THE FUTURE OF PRODUCER RESPONSIBILITY IN AUSTRALIA

INTERNATIONAL SOLUTIONS THAT WILL FIX A BROKEN SYSTEM

July 2026

One Planet Consulting

CONTENTS

ACKNOWLEDGEMENTS

I would like to pay tribute to the many wonderful experts who have graciously shared their knowledge over many years. This report would not be possible without them, particularly during my six months living and working in EU in 2025. I have sought to achieve appropriate breadth and depth in this complex area that underlies Australia's productivity and fairly represent facts; there is much more that could have been written on steps, staging, budgets and operations. This report is an independent analysis including meetings, presentations and discussions with colleagues in Europe and across Australia in government, industry, associations and consulting. Thank you to all.

Amongst the many in Australia and overseas I would like to thank these colleagues for their data and reports that have assisted with the comparative analysis in this report:

- Sophi MacMillian, CEO ResiLoop
- Ainsley Simpson, CEO Seamless
- Barry Cosier, CEO Soft Plastic Stewardship Australia
- Libby Chaplin, CEO Battery Stewardship Council
- Lina Goodman, CEO Tyre Stewardship Council
- Kylie Roberts-Frost, CEO Australian Bedding Stewardship Council (ABSC).

Finally, sincere thanks to those who have contributed their time and wisdom to this independent research project:

- Emma Syrat for her outstanding work with research, writing, structure, and bibliography
- Rod Carr (Marsden Jacob) especially for charts informing the comparative analysis
- Helen Lewis for her contributions to research, case studies and review
- John Thwaites and Richard Collins for encouragement and review.

And most importantly, my deepest appreciation goes to James Maude for supporting my time, travels and investments into this endeavour, and shared vision for a better future for Australia.

We acknowledge Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of Country throughout Australia and recognise their continuing connection to land, waters and community. We pay our respects to Elders past and present and acknowledge the importance of First Nations knowledge and stewardship in shaping sustainable resource management and circular economy practices.

Disclaimer

This report is based on the best-available data, sources and policies. Interpretation is provided and may simplify complex structural and methodological differences across nations and EPR systems. Efforts have been made to ensure the contents are factually correct, nevertheless figures, international benchmarks, and cost estimates are indicative and should be independently verified against primary sources including producer responsibility organisations, government, international entities, and national regulatory sources.

Publisher: Helen Millicer, One Planet Consulting
Melbourne, Australia
ABN: 4246 4508 764
helen@helenmillicer.com
+61 (0) 413 875 872

FIGURES AND TABLES

ABOUT THE AUTHORS

Helen Millicer, GAICD, Churchill Fellow has decades as a sustainability professional and board director and chair, and been CEO of One Planet Consulting since 2012. She has led national industry reform programs in energy, carbon, water and circular economy from within governments and peak bodies. Helen is currently EPR expert advisor to Soft Plastic Stewardship Australia, Australia-Lead for Climate Action for Associations (out of UK) and Director of Solving Plastic Waste CRC. Qualifications include BA and Post-Grad Dip Business Management from Monash University, and certificates from the Australian Institute of Company Directors, Carbon Accounting from Swinburne, and Sustainable Investing from Harvard..

Emma Syrat is a sustainability and circular economy professional based in France with a strong background in consulting and project management in Australia and Europe. UK qualifications include: BA International Relations and MA Environmental Planning and Management, and she is a certified environmental systems auditor. Emma is passionate about accelerating the transition to a more circular economy and creating systems where resources are valued rather than wasted.

COMMENDATION FOR THIS REPORT

Joachim Quoden
Managing Director, Extended Producer Responsibility Alliance Brussels / Cologne

Congratulations to Helen Millicer and her colleagues. This report is a strong, timely and much needed contribution to the EPR debate in Australia and around the world. It correctly frames EPR as a tool for improved governance, financing and productivity of priority product supply chains. The extensive international evidence and analysis in this report strongly supports moving towards mandatory, well-governed, transparent and properly enforced EPR systems. It clearly illustrates that voluntary schemes can be useful as a starting point but are not sufficient in product categories like packaging, tyres, electronics and clothing with thousands of obliged companies. More and better regulated EPR will provide fairness, scale, coordination and serious investment where little or none currently exists.

Australia has an opportunity to learn from the successes and failures in other countries and this report makes an important contribution to Australia's future. We look forward to seeing the results.

FOREWORD

Professor John Thwaites AM
Professor of Practice in Sustainability
Monash Business School
Chair, Circular Economy Ministerial Advisory Group (2023 – 2024)

Why is this report so important and urgent?

As Helen Millicer identifies, Australia's Extended Producer Responsibility (EPR) system is well overdue for reform and now lags many comparable nations. Since 2011, no new national EPR schemes have been regulated, resulting in an ongoing fragmented and underperforming system that creates duplication, inefficiency and higher costs across the economy for households, businesses and governments. Australians continue to be sold products — from televisions, tyres and batteries to clothing and packaging — that are difficult to reuse, repair or recycle.

As Chair of the Circular Economy Ministerial Advisory Group (CEMAG), I saw strong evidence that better product stewardship and EPR systems will be essential to Australia's transition to a more circular and productive economy. Effective EPR is not simply an environmental measure. At its best, it is an economic and productivity reform that improves material efficiency, supports innovation and investment, and strengthens domestic manufacturing, recycling and repair industries.

This report fills an important gap in research and policy development in Australia. It is a practical examination of how effective EPR systems work, drawing on examples of both good and poor design from Australia and overseas. Importantly, Helen Millicer structures the report around the three essential components of effective EPR systems:

- legislation and regulation
- Producer Responsibility Organisations (PROs)
- strong regulatory oversight and enforcement.

This practical focus is particularly valuable. While Australia has undertaken important recent work on circular economy policy, there remains a need for detailed analysis of the institutional and operational design required to make EPR systems work effectively in practice.

The report also clearly identifies the growing weaknesses in Australia's current arrangements, including fragmented regulation, free riders, underfunded voluntary schemes and lack of national coordination. Without reform, these problems will continue to increase costs, undermine investment confidence and risk further stewardship scheme failures.

Importantly, the report does not simply identify problems. It draws on international experience and practical examples to propose realistic pathways for reform suited to Australian conditions. Its recommendations provide a valuable contribution to governments, industry and policy makers as Australia develops the next phase of circular economy and product stewardship reform.

Helen Millicer brings deep expertise and long experience in environmental policy and product stewardship to this work. Her report is thoughtful, practical and grounded in real-world experience. I commend it to governments, industry and all those interested in building a more effective and circular Australian economy.

Professor John Thwaites AM is a Professor of Practice in Sustainability Monash Business School. He was the founding chair of Climateworks Centre and Monash Sustainable Development Institute until 2025. He was Chair of the Ministerial Circular Economy Advisory Group and is chair of McKinnon Institute for Political Leadership. His distinguished contribution to the Australian public includes reviews of gas, electricity markets, pricing, building industry and more. He was Deputy Premier Victoria for eight years until 2007. Qualifications include science and law from Monash University.

EXECUTIVE SUMMARY

0.1 OVERVIEW: UNPRODUCTIVE EPR SYSTEM NEEDS URGENT REFORM

Australia's Extended Producer Responsibility (EPR) system is in urgent need of reform. While over 80 nations have adopted mandatory EPR frameworks that drive investment in jobs, local manufacturing and infrastructure and cut waste and emissions, Australia has not used its existing laws to regulate a new national EPR scheme since 2011. EPR remains the missing piece in the Australian Government's reform agenda to reach productivity and emissions targets and form a more resilient future.

EPR is a proven regulatory and financial instrument that requires producers to take responsibility for their products through to end of life. Producers typically do so by forming Producer Responsibility Organisations (PROs) and paying levies that thereby enable a nation to progress beyond basic level recycling. When well designed, PROs coordinate and fund the economic gap ensuring products like tyres and packaging are designed for longer life and recycled at scale.

Good EPR and PROs stimulate investment in businesses, innovation and infrastructure for circular resources and high returns to the nation. It is also the way nations around the world regulate for increased recycled content in products. EPR is a quiet, effective solution for ongoing coordination of product supply chains and replaces less effective one-off taxpayer funded grants and bail-out programs.

Australia's EPR system is currently fragmented across federal and state jurisdictions, riddled with free riders, chronically underfunded and operating well below the standard of comparable nations. Australia is an outlier in not using EPR for common household and business products. The cost of inaction is substantial: industry is confused with expensive suboptimal systems, while Australian households, businesses and the environment bear the consequences. As a result, millions of dollars of valuable products and materials continue to be wasted going to landfills each year. Australia's per capita emissions and waste generation remains among the worst in the world while multifactor productivity growth has declined to barely visible 0.4% annually to June 2025[1].

This report provides an evidence-based analysis of EPR law, regulation, governance and funding models. It follows key recommendations by the Productivity Commission in 2026 and national Circular Economy Ministerial Advisory Group's (CEMAG) 2024 national report *The Circular Advantage*[2]. It benchmarks Australia's arrangements against international best practice across more than 20 countries and delivers clear, actionable recommendations for government and industry. The report outlines how Australia can harness effective EPR to reform the products that will be bought and used by Australians for decades to come.

Summary of key findings

This report identifies 10 key findings. The headline conclusions are:

1. EPR is a proven tool for effective economic, environmental and productivity reform.
Nations around the world are increasingly relying upon EPR and PROs to set targets and deliver on collections and recycling at a minimum and increasingly for reuse, repair and recycled content for common products. The multiplier returns include new and ongoing jobs, supply chain coordination, innovation, bolstered Small and Medium-sized Enterprises (SMEs), infrastructure investment and more efficient products. The benefits flowing to households and businesses across a country outweigh the short-term compliance requirements and costs upon obliged producers. Impacts upon inflation are negligible.

