Roadmap to clothing circularity

The vision and pathway for a just transition to a circular clothing economy in Australia by 2030, and Net Zero by 2050

Led by:

AUSTRALIAN FASHION COUNCIL

In consortium with:

Charitable Recycling Australia

SRU Sustainable Resource Use

QUT Queensland University of Technology

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In the spirit of reconciliation, we acknowledge the Traditional Custodians of Country throughout Australia and their ongoing connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all First Nations peoples.

In Australia, we have the privilege of learning from incredible First Nations design traditions. First Nations people have been creating clothing for millennia with a focus on circular principles. As we move forward on this journey towards circularity in our industry, we are committed to learning from the way things have always been done by First Nations creators in this Country.

Cover image: Nobody Denim
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Acknowledgements

Roadmap, Milestone 3.4 for the National Clothing Product Stewardship Scheme (Seamless)

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This Roadmap has been written by the National Clothing Product Stewardship Scheme Consortium (the Consortium), led by the Australian Fashion Council (AFC), with Charitable Recycling Australia, Queensland University of Technology (QUT), Sustainable Resource Use (SRU), and WRAP Asia Pacific.

This Roadmap forms one of a number of key consortium outputs, alongside the Global Scan Report, the Clothing Data Report and the Scheme Design Summary Report which will inform the future work of the Product Stewardship Organisation (PSO) as well as the Seamless members who will take this work forward from 2024.

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Creating a sustainable future for the Australian clothing industry

On average, every Australian buys 56 items of clothing yearly, most of which are made from non-sustainable, non-durable materials that eventually end up in landfill.

In late 2022, the Australian Federal Government shared a vision and commitment to transition Australia to a circular economy by 2030 and Net Zero by 2050.

In order to achieve circularity by 2030, the Australian clothing industry needs to fundamentally transform the way clothing is designed, produced, consumed and disposed of, both locally and on a global scale.

This significant transformation will require courage, creativity and collaboration. Key industry stakeholders, including government and leaders across the clothing value chain, will need to work together to drive innovation and achieve what no single organisation can do alone.

The Roadmap to Clothing Circularity will guide a just transition of the Australian clothing industry to circularity by 2030.

Image: Helen Kaminski

Why a roadmap?

- **Informs and educates** all stakeholders across the clothing value chain - from design to end of life - including primary industry, clothing brands and retailers, charities, recyclers, all levels of government, and citizens.
- **Inspires businesses and citizens to act quickly**, and encourages urgent action by government, investors, organisations and other key stakeholders.
- **Reveals the wardrobe of the future** which represents responsible stewardship and citizenship, from clothing design and production, through to consumption and recirculation.
- **Aligns with Australia's goals** to achieve a circular economy by 2030, progresses the commitment to the Paris Agreement to achieve Net Zero by 2050, and sets Australia on the path to meeting United Nations Sustainable Development Goals.

Image: Liza Summer, Pexels

Guiding principles

The five guiding principles of this roadmap are:

AUSTRALIAN
Uses Australia's unique strengths to build a future for the clothing industry that has a focused national perspective and global relevance.

VISIONARY
Offers a bold vision for the future, designed to inform and inspire. It is optimistic, evidence-based and solutions focused.

ADAPTABLE
Incorporates review points so that more specific, deadline driven metrics can be iterated and updated. It is responsive to new knowledge and external environmental influences.

JUST
Acknowledges that any transformation needs to be inclusive, considered and have a net-positive impact on people, planet and profit.

COLLECTIVE
Understands that collective action is required to achieve circularity and provides a framework for stakeholders to collaborate to enable change.

The current state: take, make, dispose

The Australian clothing industry manufactures and imports over 1.4 billion units of new clothing into Australia every year, more than half of which will end up in landfill.

Clothing waste has become one of the largest contributors to Australia's waste crisis, with more than 200,000 tonnes of clothing ending up in Australian landfill every year.

Australia has no systematic mechanism for the collection of unwearable clothing, and almost no clothing and textiles reprocessing infrastructure on a national scale. Our reuse and resale sectors are overwhelmed with unwearable donations costing millions of dollars in sorting and landfill fees.

