underpins improved awareness, data collection and contribution to national indicators which measure circular economy progress, and support decision-making and investment strategies. These initiatives will also help increase citizen awareness and better circular design.

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<sup>1</sup> Source: European Commission's 2015 report, "Closing the Loop – An EU Action Plan for the Circular Economy."

<sup>2</sup> [Seamless Eco-modulation](#): A mechanism to encourage sustainable practices among clothing brands by adjusting their financial contributions based on the environmental attributes of their products. Specifically, it involves reducing the per-garment levy by 25%.

## Recommended government interventions

### 3. Ensure global alignment including reclassifying waste as a resource

Aligning with international circular economy legislative trends will strengthen Australia's global competitiveness and ensure best practice across the entire product lifecycle. Additional benefits include reduced emissions and environmental impact, along with enhanced productivity with continuous improvement being actively rewarded through eco-modulation.

This alignment may enhance trade relationships and market access with key partners like the EU, the UK, the USA and Canada, where EPR schemes, design standards, [variable fee structures](#) and sustainability regulations are currently, or soon to be, mandatory.

Policy and regulatory consistency globally also ensures that Australian companies operating internationally can compete fairly through the adoption of globally recognised reporting and accountability measures. In the future, this alignment will assist in managing free riders<sup>3</sup> and market distortions from non-compliant operators. The risk in not taking this approach is that Australia may become a highly attractive market for off-loading poor quality or non-compliant products.

A further recommendation is the reclassification of waste as a resource. Adopting "resource" terminology rather than "waste" terminology in legislation and policy will help to drive sustainable resource management and a circular economy. This shift emphasises the inherent value in materials and promotes reuse and reintegration into production cycles. Countries like Japan have pioneered this approach.

### 4. Mandate participation in national industry-led accredited arrangements

Seamless strongly recommends the introduction of a structured, tiered approach to require mandatory participation in industry-led, accredited product stewardship schemes where problematic products have been listed on the Minister's Priority List for a minimum period of two years, and the scheme has been operational for no less than 12 months.

This new addition as a transitional requirement in the regulatory framework will:

- Reduce industry uncertainty by providing clear compliance expectations
- Ensure fair market conditions to allow businesses and liable parties of all sizes to compete and transition to a circular economy effectively
- Motivate and fund innovation and progress in resource efficiency and diversion from landfill
- Create equity and financial sustainability to initiatives that deliver on agreed environmental impacts

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<sup>3</sup> Free-riders are businesses or organisations that may benefit from a product stewardship activity without contributing to its implementation or operation. Taylor Bridges and Nick Florin (September 2021), ["Overcoming Free-Riders: Strategies to maximise industry participation"](#), Product Stewardship Centre of Excellence



A level playing field is critical for the Australian clothing sector which is dominated by a few large industry players. Regulations must be designed to ensure fair competition with no unwarranted advantage to non-compliant parties, from large industry players to direct-to-consumer sellers. Known as free riders, these non-compliant parties who have not accepted responsibility for their products, have significant negative effects on schemes as cited by numerous sources including the Australian Product Stewardship Centre of Excellence<sup>4</sup>, the OECD<sup>5</sup> and the Canadian Government<sup>6</sup>. With clothing an industry of over 14,000 liable parties, a level of regulatory intervention is necessary to secure participation.

The interim report refers to the effectiveness of government accreditation of schemes. The intent of government accreditation is to ensure environmental performance is delivered and Australian businesses and citizens have confidence in voluntary industry led schemes. As the interim report states, there is no evidence to suggest that accreditation drives increased participation and subsequently reduces free riding.

In introducing this proposed new regulatory option, it is recommended that the same level of transparency, frequency of performance reporting and auditing be required for all industry-led mandatory schemes. Moreover, through scheme reporting requirements, stewardship schemes may recommend exceptions where the Minister could request further reporting from liable parties. Schemes could also be required to maintain an electronic register of producers, as well as a mechanism allowing known free riders to be listed. By adopting mandatory participation in industry-led schemes, the administrative burden on government can be shifted to industry, with government instead focused on enforcement to ensure compliance.

In terms of compliance, government could require non-participants (free riders) to show participation in a program delivering equivalent outcomes and transparency within a specified timeframe. It is suggested that minimum financial penalties be set at the equivalent contribution to a relevant industry-led scheme; with a multiplier imposed for recurrent non-participants unable to demonstrate equivalence or any material progress since the previous penalty was imposed.

## **5. Address anti-competitive behaviour from free riders**

As noted in the initial submission to the Commission by the Woolworths group; "The reluctance of several dominant clothing manufacturers, brand owners and importers to participate is a threat to viable circular solutions because they may be adopting a 'free rider' strategy. For discount clothing retailers, who are characterised by low price and high-volume sales, the importance of creating a level playing is critical. The levies associated with [scheme] membership put participating businesses at a significant cost disadvantage."

Seamless is very supportive of free-rider behaviour being recognised as anti-competitive behaviour under the Australian Competition and Consumer Act.