2. Reform unlocks significant economic opportunity.
Mandatory EPR gives governments, PROs, and industry the certainty to start, invest and innovate for the long term in infrastructure, jobs, and globally competitive manufacturing, while supporting progress toward 2030 and 2050 targets for recycled content, energy efficient products, lower emissions and reduced waste to landfill.

3. Fragmentation is costing Australia billions.
Ten regulators (state and federal) and no coordinating framework is expensive. The Australian Retail Council has estimated ongoing government regulatory fragmentation (including and beyond EPR) will cost $26 billion in lost GDP over the next decade and add more than $9 billion to household costs[3]. A formal intergovernmental agreement between federal/states is needed to clarify roles on EPR laws, regulations, regulator and scope of PROs. Belgium provides a good model for an effective collaborative federal system.

4. One national regulator would fix it.
Designating the national EPA as the regulator for all EPR schemes and PROs would remove duplication, improve business productivity, cut costs and strengthen government regulatory efficiency.

5. Australians and businesses lose out.
Absence of a coherent national direction and regulated PROs has resulted in multiple overlapping voluntary schemes struggling with reduced income, duplicated overheads and dispersed efforts. Other losses include lack of coordination in data, collections, recycled content and public education campaigns.

6. Voluntary EPR is at risk of failure and cannot scale.
Early industry resistance to regulation has eased as voluntary scheme struggles became clear. Only between 3-45% of liable companies pay levies in Australia against 85-100% in mandatory schemes overseas. This leaves champion brands carrying the risk, and national PROs chronically underfunded unable to grow and deliver. Without urgent actions, Australia faces more Redcycle 2.0-type potential collapses, while similar schemes overseas have millions to expertly plan and invest each year into system uplift in national economies with more circular products, repair, recycling and recycled content manufacturing.

7. Stagnating EPR system for 15 years.
No new regulated national EPR schemes have been introduced since 2011 and this lack of national progress on EPR is hindering productivity gains[4]. Meanwhile, in many other countries not for profit (NFP) PROs start, grow, consolidate and collaborate with impressive results.

8. Government support and transparency are missing.
Typically, mandatory EPR schemes overseas form within two to five years with government-industry collaboration. In Australia some sectors and PROs have delayed structural reform while waiting 5-13 years for regulations. ACCC authorisation process for voluntary NFP PROs is a barrier and costly, and warrants streamlining in line with standard practice with authorisation of EPR schemes overseas.

9. Not-for-profit PROs deliver stronger outcomes.
Industry-led NFP regulated PROs are the norm at 87% and consistently outperform commercial competing schemes on results, transparency, accountability and public benefit. Following costly litigation and fraud scandals, four nations wrote new laws in 2023-25 to mandate the NFP model.

10. Central producer registries make compliance easy.
Given constitutional import/export product responsibilities, Australia's national EPA is well placed to oversee national producer registries across current and future EPR schemes, enabling easy business processes, and government analysis, cross-checking, monitoring and enforcement.

Figure 1 illustrates the wide gap and consistently low recycling performance of Australian PROs with these complex products, and illustrates what Australia can gain after EPR reform is undertaken. It provides a sample

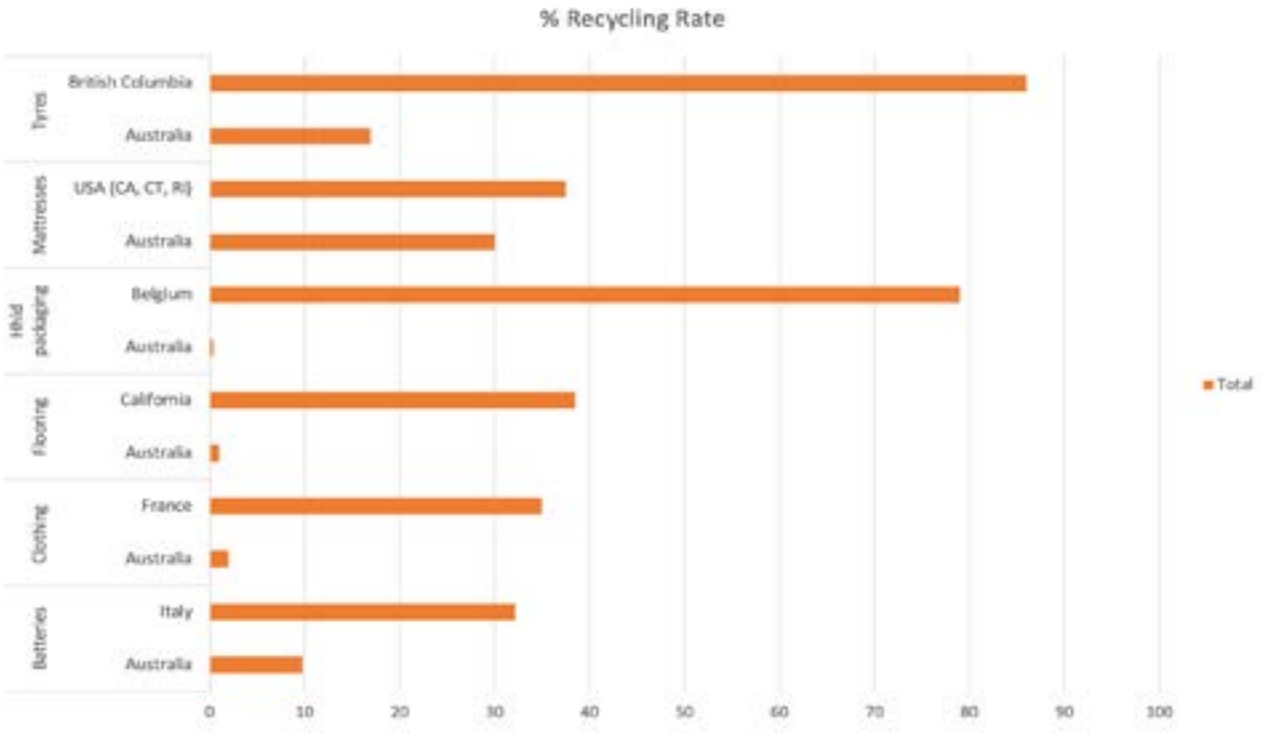


Figure 1 Annual mechanical recycling rates per PRO (2024-25)

NOTE: This chart uses mechanical recycling data obtained from specific PROs relative to the quantity of product into the jurisdiction; it excludes waste to energy/incineration. Australian tyre recycling is by industry and independent of the PRO, Australian packaging data is only soft plastics PRO, the French clothing PRO includes linen, shoes and data excludes reuse, and the Italian battery PRO is for one of four in operation.

of the primary data gathered for this report from some of Australia's NFP voluntary PROs and 'best in class' comparable PROs in other nations. Section 5 covers more key factors behind the effectiveness of PROs including the budgets, staffing, cost coverage, fee eco-modulation and numbers of members.

0.2 READINESS AND URGENCY OF PRIORITY PRODUCT CATEGORIES

As this report illustrates, some Australian voluntary schemes have waited up to 13 years for regulation. Most schemes overseas are regulated by governments within 2-5 years whilst industry coalesces around a PRO entity. As industry completes formal steps for PROs including constitutions, board structures, approvals, contracts and supply chain coordination, governments are simultaneously regulating, selecting, appointing and contracting the PROs. The PROs start small in a niche and grow becoming useful coordinators of improved products and national productivity. Based upon comparative analysis in Section 5 of this report, Table 1 summarises the readiness and urgency for national regulation of these products and appointment of PROs.

Given industry and PRO readiness, Australian Government funding in 2020 and financial precarity, it is reasonable for government announcements to be made in 2026 on phased timing for regulations and for selection and appointments of PROs over next one-three years. The suggested order is in Table 1. Other schemes for regulation can include electrical products and solar PV. Once underway PROs, industry and the Australian Government will be able to more confidently plan and set targets for PROs, sectors, recycled content and improved productivity in the run up to 2030.

This report and recommendations for smarter product stewardship are consistent with policies of all governments and parties for harmonised regulation, strengthened economy, productivity and resilience, including from the Productivity Commission, Australian Retail Council and CEMAG[5].

0.3 REPORT RECOMMENDATIONS

Australia has sound governance regimes, willing governments and industry, talented people and fledgling schemes to build a world-class EPR system into the future. Several key industry sectors and their voluntary PROs, many formed in the last decade and often with support of governments, have demonstrated both the appetite for reform and the capacity to deliver. With the right regulatory framework in place, they can evolve and do far more. Sections in this report describe the roles and responsibilities for laws, regulators and PROs, and illustrate the tremendous scale of the potential benefits waiting to be achieved. The opportunity is as clear as the case for speedy regulatory action.

National policy reforms that enable successful EPR by 2030 for priority products sold to Australians (Sections 3 and 4)

1. Australian governments and industry should recognise EPR and PROs as essential productivity mechanisms that provide coordination, funding and services currently missing in the Australian market. Producer-funded PROs can deliver new collections, infrastructure and services to scale up reuse, repair and recycling for Australian households and businesses.