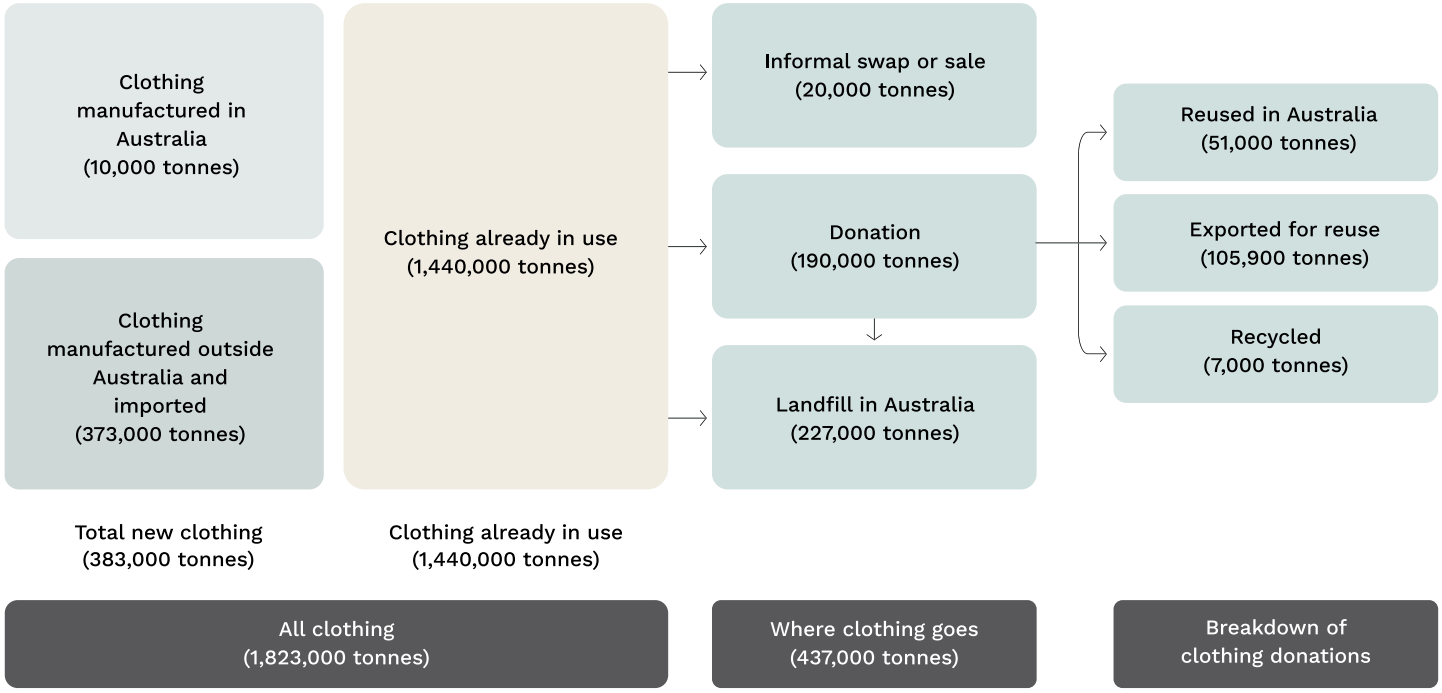

Figure 1: Flow of clothing in Australia per year by weight

A Seamless approach

No single individual, organisation or government can transition from a linear model to a circular one alone.

That's why the Australian Government funded a consortium to develop Seamless, a National Clothing Product Stewardship Scheme ("the scheme") to initiate a systematic and seismic change across the clothing value chain with industry-wide collaboration. The consortium was led by the Australian Fashion Council and included Charitable Recycling Australia, Sustainable Resource Use, Queensland University of Technology and WRAP Asia Pacific.

This world leading initiative aims to improve the design, recovery, reuse and recycling of clothing in Australia, providing a roadmap to circularity by 2030.

By transforming outdated business models, driving innovation, changing citizen behaviour and recirculating clothing in high value applications, the Australian clothing industry has the potential to become a circular economy leader, setting an example to other industries locally and globally.

This roadmap positions Seamless as the principle enabler to achieving clothing circularity in Australia by 2030.

Read the Seamless Design Summary Report for more information.

Seamless priorities

The funds raised as part of the scheme will be administered by an independent Product Stewardship Organisation (PSO) that will develop the market for circularity by investing in four priority areas:

1. **CIRCULAR DESIGN**
   Incentivising clothing design that is more durable, repairable, sustainable, and recyclable.
2. **CIRCULAR BUSINESS MODELS**
   Scaling new revenue models for reuse, repair, remanufacturing, rental, and other services that prolong the life of clothing and create new value while lowering resource use.
3. **CLOSING THE LOOP**
   Significantly expanding existing clothing collection and sorting practices for effective reuse, and enabling clothing to be recycled into new high-value products and materials.
4. **CITIZEN BEHAVIOUR CHANGE**
   Encouraging responsible practice around clothing acquisition, use, care, and disposal.

Figure 2: Seamless priority areas

Image: Engin Akyurt, Pexels

Stakeholders

The transition to a circular economy requires action and collaboration from all stakeholders across the clothing value chain.