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<sup>4</sup> Taylor Bridges and Nick Florin (September 2021), "[Overcoming Free-Riders: Strategies to maximise industry participation](#)", Product Stewardship Centre of Excellence

<sup>5</sup> Hilton, M. et al. (2019), "[Extended Producer Responsibility \(EPR\) and the Impact of Online Sales](#)", OECD Environment Working Papers, No. 142, OECD Publishing, Paris

<sup>6</sup> Marbek Resource Consultants for the Canadian Council of Ministers of the Environment (2007) "[Analysis of the Free-Rider Issue in Extended Producer Responsibility Programs](#)"

## **6. Implement procurement policy to drive circularity**

Implementing government procurement policy that prioritises circular design and requires whole of life plans for products such as uniforms and textiles is critical. This will stimulate demand for renewable and appropriate recycled content and reprocessed materials. By embedding circular economy principles into procurement policies, governments can drive market confidence, scale demand for responsible products and providers, and support industry transition.

## **7. Expand the Environmentally Sustainable Procurement Policy (ESPP)**

Expanding the ESPP to apply beyond Federal Government to all tiers of government, will provide certainty in demand and specifications, ensuring that businesses have clear guidelines for circular product requirements. This can be achieved with a carefully staged horizon for implementation at State and Local Government level. The [‘Recycled First’](#) initiative in Victoria is a strong example of how government purchasing power can stimulate market demand for recycled content.

## **8. Introduce incentives and co-investment in processing infrastructure**

Introducing incentives and co-investment strategies for sorting, decommissioning and recycling infrastructure – ensuring investments are proportionate to economically viable end-markets – is critical. By improving processing capabilities, Australia can reduce our reliance on virgin materials and create new economic opportunities for resource recovery, and for products that follow circular design principles. Targeted government investment would also help mitigate financial barriers for industry, enabling greater innovation, efficiency, and domestic competitiveness in remanufacturing, material reuse and resource recovery.

## **9. Provide support during stewardship scheme establishment**

Ensuring that stewardship schemes are well supported in their establishment phases will maximise their potential for long-term success. Scheme start-up costs extend beyond general operating expenses, with significant reserves required for the establishment of collection, sorting, decommissioning and recycling infrastructure. Furthermore, investing in reporting technology and systems is essential for adequate tracking of commercially sensitive information as well as data analytics over time.

For product stewardship schemes to achieve their mission to strengthen Australia's global competitiveness and ensure our nation is at the forefront of the shift to circularity, schemes need to be established in line with current best practice and adequately resourced. Providing support during a scheme's transition phase, not only through regulation, but also through funding, process certainty, and access to expertise from organisations such as the Product Stewardship Centre of Excellence, is critical.



## 10. Foster effective collaboration

Coordinated efforts across all tiers of government to align policies and state-level activities will provide industry with the certainty required to improve resource recovery. It gives the private sector the confidence to invest in infrastructure and innovation. For the value chain, it will help eliminate conflicting regulations and operating inefficiencies for businesses working across multiple jurisdictions.

Stewardship schemes also need to coordinate on shared opportunities like reverse logistics, activating circular precincts, data management, and citizen education. The latter will help citizens to more easily understand how to manage problematic products, so that Australians choose, enjoy and recycle their clothing more responsibly alongside other products such as batteries, mattresses and more. Stewardship schemes that are established as independent, not-for-profit entities are best placed to act in the role of transition brokers and to be the central point for a network governance arrangement.

The Seamless [State and Territory Government roundtable](#) effectively fosters connection and co-ordination on policy, programs and investment to divert clothing from landfill. At the Federal Government level, Seamless has provided [input into the Recycling and Waste Reduction Act 2020](#) (RAWR Act) review, as well as the Environmentally Sustainable Procurement Policy which will apply to clothing and textiles from 1 July 2025.

## Industry feedback

To assist in responding to information request 6.3, Seamless undertook a survey of members, supporters and industry stakeholders. Over the period of 12 days in April 2025, responses were received from 72 individuals, 47% of which were Seamless members or supporters.

### Reasons for joining Seamless

The top five reasons for joining Seamless were to:

1. Demonstrate our commitment to a positive circular future (40% of respondents)
2. Position our organisation as a sustainability and circularity industry leader (39% of respondents)
3. Gain opportunities to learn from and partner with like-minded organisations (35% of respondents)
4. Leverage economies of scale through collaboration on shared challenges (32% of respondents)
5. Gain access to resources and support to enhance our sustainability efforts (32% of respondents)

On the whole, businesses indicated that being part of Seamless demonstrates commitment to a positive circular future, reinforcing long-term, meaningful change within the industry.