CRITERIA	BATTERIES	PACKAGING*	MATTRESSES	TYRES	FLOORING	CLOTHING
Environmental/economic/PRO risks if no regulation	Very high	High	High	Medium	Low	High
Australian Competition and Consumer Commission (ACCC) approvals	Attained	Attained	Attained	Attained	Attained	No
Readiness for regulation	High	High	High	High	High	Medium
PRO risk if regulation delayed beyond 1-2yrs	Very high	Very high	Very high	Medium	Medium	Medium
Timing for regulation and appointment of PROs	2026	2026-27	2026-27	2026-27	2027	2028

Table 1 Assessment of priority product category readiness for EPR regulation in Australia

**This refers to SPSA for soft plastic packaging, not the many other voluntary packaging schemes.*

2. Australian governments should recognise that other nations use their EPR and PROs to form targets, manage product supply chains, contract infrastructure, fund recycling and recycled content, engage thousands of producers, establish data, contracts and standards. It is the PROs who are the interfacing expert conductors between governments and markets managing material flow, budgets, reports and ensuring targets are met. The Australian Government must set the regulations, select the PROs and empower the regulator to regulate PROs and obliged companies.

3. Governments should regulate for EPR in high-priority product categories by 2028 for batteries, plastic packaging, mattresses, tyres, flooring, clothing and solar PV at a minimum. There is merit to update of the Oils scheme and TV and Computer scheme as well. Appointed PROs should operate under agreed staged implementation plans, defined timelines, and, where necessary, bridging finance to ensure quick and successful scale-up across Australia.

4. Given the precarity of priority voluntary schemes, the Australian Government should follow the precedent of its 2000 Oils Stewardship funding immediately making available bridging loan finance for a defined period of 5-7 years, with a clear early date for regulation to take effect so producers comply, and schemes can scale nationally.

5. Australian governments and industry should adopt the Extended Producer Responsibility Alliance (EXPRA) Golden Rules as the baseline for effective EPR design and PRO approvals and governance Figure 4[6].

6. Improve government processes for future EPR in line with international standard practice, including ACCC authorisation, appointment, terms etc.

Reforms that strengthen capacity of PROs to deliver improved national productivity (Section 5)

7. Governments should clarify the selection criteria for PROs drawing on the EXPRA Golden Rules and the findings of this report. Criteria should require schemes to operate for public benefit, retain not-for-profit status and flexibility to adapt to improve services in line with regulations.

8. The Australian Government should regulate for industry-led not-for-profit PROs in line with 87% of global best practice. The objective should be to achieve significant efficiencies with singular regulated NFP schemes rather than multiple competing schemes, given this is the most cost-effective way to apply expertise, funds and logistics to related products across vast areas of Australia.

9. Regulations should require eco-modulated producer fees to be introduced so that fee structures incentivise efficiency, durability, repair, reuse, recycling and recycled content in products, and discourage product designs or materials that increase waste, processing, environmental and economic costs.

10. Governments, PROs and industry should work to a 2028 deadline for a cooperation-unification plan where there are competing schemes within specific product categories, such as packaging and electronic goods. This review should cover service scope, roles, responsibilities, budgets, and implementation timeframes. An independent transition broker should be appointed to coordinate negotiations, assess legal, financial, service and governance arrangements, and advise ministers and industry on plans for integration-cooperation options for efficiencies and measurable outcomes.

11. The Australian Government and industry should establish in EPR regulations and PRO agreements measurable performance targets and independent reviews that support ongoing improvement in national industry sectors in productivity, resilience, emissions and environmental performance.

National regulator reforms for necessary compliance and transparency (Section 6)

12. Governments should designate the National EPA as the regulator for all regulated EPR schemes and PROs, supported by delegated state and national functions to improve efficiency, consistency, and regulatory symmetry. The report's findings can inform the design of regulatory obligations for PROs and supply chain participants.

13. The National EPA should have clear powers to apply penalties efficiently to PROs and liable entities where sufficient evidence exists, reducing free riding, time delays and unnecessary administrative burden.

14. Governments should establish a national producer registry, potentially managed by the National EPA, to support compliance monitoring, cross-checking of liable parties, trend analysis, detection of free riders, and coordinated enforcement.

15. Governments, the regulator and PROs should establish appropriate confidential oversight and public reporting frameworks for all regulated schemes, PROs, and liable parties. This can include reporting on financial flows, material flows, collection rates, recycling outcomes, standard contracts, and overall system performance. This will require altering the type of authorisations required by ACCC.

1 INTRODUCTION

1.1 PURPOSE

This report has a clear and urgent purpose:

- **Identify the crucial decisions** to be made on Extended Producer Responsibility (EPR) that will directly shape the cost and quality of products sold in Australia, and how they impact our environment, economy, productivity and national resilience
- **Provide facts and evidence-based analysis** on good design, governance, costs and benefits of EPR laws, regulations, regulators and PROs
- **Benchmark Australia's current arrangements** against international best practice and other countries' systems
- **Highlight best practice requirements for all EPR and PROs** regardless of product categories
- **Provide conclusions and actionable recommendations** for government and industry to improve Australia's current system.

1.2 WHAT IS EPR AND WHY IS IT NECESSARY?

EPR is a legal instrument established by governments to address market gaps and has been in use globally for more than 40 years. EPR laws place an obligation upon producers of priority products to reduce their environmental impact throughout the product's lifecycle.

There is considerable consistency around the world as to which products are covered by mandatory EPR: tyres, batteries, electronic goods, packaging at a minimum because normal market economics mean they are too expensive to repair or recycle. Recycled material is also typically more expensive than virgin material and consequently requires a PRO's financial contribution to equalise costs and achieve scaled collection and treatment. More on the history and milestones of EPR in Australia and overseas can be found in the Appendix.

Table 2 Australian and overseas EPR and PRO examples with detailed data and case studies in this report

PROBLEMATIC PRODUCT	AUSTRALIAN PRO	OVERSEAS EPR MODELS AND PROS
Oil	Australian Government Oil Stewardship	Cyclevia (France)
Batteries	Battery Stewardship Council (BSC)	Cobat RIPA (Italy)
Electronic goods	Multiple PROs for televisions and computers	Multiple PROs for electrical and electronic products in British Columbia (Canada), Ecologic (France), Recupel (Belgium)
Household packaging	Soft Plastic Stewardship Australia (SPSA)	Fost Plus (Belgium), EkoKom (Czechia), Slovenia, UK, California and Brazil
Mattresses	Australian Bedding Stewardship Council (ABSC)	Mattress Recycling Council (MRC) (US)
Tyres	Tyre Stewardship Australia (TSA)	Tire Stewardship (British Columbia)
Floor covering	Resiloop	CARE (California US)
Clothing	Clothing Stewardship Australia (Seamless)	ReFashion (France) and UK

1.3 SCOPE OF REPORT

Comparing EPR schemes and PROs between countries and within countries is inherently challenging due to differences in scope, population, geography, economy, languages and cultural contexts. For this reason, this report focuses on overarching policy choices on EPR laws and regulations, as well as the roles of PROs and regulators, and uses case studies from many countries throughout to examine their impacts in practice. Two criteria have been used to select overseas schemes:

1. availability of data about their history, operations, governance, performance and budget
2. relatively similar scope in products covered with Australian PROs.

As Table 2 shows, analysis in this report is not limited to one country, and this diversity helps identify patterns and overarching principles behind the successes and failures in each jurisdiction providing lessons to inform the next steps in Australia.

Decisions have been made to focus on the key policy questions facing Australia, and less on the more operational, second order issues such as: length of PRO contracts and which targets are written into regulations or in contract agreements. Such details can be considered after Australia's key policy positions are agreed and progress is underway.

1.4 REPORT STRUCTURED AROUND THREE NECESSARY PART FOR SUCCESSFUL EPR

This report is structured around the three distinct and necessary parts of EPR and describes the features for success. The three necessary parts are:

1. EPR laws and regulations
2. PROs[7] and
3. the EPR Regulator[8].

Based on research for this report in Australia and overseas, when any of these three parts are missing or their roles and responsibilities are not properly fulfilled, problems can arise such as non-compliance, program collapse, missed targets and damaged reputations and trust.

Australia is not the only country to have problems with inadequate EPR frameworks. For example, a 2025 report by the World Bank on EPR in ASEAN countries noted that Malaysia and Thailand lack a national regulator, hence obliged companies and PROs do not comply with the Act[9]. Without a national regulator gaps persist in areas such as free-riding, underfunded collection systems, and poor public access which ultimately undermines the effectiveness of EPR laws and limits national progress.

This report also describes the features and challenges of three producer responsibility models operating in Australia, namely:

1. Voluntary schemes
2. Mandatory industry-led or 'co-regulatory' schemes
3. Mandatory measures or government-led schemes.

Figure 2. Three necessary parts for successful EPR and key terms

1. Government laws for Extended Producer Responsibility (EPR) requires two formal elements: **EPR legislation** passed by parliament, and detailed **regulations or rules** for PROs and obliged producer companies approved by the minister.

2. Producer Responsibility Organisation PRO: is an organisation that obliged companies can join to carry out their EPR duties on their behalf, such as public education, collecting and recycling. Companies can join these PROs and pay levies that vary according to product quantities and types they put into the market. Sometimes also referred to as 'Scheme Administrator' or 'Product Stewardship Organisation' (PSO).

3. EPR Regulator: a government authority that checks obliged companies and PROs follow EPR laws and regulations operating to specific standards and meets government targets and penalises them financially as required. EPR Regulators are responsible for holding the contract agreements with the PROs and ensuring all obliged parties deliver agreed services. Depending upon jurisdiction the EPR Regulator is the national EPA, a Commission or government department. Sometimes the EPR Regulator is also the Registrar for producers.