STAKEHOLDERS	ROLE IN THE TRANSITION TO A CIRCULAR ECONOMY
Stewards (clothing brands and retailers)	Stewards will play a leading role as designers and manufacturers of the garments that are entering the market. They can drive change through their own actions and partnerships, can also create the market for circular practices, and influence the use and disposal pathways for clothing. Seamless is funded by a financial contribution (levy) paid by member stewards on each new item of clothing they place on the market.
Reuse operators	Reuse operators host most of the clothing recirculation activities in Australia and will continue to play a vital role in scaling and supporting new business models for reuse. They can also improve the collection and sorting of clothing, significantly increasing reuse and recycling into new high-value products.
Manufacturers and re-manufacturers	Manufacturers and re-manufacturers can help unlock new circular pathways and infrastructure to make or remake clothing and create markets for recycled content.
Recyclers	Recyclers can affect broad changes in the industry by collaborating with stewards and reuse operators to scale efforts to reprocess unwearable clothing material into feedstock for new products or materials. Initially, some clothing recycling will be to lower value outcomes such as rags and stuffing. Over time, higher value recycling, such as new garment production, is expected to increase.
Product Stewardship Organisation (PSO)	The PSO is responsible for managing the Seamless scheme and coordinating activities with members and other stakeholders from the clothing supply chain. It will facilitate cross-industry collaboration and disseminate findings from scheme activities.
Industry experts and academia	Educational and academic institutions will lead research projects and share insights on circularity innovations and best practice. They are uniquely placed to teach and uphold circular clothing principles, inspiring a new generation of clothing citizenship and responsible practice.
Government	Policymakers can set the direction for the transition to a circular economy and help to create the conditions for change. Local, State, Territory and Federal Government organisations all have a unique role to play to facilitate the collection and sorting infrastructure, amplify the shifts required to change citizen behaviour, and penalise or incentivise stewards and other key stakeholders as required.
Citizens	Citizens are users and consumers of clothing in Australia. They have a collective ability to create behaviour change within businesses, communities and across society. Practising clothing citizenship means transforming the relationship to clothing to one which is more considered and which sees clothing in active use for longer.

Clothing circularity by 2030

The Australian clothing industry can collaboratively reimagine its future and achieve clothing circularity by 2030.

A circular clothing industry in Australia is one where responsible stewardship and citizenship are embedded across the lifecycle from clothing design and production, through to consumption and recirculation by focusing on four priority areas:

CIRCULAR DESIGN - designing, developing and making clothing differently.

CIRCULAR BUSINESS MODELS - rethinking how citizens acquire their clothing.

CLOSING THE LOOP - transforming how clothes are collected, sorted and recycled at the end of life.

CITIZEN BEHAVIOUR CHANGE - changing the way we think about and engage with clothing.