### Opportunities to increase uptake

Seamless explored mechanisms to increase industry buy-in into the scheme, ensuring widespread participation while delivering measurable benefits to businesses and the environment. The following were the top suggestions from industry as clear pathways to enhance participation and demonstrate the tangible benefits of involvement:

1. **Regulations to enforce mandatory participation:** 64% of respondents advocated for implementing regulations that enforce mandatory participation in Seamless as an industry-led scheme to ensure that all businesses are held accountable for their role in the product lifecycle. This approach ensures a level playing field, leading to a more comprehensive and impactful circular economy.
2. **Offer reward, recognition, or certifications for progress:** 58% of respondents agreed that providing incentives for organisations that demonstrate significant progress in their sustainability efforts is a strong motivational driver. Public recognition can serve as a competitive advantage, positioning companies as leaders in sustainability and circularity.
3. **Access to more collaboration opportunities:** 57% of respondents agreed that offering collaboration opportunities with key industry players through trials and pilots will encourage members to test innovative approaches to circularity. This de-risked environment enables further buy-in through practical experience, embedding continuous improvement and stimulating organisational change.

4. **Policy interventions such as government procurement:** 53% of respondents agreed that introducing policy for clothing and uniform procurement can create commercial incentives for businesses to join the scheme owing to the demand signal for more circular products and responsible lifecycle practices.
5. **Clear evidence of tangible return on investment:** 53% of respondents agreed that providing clear metrics that the scheme delivers cost savings and other medium-term benefits will help demonstrate the value of participation. This includes showcasing how engaging with the scheme can lead to improved efficiencies, business resilience, social impact and increased customer value.

## Feedback on experience to date

91% of Seamless members that responded to the survey indicated that Seamless meets or exceeds their expectations. Specifically, 55% of Seamless members indicated that Seamless meets expectations, and 36% indicated that expectations were often exceeded or far exceeded.

Qualitative feedback provides insight into how expectations are being met, as well as where there is opportunity for improvement. In summary, members are eager to see mandatory membership and policy measures implemented to drive industry-wide change, more opportunities for smaller businesses, expanded resources for Seamless, and an increased focus on clothing reuse and recycling.

A summary of the qualitative feedback that was shared has been provided below.

- **Strategic direction:** Members expressed appreciation for the clear roadmap and four strategic priorities provided by Seamless. One member noted, "It has been really helpful to have a committed roadmap to follow rather than having to do the investigative work ourselves. This has enabled our business to focus on the solutions."
- **Positive momentum and need for mandated participation:** There is a positive outlook on the momentum Seamless is building in certain segments of the industry, with members acknowledging the benefits of collaboration. The appetite for mandatory participation and policy intervention is growing, as it would help accelerate progress and ensure broader and more equitable participation. As one member stated, "Compulsory membership and policy measures being put into place will accelerate momentum." Members felt that regulatory measures will strengthen the scheme and expand its reach.
- **Communication and networking opportunities:** Members valued the opportunities for collaboration within the Seamless network. One member shared, "It's great to have an organisation coordinating activity in this space with such enthusiastic and capable staff." There is a clear desire for more accessible communication platforms and networking opportunities to connect with like-minded businesses and tackle common challenges. While these efforts are already underway, improvements in engagement and member connectivity will help foster a stronger sense of community.

- **Challenges for small businesses:** There is concern about the viability of small businesses, especially those producing locally. One member said, "As a small business owner producing locally, reducing our carbon footprint and ticking all the boxes but sales is not sustainable for a living." Additionally, small businesses face limited manufacturing capacity, with many fighting for the same manufacturers who cannot meet growing demand "I would love to see the government support some of the small businesses by marketing and promoting them." Members are calling for government support in promoting these businesses and developing local facilities.
- **Action on reuse, repurposing, and recycling:** Members are optimistic about future progress and noted the impact Seamless is having. There is a strong desire for action on reuse, repurposing, and recycling. One member stated, "We were hoping to see more immediate upfront action and support for the reuse/repurposing/recycling side of the cycle."
- **Positive feedback on Seamless team efforts:** Overall, members have been positive about the work of the Seamless team, especially during the scheme set-up phase. As one member noted, "The small but mighty team are doing a great job." However, there is a desire for more resources to help the team scale as membership grows. This will enable Seamless to further expand its impact.

# Summary of recommendations

There is a significant opportunity to help the Australian clothing industry embrace a future that supports innovation from the outset, rewards sustainable business models and enables national recirculation of valuable materials that deliver better environmental, social and economic outcomes.



Below is a summary of the key recommendations from Seamless in response to the Productivity Commission's interim report, "Unlocking the opportunities from Australia's circular economy".

1. Adopt a whole of life stewardship approach
2. Regulate product design standards and labelling through existing stewardship schemes
3. Ensure global alignment on circular economy directions including reclassifying waste as a resource
4. Reform direction 6.2 to mandate participation in national industry-led accredited schemes. This approach will provide a staged transition towards achieving the circular economy goals while allowing sufficient time for effective collaboration, transparency, and industry buy-in.
5. Address anti-competitive behaviour from free riders
6. Implement procurement policy to drive circularity
7. Expand the Environmentally Sustainable Procurement Policy (ESPP) to all tiers of government
8. Introduce incentives and co-investment in processing infrastructure
9. Provide support during stewardship scheme establishment
10. Foster effective collaboration across all tiers of government