EPR is a separate legal instrument and works alongside other actions used by governments, such as:

1. National regulations mandating bans or labelling of unsafe products or chemicals of concern
2. Public eco-procurement of sustainable products.

1.5 GOLDEN RULES AUSTRALIA CAN ADOPT FOR EPR LAWS, PROs AND REGULATOR

There are two useful frameworks to analyse the three structures for EPR and effectiveness of EPR in different nations. First is 10Rs (Figure 3)[10] and EXPRAs Golden Rules (Figure 4).[11] [12]

This report also draws upon international best practice guidelines and reports by organisations such as the Organisation for Economic Co-operation and Development (OECD), Waste and Resources Action Programme (WRAP) UK, International Solid Waste Association (ISWA) and the Product Stewardship Centre for Excellence in Australia.

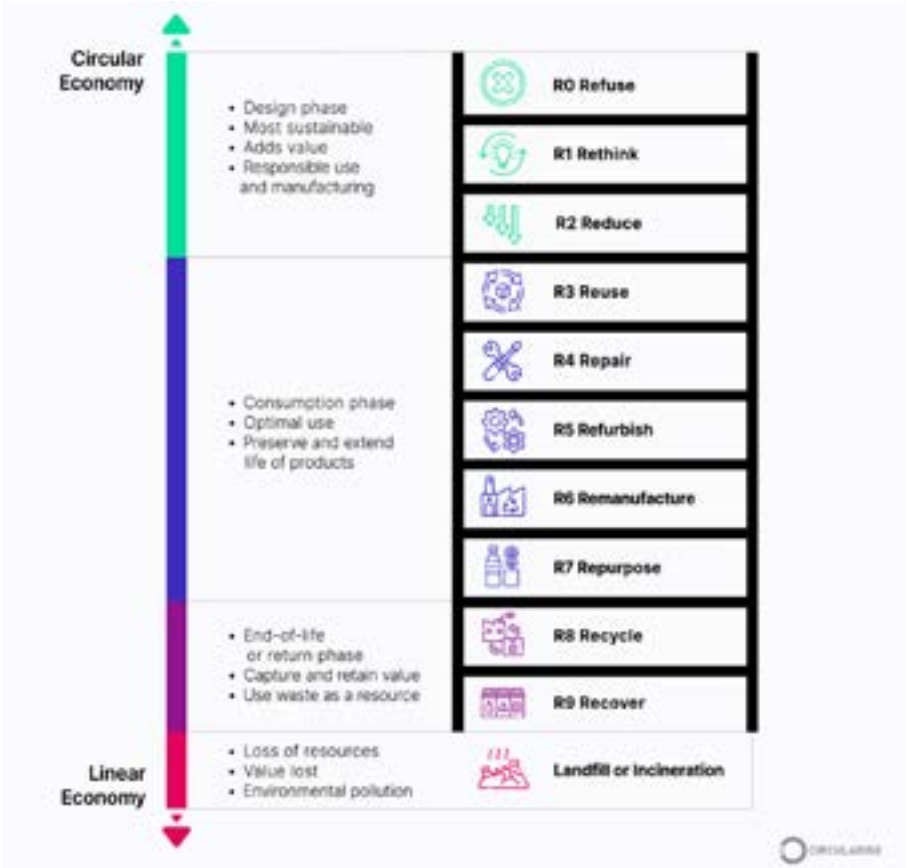


Figure 3 10R-Hierarchy of strategic steps (Adapted from Cramer, 2020 Circularise, 2023

Figure 4 Golden Rules for EPR 2025 (EXPRA, 2025)

2 IMPACTS OF EPR ON A NATION'S ECONOMY, SOCIETY AND ENVIRONMENT

Australia's Productivity Commission in 2026 reported that there are some policies and regulations that favour linear processes and not circular practices such as good design, reuse, repair, and recycling. They called for action to move away from high-volume consumption of new products and packaging for improved materials productivity (Productivity Commission 2026)[13]. This report and this section summarise the experiences and facts around costs, benefits, and inflationary implications of EPR to households, business and an economy. This section contains examples of published and accessible Cost Benefit Analyses (CBA) into EPR schemes overseas. Section 3 summarises the costs, losses and challenges in Australia and Sections 4-6 cover solutions.

It must be noted that while 80+ countries have introduced mandatory EPR, and almost all are industry-run PRO schemes, there are surprisingly few published comprehensive CBAs. In a conversation for this report in February 2026 the CEO of the Belgian regulator explained this gap:

1. Many nations conducted CBAs into EPR legislation in 1990s-2000s prior to digitisation of government reports, and such material is in archives
2. There is overwhelming long standing support for EPR, and most policy and research questions now are on detailed aspects of regulations and design, and not whether to adopt EPR or not
3. Short CBAs are sometimes conducted into additional schemes or extensions well after initial EPR laws and other schemes are in place.

2.1 EPR AND IMPACT ON PRICES AND INFLATION

Overall, literature available indicates that:

1. While EPR systems impose short-term costs on producers for new infrastructure investment, EPR has, at most, had a very small and indirect effect on inflation, and certainly marginal relative to the cost of the product itself where there can be greater fluctuation in prices
2. While the broader societal, environmental and structural benefits of EPR are complex and difficult to monetise, EPR is recognised as significant structural solution with ongoing benefit for the nation and its citizens
3. EPR systems with high rates for collection and recycling don't necessarily entail higher costs upon citizens
4. Countries with long running EPR schemes opt to adjust EPR regulations, and NFP PROs to adjust fee structures, targets and operations to further extend scope and benefits.

It is difficult to calculate the levy cost as it stimulates diverse responses and improvements over time. When a levy is introduced, it either adds to the cost someone has to pay or adjustments are made to minimise it. Sometimes it is absorbed into the cost of business, passed through to the customer or it is minimised by a change so that it is not incurred or is reduced (removed or changed packaging for example). Whichever it is, it is highly individual to each business, product and each product scheme and is hard to measure relative to total cost of a product and the benefits. For example, EPR cost of $25 packaging for $800 mattress purchased every 10 years both of which are recycled and sold back into the market rather than both wasted to landfill.

There are a few key differentiating points for EPR versus other levies used by governments:

1. It is difficult to measure impact of EPR levy in an economy because the costs are so small and irregular. These costs are sometimes offset by decisions made by the producer to change, for example, their packaging so it incurs a smaller fee, or because it is offset by lower council waste rates for the household or even offset by markets responding to a new stream of recyclables that have higher value.
2. If the levy is passed through it only applies to new product sales, it is not universal, annual or a tax.

For example, if someone does not purchase a new mobile phone for five years, they do not pay the EPR levy for five years. If the phone is repaired and resold, there is no EPR levy. EPR levies are a consumption-based charge paid upon purchase of new product and not a broad annual charge upon all households such as council waste or disaster relief levies. For this reason, EPR, particularly with eco-modulated fees, is viewed as a fair and equitable way to pay for costs incurred whilst also sending a signal to producers to improve productivity.

It is important to note that Australia has precedents with industry levies. EPR and PROs have some parallels with Australia's agricultural Research and Development Corporations in so far as the use of a levy to fund important important uneconomic activities.[14] The difference is that PROs levies are not matched by government funds, and they act as an incentive for business to adopt efficiencies.

Furthermore, the levies collected are used to deliver better products and new collections, sorting and recycling services that benefit all households and many businesses in a country.

In terms of efficiencies, ten years ago in 2016, the OECD published useful research reviewing EPR schemes worldwide identifying that for those PROs with operational responsibility, nearly all funds (90-95%) received from producers in the form of levies was distributed and invested services in collection, sorting and treatment markets provided by external commercial providers.[15] This is a high rate of distribution for 5-10% fees for coordination of services that benefit a nation, its citizens and industries.

Cost benefit analyses, discussed below, confirm that the introduction of EPRs can be welfare generating with the economic benefits (environmental, social and economic) outweighing the costs.

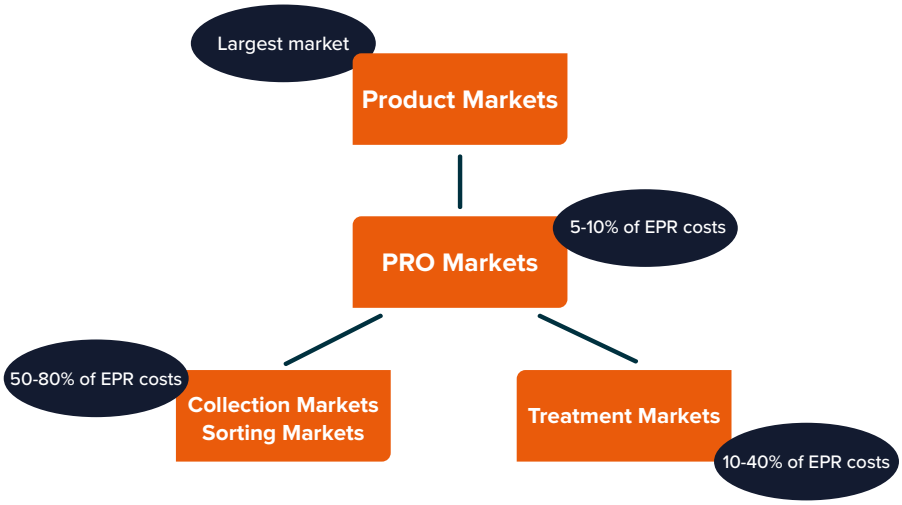


Figure 5 Relationship among markets and actors: PROs with operational responsibility (OECD, 2016)

2.2 RECENT COST BENEFIT ANALYSIS - PACKAGING

2.2.1 Case Study Brazil – Cost Benefit Impact Assessment

One of the biggest countries in the world to embrace EPR is Brazil with its revised packaging law passed in January 2026 focused this time on reuseable packaging (their first law for mandatory EPR for packaging was passed in 2010).[16] As a case in point, it is not possible to find a comprehensive government commissioned CBA for this updated packaging EPR law, and these following observations are obtained from various industry and academic studies, such as on agrichemical containers.