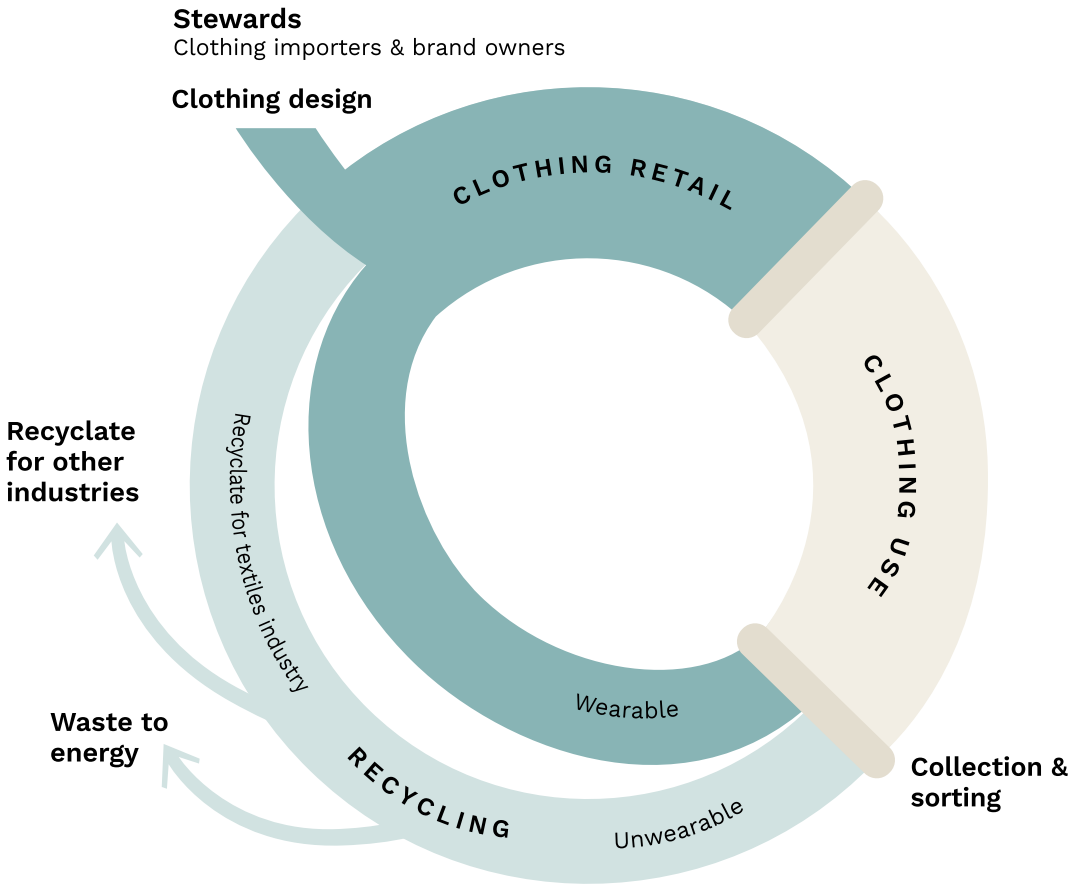

Figure 3: Circular clothing lifecycle

The roadmap

JUNE 2023 – DEC 2024	JAN 2025 – DEC 2026	JAN 2027 – DEC 2029	2030: CLOTHING CIRCULARITY
SET THE FOUNDATION Transition phase which results in the establishment and operation of Seamless by end 2024	**BUILD THE BUSINESS CASE** By end 2025, 60% of clothing and retail brands operating in Australia are Seamless members	**LEARN, ADJUST AND SCALE** By end 2027, 80% of clothing and retail brands operating in Australia are Seamless members	**CLOTHING CIRCULARITY IS BUSINESS AS USUAL** 100% of clothing and retail brands operating in Australia are Seamless members
CIRCULAR DESIGN Clothing brands adopt circular design principles that encourage greater durability, recyclability and use of preferred fibres and recycled content in garments, while also minimising waste in manufacturing (see page 11 for the full suite of circular design activities)			All clothing is designed with circular principles Brands act as stewards Focus on quality over quantity
CIRCULAR BUSINESS MODELS Reuse operators, brands, retailers and recyclers work together to increase the capability and capacity of the reuse sector to collect, sort, repair and sell more reused clothing, and to introduce new profitable circular business models (see page 14 for the full suite of circular business model activities)			Thriving reuse sector and new resale, rental and repair business models are in place
CLOSING THE LOOP Drive new infrastructure for recycled content by engaging stewards and citizens to create demand, and support stakeholders to collect, sort and reprocess wearable and unwearable clothing. Also work with the recycling sector to help underwrite new capacity (see page 17 for the full suite of activities to close the loop)			Most clothing diverted from landfill at end of life High value recycling facilities scaled, including fibre to fibre Increased collection of wearable and unwearable clothing A thriving manufacturing and remanufacturing industry
CITIZEN BEHAVIOUR Citizens are encouraged to reduce clothing consumption and increase repair and care for clothing through national campaigns. Stewards encourage their customers to behave in a manner that supports sustainability and circularity.			New clothing consumption is reduced Consumers change their practices to better care for clothing, and repair and reuse it

REVIEW ROADMAP → MEASURE IMPACT →

1 Circular design

The first key priority for the roadmap to clothing circularity by 2030 is circular design, that is, how to design, develop and produce clothing differently.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

ACTIVITY MAP

The following activity map shows the actions and timeframes that need to be met to achieve circular clothing design by 2030, as well as the stakeholder groups that need to be involved.

2025 - 2026

- Indigenous perspectives integrated into circular design guidelines, pilots and partnerships.
- Circular design guidelines published, informed by insights from reuse and recycling sector. Learnings inform scheme eco-modulation strategy and quantity of eco-modulated products is increasing.
- Circular design guidelines rolled out and product design teams upskilled. Collaboration with manufacturers supports and informs development.
- Social and environmental impact of design choices and preferred fibres measured. Environmental footprint reduction targets set, including for carbon and water.
- Production waste addressed through pilots and case studies on circular pattern making and other zero-waste design initiatives.
- Priority product categories identified to apply recycled content targets and recyclable design criteria.

2027 - 2029

- Circular design guidelines revised to strengthen standards over time, including a review on new technologies, innovations and end of life pathways.
- Many market segments offer durable and recyclable clothing, making these choices accessible to most citizens.
- Trials with government accelerate circular design in procurement.
- Non-renewable fibres phased out of core production lines and upcoming seasons. Transition plans to preferred fibres in place.
- Positive voluntary uptake of circular design guidelines across industry, implemented at scale.
- Participating brands successfully reduce waste during the cutting phase for core and expanding product lines.
- Resource footprint reduction progress measured and strengthened if necessary.
- Decarbonised manufacturing and remanufacturing practices piloted.

2030

- Circularity is industry best practice and durable, repairable, recycled and recyclable products are accessible to all.
- Increasing proportion of brands replacing virgin materials with recycled and renewable options.
- Increase in circular design standards across the market and on an increasing portion of products. Increase in products eligible for eco-modulation.
- Increased regulation on design standards forces laggards to take action and improves overall industry footprint.
- Remanufacturing industry established onshore, with ‘right-shoring’ principles considered in development. Decarbonised solutions scaled.