In Brazil, the upcoming EPR packaging regulation and reverse logistics requirements mark another step toward further productivity and sustainability. Firms will face some operational costs to comply with EPR obligations toward reuse and recycling infrastructure. Like elsewhere in the world, the industry simultaneously also contends with volatile resin prices, trade wars, tariffs, and regulatory burdens such as health and safety compliance.[17]

Despite these upfront costs, Brazil's reports identify that the new regulatory framework has the potential to generate significant long-term economic and environmental benefits. Strengthened reuse and recycling systems may reduce dependence on imported virgin materials, stabilise raw material costs, and improve supply chain resilience.[18] Regulatory certainty provided by the new decree is also expected to incentivise investment and align the country with global circular economy practices, supporting the competitiveness and resilience of Brazil's packaging industry over time.[19] While studies on specific packaging streams, such as agrichemicals, indicate that reverse logistics may not be financially viable on purely monetary terms, factoring in health and environmental benefits significantly improves the cost–benefit outlook.

2.2.2 Case Study California – Cost Benefit Impact Assessment

California's CalCycle published a short Cost Benefit Analysis (CBA) in 2025 finding a packaging EPR bill could deliver US$32B in net benefits and with $53.3B in avoided costs for consumers and businesses.[20]

California's challenge is they would start from low recycling rates and they are ambitious proposing targets taking plastic packaging recycling from 6 to 65% and new reuse schemes within seven years.

The CBA estimates over 7,000 small packaging producers with gross annual sales under $1M will be exempt from the levy. For small and typical businesses the initial pass-through costs for extensive recycling services could be $6,830 and annual ongoing costs will be $8,311 for the years 2024-2031. And for individual citizens initial costs would be $95 and annual ongoing costs would be $116 for the years 2024-2031. These funds managed by a single NFP PRO would contribute to expanded collection, sorting and processing of additional 3.2M tonnes packaging and estimated 30 new facilities in California by 2032, these being outcomes and facilities that would not eventuate without the EPR. The CBA also calculates additional 132,600 jobs, expanded reuse and refill systems, and positive fiscal benefits for local and state governments.

The law also states that plastic packaging must be reduced by 25 percent which will require the elimination of approximately 1.38 million tons of plastic material that could potentially make its way into the environment. CalRecycle estimates that the decrease in plastic covered material will result in a reduction of approximately 4.07 million tonnes of CO2 emissions by 2032. The CBA also highlights avoided damage costs with PFAS and lower plastic waste to landfills.

2.2.3 Case Study UK & Scotland – Business Impact Assessments

The UK and Scotland, through their 2024 Business and Regulatory Impact Assessment (BRIA), offer one of the most detailed evaluations, showing that while monetised costs slightly outweigh quantified benefits, unmonetised environmental and systemic benefits – including reductions in municipal waste management burdens and greenhouse gas emissions – justify policy adoption.

Unlike the California CBA, the UK assessment does not provide per-business cost figures. It only models aggregate producer compliance costs and system-wide impacts, with any consumer effects expected to occur indirectly through product pricing anticipated at around £56 per household per year for improved services. The UK and Scottish Government published the Extended Producer Responsibility for Packaging: Full Business and Regulatory Impact Assessment (BRIA) in November 2024, assessing the impacts of introducing mandatory packaging EPR across the UK.

Over a 10-year period, it estimates that producers will assume the full net cost of managing household packaging waste, transferring around £11 billion from local authorities to producers. Monetised benefits include GHG reductions valued at about £189 million, reprocessor revenue gains (~£48 million), and producer savings from diverting waste from residual disposal (~£217 million). While the central appraisal shows monetised costs slightly exceeding quantified benefits, government concludes the policy is justified due to wider un-monetised environmental and circular economy gains.[21] Other key reasons for the overhaul in UK is that all easy recycling had been achieved, UK packaging was at a stalemate and progress was not feasible without EPR. And their system was flawed, as mentioned in Section 4.7.1, the opaque reporting and level of fraud in the complex, vertically integrated, commercial packaging PRN rebate system was no longer acceptable to public, industry or government.

2.2.4 Case studies Belgium, Italy, Portugal and the OECD

Case studies in Belgium, Italy, and Portugal also highlight the ability of EPR schemes to transfer costs from local authorities to producers, improve recycling rates, and deliver environmental gains, even though fully quantified CBAs are hard to find.[22] OECD reports and academic research further demonstrate that the efficiency and economic outcomes of EPR systems depend heavily on design features such as competition or not among PROs and eco-modulated fees.[23] Notably, higher recycling performance does not necessarily entail higher costs.

2.3 RECENT COST BENEFIT ANALYSIS - OTHER PRODUCTS

2.3.1 Case study UK, WRAP – Textiles Policy CBA

The WRAP Cost-Benefit Analysis (CBA, 2023) evaluates the impacts on the environment, economy, society and public expenditure that different policies can have. It highlights that EPR for textiles is economically and environmentally justified especially combined with other policies. It helps fund and incentivise producers toward more sustainable design. It supports better systems supporting reuse, collection, recycling, and shifts the cost of managing textile waste from councils to producers. Despite compliance burdens for producers and transitional system setup expenses benefits mentioned include reduced waste to landfill and incineration, lower greenhouse gas emissions, and stimulated circular economy activity, with net societal benefits outweighing costs.[24] It notes the social benefits including improved products sold into the UK market and improved handling and resale of products for low-income households, particularly given the rising tide challenges and impacts of fast-fashion.

Figure 6 Composition of EPR fees in 2027, 2031 and 2036 for Basic and Target EPR, £/tonne (WRAP, 2023)

2.4 CONCLUSION

- **Regulatory compliance costs:** exist upon liable producers but are not economically destabilising. Costs are usually small compared to the price of products and inputs and aspects can be offset by better design and efficiency gains by businesses in the supply chain. Overall, any impact on inflation and household costs is minimal.
- **Social, environmental and productivity systemic benefits are substantial:** in terms of improved product performance and lifespan, reuse, repairability, and recyclability. Flow on benefits to second-hand markets, wider society and increased reprocessing and national product/material resilience outweigh initial costs. EPR leads to circular economy productivity gains that are hard to measure but are significant. This is consistent with findings by authorities in Australia, including the Productivity Commission and CEMAG.
- **EPR model design drives performance:** such as regulatory strength, PRO structure and priorities. Well-designed regulated systems consistently perform better without necessarily costing more.
- **Good governance matters:** public-benefit performance is driven by effective governance and regulatory design.
- **Mandatory systems are useful:** leading to equity, less free-riding, better compliance, more stable funding, transparency and overall stronger sector and system performance.

Photo: Flooring collection, courtesy Resiloop Ltd

3 THE CHALLENGE IN AUSTRALIA AND HOW EPR CAN ADDRESS IT

3.1 PROBLEM STATEMENT - THE CHALLENGE IN AUSTRALIA

EPR is recognised globally as a tool to improve productivity

By adopting policy decisions for improved EPR Australia can decouple growth and productivity from resource depletion. As the World Bank reports, "effective waste management yields net economic gains through avoided health damages, environmental degradation, disaster risks, and lost productivity"[26]. The OECD likewise urges its members, stating "moving towards a resource-efficient and circular economy is critical from both supply security and environmental perspectives and provides the basis for a sustainable and competitive economy"[27]. Both expert economic entities highlight that improved material recovery systems are not merely environmental interventions, but direct economic efficiency measures.

Australian governments' policies have increased consumption not productivity

Global shocks such as wars, COVID-19 and extreme weather events have exposed the risks of Australia's reliance on global supply chains for products and economic growth. They reflect a core structural issue: Australia's economy is a consumption-based economy, not a highly productive or efficient one. Australia's Productivity Commission observed that there are some policies and regulations that favour linear processes and not circular practices, such as good design, reuse, repair, and recycling. The Commission calls for action to move away from high-volume consumption of new products and packaging for improved materials productivity (Productivity Commission 2026).[28] CEMAG similarly warned that Australia risks falling behind major trading partners who are adopting circular economy regulation, eco-design standards and resource productivity measures.[29]

High cost of living and high losses are unstainable

As Section 5 illustrates Australia's path of poor EPR regulations leads to high losses, high costs, high vulnerability to shocks and low product/ resource productivity. Australians continue to be one of the highest consumers and generators of waste and emissions in the world.[30]

Australians currently spend $17 billion a year on basic level management of product waste including collection, treatment and disposal services.[31] Australians generate around 75 million tonnes of waste per year, with only about 60% recovered[32], and the remainder largely landfilled. Australians are amongst the world's highest per capita emitters—around 14 tonnes of CO_2, which is nearly triple the global average of 4.8.[33] Improving product efficiency and cutting embodied emissions are critical steps – both are outcomes of good EPR regulations and effective PROs.

Each year around $520 million worth of packaging ends up in landfills, much of that recyclable.[34] Australia's packaging recovery rate has slowly edged up since 2019 largely due to expensive CDS to 59%, with still over 40% packaging going to landfill.[35] The most effective step change from here is via a national mandatory EPR for packaging that could enable Australia to catch up to other nations.

Similar costs and losses arise with electronic goods each year with $430M losses in 2019 and over 500,000 tonnes.[36] Around 1.8 million mattresses are discarded each year, with the majority still ending up in landfill even though some are new and could be reused or resold, and contain recyclable materials like steel, foam and timber.[37] Similarly, Australians send more than 300,000 tonnes of clothing to landfills each year.[38]

Without more effective EPR regulations, Australia is on track to:

- Generate over 4 million tonnes annually of plastic product waste[39] rising to ~4.9M per year[40]
- Reach around 5.6 million tonnes of total plastic material entering the economy annually, driven largely by continued dependence on imported virgin plastics[41]
- Produce over 6-7 million tonnes of packaging waste annually[42]
- Lose more than $32 billion in material value by 2050, due to inefficient recovery systems, high virgin plastic dependence, and limited circular economy uptake[43]

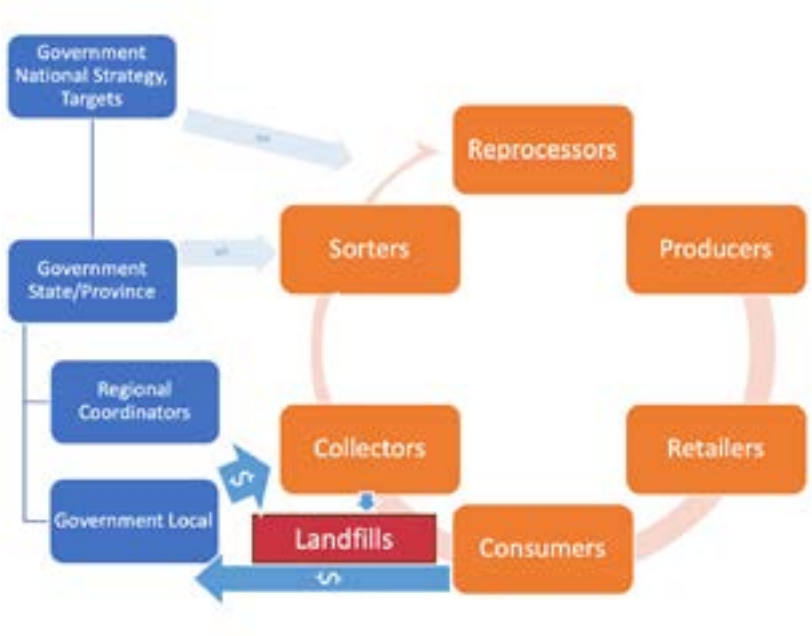
- struggle to improve design, repair, reuse, resale and recycling of priority products
- further entrench linear material and import dependence rather than more resilient circular economy.

Better EPR regulations, supervision and better PRO schemes would deliver far superior performance and results.

The inefficiencies with inadequate or no mandatory EPR lead to higher household costs and can have a particularly negative impact upon low-income households given waste management costs are passed through fixed council charges and clean up via taxes. EPR is widely recognised as a key policy tool to address this issue because it shifts responsibility to producers. Good EPR regulations, regulators and PROs can encourage better product design, longer product life, ease of and more repair, recycling and recycled content. A benefit of mandatory EPR with electronic products and clothing, for example, is that PROs can incentivise and support products to be repaired, tested and resold for low-income households, thus reducing cost of living and supporting a strong second-hand market and SME repairers (see Case Study France 5.8.1).

Figure 7 illustrates Australia's current approach with inadequate EPR regulatory framework (in contrast to effective EPR rules, Regulator and PRO, Figure 8).

Figure 7 Australia's current approach with ratepayer funded collections and voluntary EPR and PROs (Millicer, 2025)



Australia's current system

1. No national regulator for EPR system or compliance
2. Too few designated PROs to run systems
3. Minimal connection between governments and commercial sectors on targets
4. Minimal or zero reporting of systems
5. Linear supply chain without links, and materials do not flow through circular system
6. Govts, ratepayers and environment carry costs
7. Uneconomic to fix system

= Unproductive, wasteful, unfair, uneconomic. It does not work well and cannot be scaled up.

A significant challenge with the current system is that it will not heal itself and become economic. No amount of grants will fix it; the only solution is EPR regulations, a regulator and PRO.

Australia has a fragmented regulatory environment

Australia's approach to EPR is highly fragmented in comparison to other OECD and G20 economies and will become worse if national action is not taken. The Australian Government already has laws for EPR and states are considering more too. There are already eight state-based container deposit schemes that vary in design and compliance systems. There are ten regulators covering EPR-related programs, and in some sectors, multiple overlapping PROs. Without a forward plan the result is more delay, confusion and competition rather than unity for efficiency, visibility and impact. Compliance costs are high for the few regulated businesses, such as beverage companies with CDS, and free riding is extensive for voluntary schemes.

In 2026 the Australian Retail Council (ARC) launched its 'Fragmentation Tax' campaign with modelling that found Australia's 'regulatory fragmentation will wipe $26 billion from national GDP over the next decade and add more than $9 billion to household costs'. They cited inconsistencies in state cross-border freight permits and reporting for container deposit schemes and packaging, both relevant to performance of EPR and PROs.[44]

The situation is further confused by the NSW Government adopting its own EPR legislation and regulation for industry-led schemes, starting with batteries. The Environment Ministers' Meeting Communique in March 2026 acknowledged this structural fragmentation and announced intergovernmental working groups and

forming a national online portal for beverage suppliers.[45] Both the intergovernmental working group and national online portal are essential steps forward.

Australia's 15-year regulatory delay is proving costly

Australia's fragmented approach to EPR is adding to costs. As the Section 7.1 Milestones table show, no new national EPR regulations have been approved since the Product Stewardship Act and NTCRS in 2011 despite calls for reform, including in reports commissioned by the Australian Government. The urgency for EPR regulation has been stimulated by the actions of governments federal and state:

1. the Federal Minister's List in 2019 prompted industry to form PROs
2. the Australian Government since 2020 approving millions in funding matched by industry to investigate and in several instances form PROs to run schemes
3. governments (state and federal) injecting millions, matched by industry in recycling infrastructure.

Illustrating the challenges with one-off taxpayer-funded grants on infrastructure, a recent report for Australian Council of Recyclers (ACOR) identified that plastics recycling facilities are barely viable with around 53% capacity utilisation in 2025, and this could drop to 32% by 2030.[46] As the Rennie ACOR report finds the problem in Australia is not lack of infrastructure investment, it is an economic imbalance in the system, and this imbalance could be assisted by system coordination via EPR and PROs.

Another consequence of inaction is the financial precarity of schemes. Significant ongoing free riding inhibits the effectiveness of schemes, including in Australia's national packaging covenant. As this report shows voluntary schemes members range between 3-45% of obliged companies even at marginal fees levels meaning PROs have no capacity to provide nation-wide equitably accessible collection services and viable recycling facilities. Likewise, these schemes have insufficient funds for national mainstream media campaigns that educate and change behaviours.

Waste disposal costs continue to fall disproportionally on local governments, ratepayers and taxpayers for all products on the Minister's Priority List – from tyres to batteries. The Battery Stewardship Council estimates that costs per household for lithium-ion battery related fires alone is ~$80/yr, whereas costs for a regulated and expanded stewardship service would be $19.63/yr or under a high-investment scenario with extensive national services it would be $36.46/yr.[47] This is not to say that EPR and PROs will solve all societal woes but when well-regulated they contribute funds and coordination for scaled solutions.

For all these reasons, it is wrong to think that it is better for Australia to continue with the status quo. The longer this regulatory confusion continues, the longer Australian households and taxpayers effectively pay five ways for:

1. inefficient non-circular products that cannot be repaired or recycled
2. excessive collection, losses to landfill and clean-up of waste and dumping
3. excessive bail out and insurance costs upon state and local governments, recyclers, and waste businesses
4. overlapping administrative bureaucracy and 10 state/territory/federal regulators
5. high dependence upon government grants for project trials and recycling infrastructure.

Current indecision is a barrier to successful EPR in Australia

The Australian Government has legislated and allows all three model types of PROs with this resulting mix:

1. multiple voluntary national PROs, some overlapping in product categories
2. two industry-led co-regulated schemes (packaging and TV-computers)
3. one single government-run mandatory scheme (for oil).

As this report shows there is an overriding preference in nations around the world for national governments to regulate PROs that are industry-led not-for-profit entities. Australia continues to vacillate on this and also vacillates on delegating to one regulator for all schemes to provide efficient alignment and regulatory symmetry.

Several of Australia's voluntary schemes, awaiting regulation are in limbo and financially vulnerable. The ongoing absence of nationally regulated PROs is resulting in a profusion and confusion of voluntary PROs in related product categories. Australia's two national industry-led EPR schemes (packaging and TV and computers) feature numerous competing PROs that are not enabled or obliged to collaborate, plan and pursue continuous improvement. Most packaging stewardship systems are voluntary and unaligned and suffer considerable free riding even with relatively low fees. There are major gaps in scope coverage (e.g., large format reusable packaging or white goods) and there is a danger that packaging schemes in particular are becoming commercially vertically integrated in the absence of clear policy and regulation. There is no capacity for current schemes to improve, expand, indeed, some are in financial high-risk territory and could cut back or cease in coming years. National equity and productivity can only be gained by the Australian Minister forming policies and regulatory decisions that end fragmentation and in-built conflicts of interest.

Consequences of too many regulators

Regulators for niche EPR like CDS can be found in every state/territory EPA or department and in the federal departments for environment and the Australian Tax Office. There are 10 regulators in total.