DRIVING CITIZEN BEHAVIOUR CHANGE IN CIRCULAR DESIGN

The following map shows the actions and timeframes that are required to drive the citizen behaviour changes necessary to achieve circular clothing design by 2030, as well as the stakeholder groups that need to be involved.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

2025 - 2026

- Research on citizen clothing use practises inform the baseline for Australia, filling data gaps.
- Key responsible behaviours identified for ongoing communications and citizen segmentation.

2027 - 2029

- Citizen education campaigns highlight the importance of optimal washing, drying and storage of clothing to extend useful life.
- Citizen messaging on the benefits of durable and recyclable products developed and promoted.
- Citizens play a lobbying role to help increase government regulation and call out brands falling behind on circularity targets.

2030

- Higher durability standards for clothing mean citizens keep clothing in use for longer, therefore reducing the pace of consumption and disposal.
- Citizen care practices increased and improved washing and drying practices reduce carbon emissions. Local councils and brands continue to promote consistent messaging for best practice.

Image: Ksenia Chernaya, Pexels

ENVIRONMENTAL INFLUENCES ON CIRCULAR DESIGN

The following table shows the critical environmental factors that will influence the ability to achieve circular clothing design by 2030.

AREA	CRITICAL ENVIRONMENTAL FACTORS
Government policy	• Eco-design and eco-labelling standards (for example a 'recyclable' logo) are developed and stricter regulation on greenwashing is implemented. • Government considers financial or regulatory action on unsustainable clothing (for example, non-recyclable or non-durable clothing) and signals intentions to industry. • Unsafe chemicals are banned from import and production.
Investment and finance	• Manufacturing infrastructure, in Australia and globally, makes a widespread shift to renewable energy. • There is significant investment in industry progress and the skills required to deliver circularity, as part of investment criteria.
Infrastructure	• Manufacturing facilities invest in improving efficiencies in partnership with their customers. • Significant efforts are being made to create and regenerate more localised manufacturing, from spinning to garment manufacture.
Skills, jobs and training	• Better collaboration is occurring between design teams and manufacturing facilities to build skills to deliver on ambitious circular design challenges. • Circular design taught to a future generation of leaders so it becomes the norm. • More partnerships for repairers and remakers to access materials.
Technology	• Emerging technologies like 3D sampling, virtual presentations and garment tracking labels are investigated and implemented. • Transparency and traceability technologies support decision making in the design stage and data is used to ensure continuous improvement.
Innovation and research	• Lower carbon footprint fibres and products reach commercial scale.
Primary industry	• Key capability gaps such as fibre spinning, are identified and addressed. • Unsafe chemicals are phased out, regardless of regulation.
Cultural consciousness	• A cultural re-valuing of clothing means citizens increasingly recognise the social, environmental and economic value of their clothes. • All clothing purchasing decisions consider where clothes come from, who made them and where they will end up. • There are lower expectations of uniformity in design and more products that celebrate individuality.

2 Circular business models

The second key priority for the roadmap to clothing circularity by 2030 is the creation of circular business models which rethink how consumers acquire their clothing.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

ACTIVITY MAP

The following activity map shows the actions and timeframes that need to be met to achieve circular clothing business models by 2030, as well as the stakeholder groups that need to be involved.

2025 - 2026

- Business case for circular business models is developed and guidelines for best practice are defined and shared.
- Suitable products within a business portfolio are identified to trial or scale a circular business model.
- Case studies and pilots developed for improved merchandise planning, stock and inventory control to reduce pre-consumer waste.
- Local councils successfully pilot community clothing events, such as clothing drives, exchanges or swaps, suited to regional needs.
- Current pathways for overstock, faulty, deadstock, clearance wearable clothing and pre-consumer waste are mapped and opportunities identified.
- Charitable reuse sector upskilled, enabling the sector to increase capacity. Improved sorting methods and technologies investigated and piloted.
- Specific challenges for circular business model adoption in rural and remote regions are better understood through research and case studies, including the cost of transport and citizen practices and access.

2027 - 2029

- Increased number of stewards and reuse operators offer repair and alteration services.
- Most brands have trialled one circular business model strategy and shared learnings.
- Local councils facilitate community clothing events regularly.
- Targets for circular business model revenue replace sales of new products. Production quantities reduced accordingly.
- Learnings from pilots to reduce pre-consumer waste are shared and scaled.
- Recommendations made to government and investment community to stimulate growth in circular business models.
- Degrowth pilots established with the goal to decouple growth from resource use.
- Social, economic, and environmental benefits of scaled circular business models are calculated.

2030

- Learnings from degrowth pilots, where financial success is decoupled from resource use are shared and scaled. A growing number of businesses are successful in achieving this.
- Reuse sector and new circular business model businesses continue to thrive and diversify, reaching more citizens and replacing new consumption.
- Increased partnerships with welfare, charity and commercial reuse operators direct wearable unsold stock to reuse pathways.
- Viable circular business models are scaled to mainstream offering by many brands.
- Pre-consumer and post-consumer waste is dramatically reduced and redirected from landfill.
- Local councils and State and Federal Governments strengthen initiatives to support circular business models through funding, events and citizen communications.