The consequences of multiple regulators are serious:

1. There is no central single national regulator efficiently gathering data from and between PROs and government sources like ABS and industry
2. There is no single national regulator overseeing implementation of regulations, compliance of PROs, obliged producers and of PRO supply chain partners and fining them for non-compliance
3. Governments and schemes are unable to form clear policies and targets because they cannot measure or track compliance, issues and achievements
4. There is a costly disconnect in policies, planning and collaboration between PROs, policy makers and regulators
5. There is no capacity nor requirement for informed planning, modelling scenarios, strategic discussion on priority directions and high-impact investment opportunities.

Having summarised with this Problem Statement, Sections 4-6 in this report are focused on solutions.

Table 3 Why EPR reform has stalled in Australia

COMMON CONCERN	CONSEQUENCE	RESPONSE
Industry fragmentation	Multiple competing proposals, no targets or compliance tracking	Establish consolidation pathway and accreditation criteria
Uncertainty over scheme readiness	Paralysis	Use readiness and EXPRA criteria and small start phased implementation
Concern over administrative burden	Profusion of voluntary schemes	National registry and single regulator to reduce burden

3.2 SUMMARY OF AUSTRALIA'S ACTS AND STEWARDSHIP SCHEMES

Table 4 summarises the multitude of EPR laws and regulators at both national and state/territory levels in Australia. Australia is an outlier for having such a discordant approach with mix of every model PRO and both state and national laws and regulators. This current arrangement is confusing, administratively burdensome with multiple duplications for businesses and governments alike. There is no inherently clear pattern, and the prospect of new schemes at state levels with no forward plan raises real risk of further fragmentation and costs.

In their report released in early 2026 on circular economy opportunities, Australia's Productivity Commission replied to the Australian Treasurer identifying the risks associated with this approach and recommended greater coordination and harmonisation between jurisdictions:

> *States and territories are considering developing their own product stewardship schemes in the absence of a national scheme. For example, New South Wales has committed to introducing Australia's first state-based, mandatory product stewardship framework for battery products, including small electronics, and some states and territories are considering similar legislation. Without coordination across jurisdictions, these state-based efforts risk further fragmenting the regulatory environment* (Productivity Commission, 2025, p. 8).[48]

Table 4. National and state laws, regulations and regulators for current stewardship schemes in Australia

National laws that relate to EPR in Australia are (2):

1. Product Stewardship (Oil) Act 2000
2. Recycling and Waste Reduction (RaWR) Act 2020, which is currently under review and which replaced the Product Stewardship Act 2011.

The federal Minister also has existing regulations/rules as follows (2):

1. Product Stewardship (Televisions and Computers) Regulations 2011
2. Recycling and Waste Reduction (Product Stewardship – Accreditation of Voluntary Arrangements) Rules 2020 (which is currently under same review as the Act)

National Regulators for EPR are (2):

1. Environment Department for the NTCRS
2. Environment Department and the Australian Taxation Office (ATO) for the Oils Scheme.

State/territory laws/regulations that relate to EPR and stewardship schemes are (18):

1. Eight laws or regulations for container deposit schemes – one in each state and territory (introduced between 1977 - 2025)
2. Eight laws or regulations to implement the NEPM for Used Packaging (1998)
3. NSW Product Lifecycle Responsibility Act (2025) and Regulation (batteries) (2026)

State/territory Regulators for stewardship schemes (8):

1. Eight regulators for container deposit schemes – environment departments or EPAs in each state and territory.

Should the Australian Government persist in not regulating PROs and states continue to fill the gap by regulating instead, conceivably Australian businesses and producers could have up to eight schemes for each product category of tyres, batteries, clothing, mattresses, solar PV to name but a few. The bureaucracy, overheads, collection inefficiencies, regulatory knots and costs would be an impossible impost upon a nation with 28 million people.

The 2020 RaWR Act carried forward many aspects of the 2011 Product Stewardship Act and added export bans. It covers the following (in addition to administration, compliance, enforcement)[49]:

1. the ban of export of selected waste materials
2. the Minister's Priority List of products that industry is compelled to act upon, with the threat of stewardship regulation if they fail to act
3. the regimes for product stewardship, specifically:
    a. Voluntary that may be accredited by an accrediting authority
    b. Co-regulated that requires liable parties to be a member of and comply with the objects of the Act
    c. Mandatory where rules may be made that may require liable parties to take specific actions such as restricting import, manufacture, certain substances, labelling and packaging requirements for the life of the product.

The Australian Government used the RaWR Act to introduce a Rule in 2021 to phase out supply of mercury-containing lamps in line with the international Minamata Convention. This was a Ministerial decision to remove a hazardous product from sale. However, there has been no action (laws, regulations or rules) for the addition of new EPR schemes or coordinating PROs since the original Act in 2011. The RaWR Act is currently under review, the Priority List is on hold, and there have been several reviews and studies into existing and potential schemes, and national funding was allocated in 2020-2023 for ~10 potential scheme start-ups.

Table 13 in the Appendices lists the products have been or are still included in the Minister's Priority List for industry to take the lead in forming stewardship schemes.[50] [51] The table also summarises the Australian government's requirements and key points in recent reviews of each scheme.

The formation of the Minister's List and Stewardship Fund in 2019 stimulated action and various ministers threatening to regulate formed expectations that schemes may shortly be regulated to become like schemes overseas. At the time there was a sizeable dose of resistance to regulation amongst many in industry and government and a naivety that companies would voluntarily pay money to join a scheme or act, and that voluntary schemes could succeed in reforming complex products and supply chains. As this report finds, that has not been the case, and Australia is virtually alone in the world for thinking national voluntary schemes are good enough.

3.3 PROs IN AUSTRALIA: MATCHING MODELS TO PRODUCTS AND NEEDS

The current legal status and suitability of Australia's three EPR models and schemes in each category is summarised in Table 5. To clarify its use of three product stewardship models, the Australian Government updated the terminology used on its website in 2025:

1. Voluntary (which may be government accredited)
2. Industry-led (previously called co-regulatory)
3. Mandatory.[52]

Most nations choose mandatory EPR with industry-led PROs and there are very few instances of schemes run by government in other nations. Australia is unusual in placing considerable emphasis upon voluntary schemes, which it has done in both the 2011 Act and more recent RaWR Act 2020. Industry-led voluntary schemes can succeed when there are few liable companies in the market segment but are not viable when there are hundreds or thousands of liable producers.

There are differences in views as to whether APCO sits under mandatory industry-led (co-regulated) stewardship in part because it is covered by the National Environment Protection (Used Packaging) Measure (NEPM) and state regulators, also because it is not a typical PRO handling collections and contracts.

In 2011 the Australian Government established an accreditation program within its Stewardship Act to give brand recognition and credibility to voluntary schemes that met certain criteria. Accreditation was initially promoted as a steppingstone for schemes to progress from voluntary to industry-run government authorised mandatory status. However, that has not occurred and there are at least six voluntary industry-led PROs awaiting regulatory action by the government. Some have chosen not seek accreditation due to costs and low value return. It is yet to be definitively confirmed whether government accreditation of a PRO is a prerequisite for the Minister to appoint it as part of the regulatory process for priority product EPR.

Table 5 Three models of EPR in use in Australia and the related stewardship PROs

Voluntary stewardship – no laws or regulations mandating action or participation by companies. Such schemes vary from community run collection programs to voluntary industry initiatives. Have little to no accountability to government for EPR outcomes.	**Mandatory stewardship** – government laws and supporting regulations specifying actions to be taken by obliged companies including reporting to a government regulator.	
Suited to community ventures, or to industry schemes where there are a handful of liable parties, almost all Australian-based, where there are minimal risk and damage from non-participants, e.g., free riding.	**Industry-run PRO**, producers can join a PRO or meet requirements alone. PRO contracts service providers, runs system, reports and is accountable to members and government regulator.	**Government-run PRO**, all must join PRO and pay, and government distributes funds to contracted service providers. Government has control and accountability.
	Suit to products where there are a large number of liable companies, both located in Australia and importers. Suited to highly diverse products, and where PROs will set standards via contracts, site operators, certifications etc.	May be suitable for hazardous products or materials requiring extensive government oversight and control.
For example: 1. DrumMUSTER (agricultural and veterinarian chemical drums) 2. Paintback (paint and paint packaging) 3. Tyre Stewardship Australia 4. Battery Stewardship Council (household batteries) 5. Soft Plastic Stewardship Australia (SPSA) (household soft plastic packaging) 6. 6.Australian Bedding Stewardship Council (ABSC) (mattresses) 7. Resiloop (resilient flooring) 8. Seamless (clothing)	1. National Television & Computer Recycling Scheme (NTCRS) with specific 2011 Regulations 2. Container deposit schemes regulated in all 8 states and territories 3. Australian Packaging Covenant Organisation (APCO) responsible for implementing the Australian Packaging Covenant, the industry-led component of a co-regulatory scheme underpinned by the National Environment Protection (Used Packaging) Measure (NEPM)	1. Product Stewardship for Oil (PSO) Scheme[53]

Photo: Mattress collection, courtesy, Australian Bedding Stewardship Council Limited