DRIVING CITIZEN BEHAVIOUR CHANGE IN CIRCULAR BUSINESS MODELS

The following map shows the actions and timeframes that are required to drive the citizen behaviour changes necessary to implement circular clothing business models by 2030, as well as the stakeholder groups that need to be involved.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

2025 - 2026

- Formal and informal reuse practices for citizens are mapped alongside the existing circular business model landscape.
- Citizen attitudes towards circular business models are measured and a baseline is set. Segmentation, insights and targets follow.

2027 - 2029

- Citizen behaviour change campaigns are executed, focused on buying less and using second-hand, or alternative models such as rental or subscription services to acquire clothing.
- Citizen clothing care, DIY and repair skills campaigns are implemented based on citizen segmentation analysis.

2030

- The average total number of new clothing purchased by individuals decreases and the average life of clothing increases.
- Citizen relationships to clothing have shifted and practices of care, repair and reuse are the norm.

Image: Ron Lach, Pexels

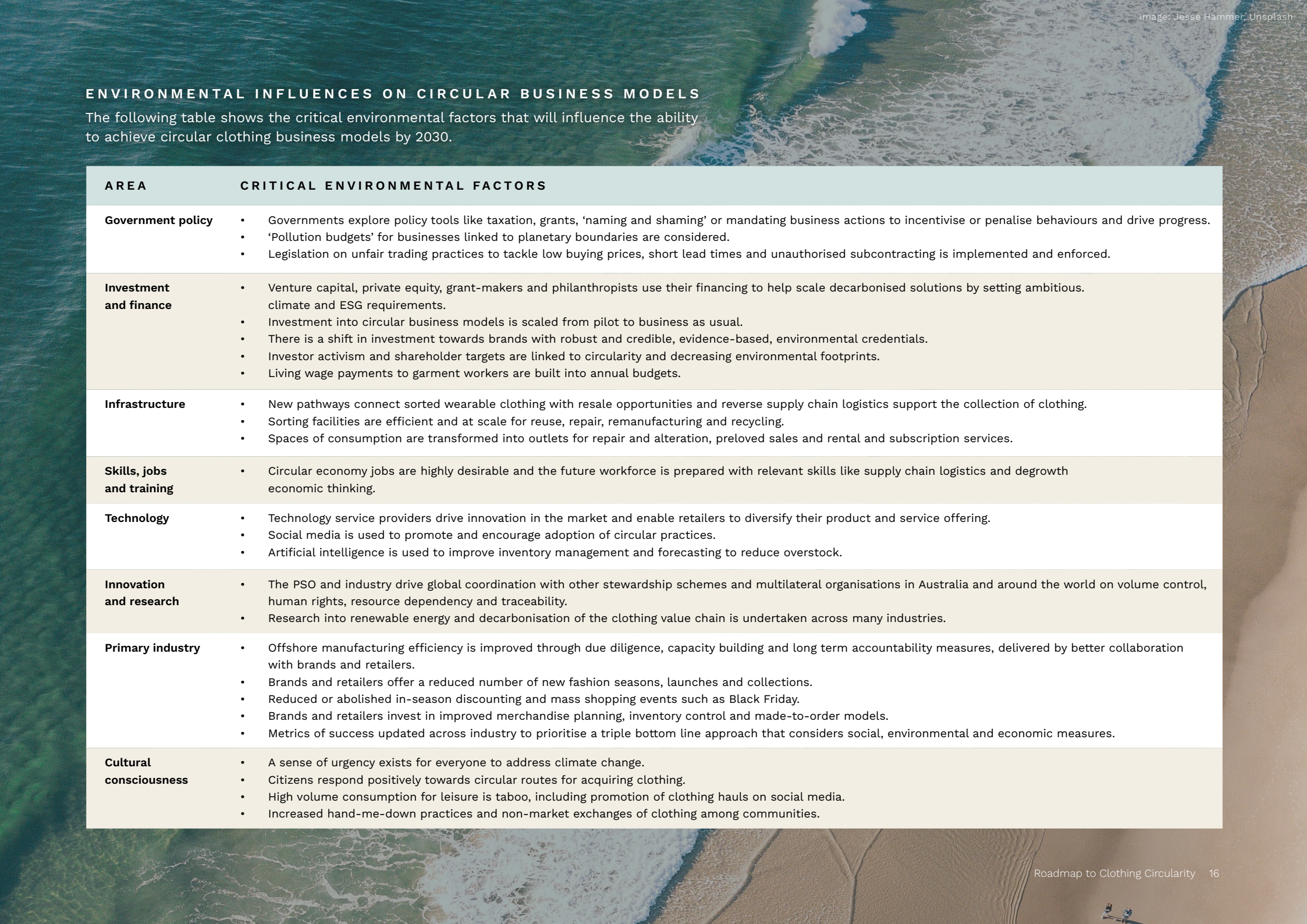

Image: Jesse Hammer, Unsplash

ENVIRONMENTAL INFLUENCES ON CIRCULAR BUSINESS MODELS

The following table shows the critical environmental factors that will influence the ability to achieve circular clothing business models by 2030.

AREA	CRITICAL ENVIRONMENTAL FACTORS
Government policy	• Governments explore policy tools like taxation, grants, 'naming and shaming' or mandating business actions to incentivise or penalise behaviours and drive progress. • 'Pollution budgets' for businesses linked to planetary boundaries are considered. • Legislation on unfair trading practices to tackle low buying prices, short lead times and unauthorised subcontracting is implemented and enforced.
Investment and finance	• Venture capital, private equity, grant-makers and philanthropists use their financing to help scale decarbonised solutions by setting ambitious. climate and ESG requirements. • Investment into circular business models is scaled from pilot to business as usual. • There is a shift in investment towards brands with robust and credible, evidence-based, environmental credentials. • Investor activism and shareholder targets are linked to circularity and decreasing environmental footprints. • Living wage payments to garment workers are built into annual budgets.
Infrastructure	• New pathways connect sorted wearable clothing with resale opportunities and reverse supply chain logistics support the collection of clothing. • Sorting facilities are efficient and at scale for reuse, repair, remanufacturing and recycling. • Spaces of consumption are transformed into outlets for repair and alteration, preloved sales and rental and subscription services.
Skills, jobs and training	• Circular economy jobs are highly desirable and the future workforce is prepared with relevant skills like supply chain logistics and degrowth economic thinking.
Technology	• Technology service providers drive innovation in the market and enable retailers to diversify their product and service offering. • Social media is used to promote and encourage adoption of circular practices. • Artificial intelligence is used to improve inventory management and forecasting to reduce overstock.
Innovation and research	• The PSO and industry drive global coordination with other stewardship schemes and multilateral organisations in Australia and around the world on volume control, human rights, resource dependency and traceability. • Research into renewable energy and decarbonisation of the clothing value chain is undertaken across many industries.
Primary industry	• Offshore manufacturing efficiency is improved through due diligence, capacity building and long term accountability measures, delivered by better collaboration with brands and retailers. • Brands and retailers offer a reduced number of new fashion seasons, launches and collections. • Reduced or abolished in-season discounting and mass shopping events such as Black Friday. • Brands and retailers invest in improved merchandise planning, inventory control and made-to-order models. • Metrics of success updated across industry to prioritise a triple bottom line approach that considers social, environmental and economic measures.
Cultural consciousness	• A sense of urgency exists for everyone to address climate change. • Citizens respond positively towards circular routes for acquiring clothing. • High volume consumption for leisure is taboo, including promotion of clothing hauls on social media. • Increased hand-me-down practices and non-market exchanges of clothing among communities.

3 Closing the loop

The third key priority for the roadmap to clothing circularity by 2030 is closing the loop by transforming how we collect, sort and eventually recycle our clothing at the end of its life.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

ACTIVITY MAP

The following activity map shows the actions and timeframes required to close the clothing loop by 2030, as well as the stakeholder groups that need to be involved.

2025 - 2026

- Development and accreditation of best practice for effective collection and sorting of all clothing.
- Composition and ratio of wearable vs unwearable clothing in different waste streams is investigated.
- Landscape review of current sorting, reprocessing and recycling infrastructure is conducted.
- Pilots identify key volume product lines to design for recyclability. Non-durable and non-reusable products such as underwear are prioritised.
- Feedstock grades required by different fibre-to-fibre recycling inform circular design, sorting and collection guidelines.
- Early adopter brands set recycled content and recyclability targets, establishing industry best practice.
- Participating retailers partner with downstream stakeholders to identify pathways for take-back schemes.
- Business case and roadmap for open and closed loop recycling in Australia developed (with attention to onshore vs offshore).

2027 - 2029

- Consistent minimum sorting and collection standards are established. Manual and automated methods are tested and scaled.
- Take-back schemes piloted and scaled. Sorting and recycling partnerships are supported.
- Decarbonised solutions to make clothing out of recycled materials are explored and piloted.
- Initial pilots are established with full chain participation, testing products designed for recyclability from end to end.
- More than half of brands have set recycled content and recyclability targets. Early adopters share learnings and scale.
- Recommendations to the government and investment sector identify gaps, and financial support helps to scale.
- Additional fibre-to-fibre plants are in development or scaled. The investment sector is supporting development.
- Close proximity to fibre growing funds research and development, and end-of-life composting is scaled.

2030

- Best practice on sorting and collecting wearable and unwearable clothing is widely adopted and providers are available regionally.
- Increased recycling capacity around Australia makes recycled fibre choices viable on a large scale, and accessible to more regions and price points.
- Multiple recycling facilities for synthetic and cellulosic fibres operate at scale. Commercial scale fibre-to-fibre plants are fed by Australian feedstocks and availability of recycled fibres meets in-country demand.
- Increased onshore pathways for unwearables and improved sorting practices provide assurance that exported clothing is in wearable condition.

DRIVING CITIZEN BEHAVIOUR CHANGE IN CLOSING THE LOOP

The following map shows the actions and timeframes that are required to drive the citizen behaviour changes necessary to close the clothing loop by 2030, as well as the stakeholder groups that need to be involved.

- Stewards
- Reuse operators
- Manufacturers, re-manufacturers and recyclers
- Industry experts and academia
- PSO
- Government

2025 - 2026

Citizen donation and disposal pathways are mapped. Insights and segmentation inform messaging which aims to change citizen behaviour.

2027 - 2029

All relevant stakeholders who have established communication channels to citizens communicate and promote consistent donation guidance, presenting clear and consistent alternatives to putting clothing in the bin.

2030

Recycling unwearable clothing is a social norm and most clothing is diverted from landfill.

Image: Julia Cameron, Pexels

Image: Janko Ferlic, Unsplash

ENVIRONMENTAL INFLUENCES ON CLOSING THE LOOP

The following table shows the critical environmental factors that will influence the ability to achieve a closed clothing loop by 2030.

AREA	CRITICAL ENVIRONMENTAL FACTORS
Government policy	• The export of unwearable clothing is prohibited, and all waste is dealt with onshore and in accordance with the waste hierarchy. • Landfill levies are raised over time and harmonised across states. Clothing is eventually banned from landfill. • The destruction of unsold goods is penalised or prohibited.
Investment and finance	• Investors have capitalised on opportunities to close the loop and have helped scale sorting, disassembly, mechanical and chemical recycling, working with other parties to leverage their funds.
Infrastructure	• Disposal pathways for clothing are available to everyone, including regional and remote communities. • It's common to see shared sorting and collection infrastructure in local centres. • Operators have global links to new and emerging fibre-to-fibre innovations, particularly in manufacturing regions across the world.
Skills, jobs and training	• The process for sorting clothes is trusted and respected. Manual and automated processes to sort and grade for recycling are highly valued and accessible, in terms of skills and machinery. • Engineering jobs have been created for recycling facilities and related processes.
Technology	• Online platforms connect unused fabrics with potential users. • Traceability is improved through garment-tracking technologies, including in the post-consumer phase. • Automated sorting and fibre detection technologies are scaled.
Innovation and research	• Recyclability of unwearable clothing is maximised through technology to separate blended fibres. • Technology facilitates a better understanding of the role of design in recyclability. • Technology facilitates scaled composting.
Primary industry	• There is an increase in onshore jobs in spinning, as well as increased sorting and collecting capacity and fibre-to-fibre recycling. • It is the industry standard to supply unwearable but still useable material streams to those who can repair, remake and redesign clothing.
Cultural consciousness	• Citizen concern about what happens to unwearable clothing stimulates progress and encourages action from corporations and governments. • A sense of responsibility among citizens has grown, and recirculating or disposing of items responsibly is common practice.

The future state: reduce, reuse, recycle

The wardrobe of the future

By 2030, how Australians acquire, use and dispose of their clothing will be very different.

While it may look the same on the surface, the wardrobe of the future will represent responsible stewardship and citizenship from clothing design and production, through to consumption and recirculation.

It will contain fewer clothes, most of which will be made to last from renewable fibre. Many items will be loved for longer, or enjoying a second life, or will have found their way into the wardrobe from new sources like rental or made-to-order. It will be standard practice for less durable items (such as underwear) to be made from recycled materials.

Figure 4: The wardrobe of the future

Image: Commas

Securing a sustainable future for all

As the impacts of climate change grow and intensify across the globe, it is clear that greenhouse gas emissions must fall.

The United Nations recommends overall emissions reductions of 45%[1] by 2030 to reach Net Zero and to limit global warming to no more than 1.5ºC by 2050.

The Australian Government passed the Climate Change Act which set national targets for cutting emissions by at least 43% by 2030 and reaching Net Zero by 2050.

The Federal Minister for Environment and Water, Tanya Plibersek, together with Australia's State and Territory Environment Ministers have agreed to work with the private sector to design out waste and pollution, keep materials in use longer and foster markets to achieve a circular economy by 2030.

For Australia's clothing industry to achieve circularity by 2030, collaboration is required across the value chain to drive the transformative change needed to reduce, reuse and recycle clothing.

Together we will create a circular clothing economy focused on mitigating climate change and upholding social justice, fostering creativity in thriving business models and encouraging healthy citizen behaviour for a prosperous future on a livable planet.

It is imperative that the industry acts now if it is to have a chance to align with the government's circular economy and carbon emissions reduction targets and to keep Australia on a pathway to a Net Zero future.

[1] United Nations Environment Programme (2022). Emissions Gap Report 2022: The Closing Window - Climate crisis calls for rapid transformation of societies

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