3.3.1 Case study: Australia vs France - Oil

FRANCE: CYCLEVIA	**AUSTRALIA:** PRODUCT STEWARDSHIP FOR OIL
Scope Lubricating or industrial oils, and from 2026 associated sales packaging	**Scope** Lubricating oils
History • 1975 – EPR principle in French Environment Code • 2020 – AGEC Law introduced new EPR scheme for oils • 2022 – CYCLEVIA PRO approved • April 2025 – CYCLEVIA transitioned from a purely financial PRO to a mixed financial and operational PRO • Dec 2025 – Decree for commercial packaging confirms oil containers will move to oil PRO	**History** • 2000 - Product Stewardship (Oil) Act 2000 introduced • 2001 - scheme commenced operation • 2000-5 – Govt provided $34.5M bridging finance for 7 yrs to establish program Five statutory reviews have been conducted – the latest in 2025 considered broadening scope to include oil containers[54]
Policy framework Mandatory, industry-led scheme: • EPR is mandated via the Anti-Waste for a Circular Economy Law 2020-105 ('AGEC law') • The PRO is responsible for delivery of the scheme and must report companies that are non-compliant to the French Risk Prevention Directorate (DGPR)	**Policy framework** • Mandatory scheme administered by the federal government. ATO raises a levy on oil-based lubricants which is paid to companies that recycle used oil. The Product Stewardship (Oil) Regulations 2022 provides rates of benefits and standards for each category of recycled oil.
PROs • CYCLEVIA is NFP. In 2024 members represented 96% of oil products placed on market • CYCLEVIA is currently the only PRO currently approved for this sector	**PROs** This is a government-run scheme receiving and distributing funds to approved processors. By definition the PRO is the Australian Tax Office
Regulator • ADEME - The French Agency for Ecological Transition – is responsible for policy • Compliance is managed by DGPR	**Regulator** • The scheme is underpinned by multiple Acts and regulations. The Australian Taxation Office is responsible for administration while DCCEEW and Treasury provide policy oversight
Effectiveness • In 2024 the scheme collected 240 kt of oils, achieving • A collection rate of 58% (above regulatory targets) • A regeneration/recycling rate of 87% Source: Cycle 2024: CYCLEVIA's Annual Report	**Effectiveness** The most recent review found that: • In 2023-24 scheme collected 367 Ml used oil; collection rates 50-65% sales since 2009-10, peaking at 65% in 2021-22. (Theoretical maximum used oil collection rate is around 65%) The recovery rate for re-refined oil was 50% of total sales in 2023- 24, and 78% of used oil generated.

Key differences

- The French scheme is administered by a NFP industry-run PRO; the Australian scheme is mandatory government-run.
- The French scheme has broader scope – from 2026 it will cover oil containers as well as used oil. In Australia oil containers are covered by packaging regulations and APCO.
- CYCLEVIA fees are eco-modulated to reward sustainable design (discounts for eco-labelled, penalties for hazardous), while Australia applies a flat 14.2c/L regardless of impact.

The French scheme has the flexibility to evolve with changing technologies and to engage the broader industry, e.g., CYCLEVIA now includes almost all French automotive manufacturers.

4 KEY FEATURES FOR SUCCESSFULL EPR - LEGISLATION AND REGULATION

Having described challenges for Australia in Section 3, this section covers the key features for successful EPR which include:

- Effective system coordination with clear roles and responsibilities
- Overarching light touch EPR legislation that defines essential roles and responsibilities
- Detailed regulations that set scope, governance, reporting, timeframes and targets.

The World Bank notes in its 2025 EPR report on ASEAN countries, that EPR only delivers results if there are regulations and a regulator to enforce or penalise producers if they don't comply or join a PRO under contract with government. As Australia shows very few companies will voluntarily join a PRO, and tiny PROs have no capacity to incentivise new industry trends against companies' commercial interest for market share and profit. Furthermore, without EPR and a strong regulator, governments have no legal footing with industry sectors or producers for them to lean into circular policy or strategic targets. And while voluntary PROs may have responsibility via ACCC authorisation, they have little to no power to influence product design or recycled content.

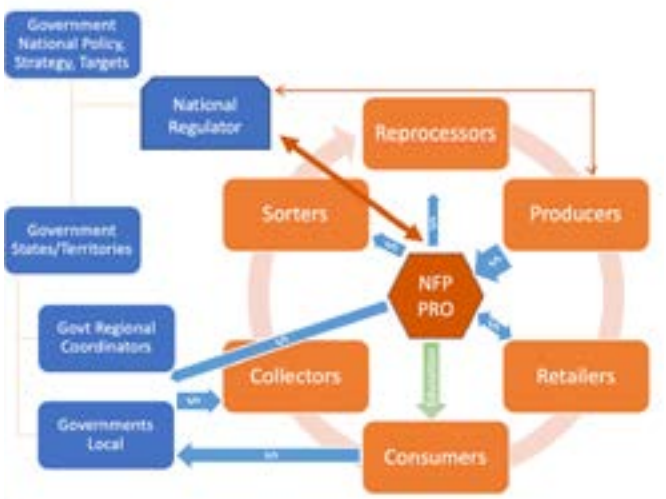


Figure 8 Key elements for success: EPR laws with a PRO and Regulator (Millicer, 2026)

The essential elements in EPR legislation and regulation are outlined below. Some are aligned to EXPRA Golden Rules for EPR success (Figure 4).

4.1 EFFECTIVE SYSTEM COORDINATION

Australia's current underfunded system was illustrated in Figure 7, and it is a very different diagram to Figure 8. Figure 8 shows the three essential parts performing their regulated roles:

1. governments forming policies and laws for mandatory EPR,
2. national PRO entity as system coordinator and
3. a national Regulator.

The diagram also shows the typical financial flows and therefore reporting lines of accountability between parties. Rather like an orchestra conductor this system optimises return on funds invested: the PRO receives levies from liable producers along with their data, and it contracts and coordinates the flow of materials and pays funds for difference in costs for ever greater circularity and

Benefits with EPR laws, PRO and Regulator

- System is coordinated by PRO and Regulator with agreements, targets, data records and producer levies
- Materials flow and are measured
- Equitable, responsive distribution of costs and responsibilities amongst producers, consumers, retailers, governments and supply chain entities
- Reports by NFP PRO and contracted parties provides transparency for improved practices, policies, targets.
- Circular system

= Highly productive, low waste, equitable system and economically viable PRO able to scale up, invest and respond to market conditions.

productivity. The PRO and all obliged producers report to a national regulator on their compliance with government targets and regulated requirements. (The OECD Guidance report on EPR from 2016 echoes this structure Figure 5). Done well the benefits are significant and ongoing.

4.2 CLEAR SEPARATION OF ROLES AND RESPONSIBILITIES FOR IMPROVED PRODUCTIVITY

The first of EXPRA's 12 Golden Rules calls for a clear separation of roles and responsibilities of all relevant actors involved. It is the first priority because it sets the foundations for legislators, PROs and regulators to minimise confusion, legal ramifications down the track, and to streamline processes and lower costs.

The RaWR Act lists three models, yet emerging consensus backs industry-led EPR schemes as the best approach

The RaWR Act includes three different PRO models, whereas the NSW Act and regulations are explicit and clear specifying one, being industry-led schemes. The many published statements by federal ministers and the formation of the Minister's List and funding programs since 2019 infers a preference for industry-led PROs. It appears that:

1. Governments in Australia (state and federal) do not intend to be the PRO running product stewardship schemes in the future (not repeating the government's Oil Stewardship model)
2. Industry-led entities will run national priority product schemes in the future
3. Industry and all governments have recognised the need for voluntary national schemes on priority products to be regulated nationally.

It will be useful for policy statements to clarify this strategic direction on EPR regarding regulations, regulator and preferred model of PROs.

Agreement on national and/or state-based EPR regulation

The national RaWR Act already enables the Minister to rule for a national scheme, form detailed regulations for producers of that priority product and appoint an industry-led PRO that can raise levies and provide services. Other nations pursue nationally consistent laws and regulations for EPR for greater impact and oversight of schemes even when states/provinces traditionally have constitutional authority for waste. It is useful to consider Belgium given their similar federated constitution.

4.2.1 Case study: Belgium's EPR legal framework provides a useful model for Australia

In 1990s Belgian governments and industry undertook serious work to form a workable EPR system. An expensive national beverage eco-tax in 1993 prompted industry in 1995 to form an association, Fost Plus. In 1996 the government agreed that members of Fost Plus would be exempt from the eco-tax so long as they and Fost Plus adhered to the targets being set in the new inter-regional legislation (a cooperation agreement underway between the regions). The regional parliaments passed the cooperation agreement in 1996, and it entered into force in 1997, at same time as the governments established their national Interregional Packaging Commission as the national regulator with delegated powers. Fost Plus was accredited as NFP PRO that same year.

The Belgian agreement sets out the allocation of roles and responsibilities, their processes of forming new actions for improvements and targets. This well-structured arrangement has enabled Belgium to continue to innovate, test and expand their packaging scheme achieving one of the highest packaging recycling rates in the world nearly 80% p/a.

After nearly 30 years, in 2025, all Belgian governments agreed that the regulatory responsibility for all other national PRO schemes (still regulated at provincial levels) would move to the Commission. They also agreed to legislate to streamline the process for the Commission to pursue non-compliant producers. The Commission will no longer have to transmit official reports to the Public Prosecutor's office, rather the Commission will have the power to administer fines, as well as pursue non-payment of PRO membership fees (for more on the Regulator, board governance and fines this see Section 6).[55]

The Belgian case study, like Canada and other federated nations, prove that constitutional responsibilities can be delegated up to national level if required without being a barrier to regional trials, variations and long-term benefits. Also, that governments and industry-run NFP PROs can work constructively together on EPR targets when there are clear roles and responsibilities.

In a positive sign of movement to a national approach and ideally national regulations, the March 2026 EMM Communique announced 'officials are to work together to draft an intergovernmental agreement to deliver options for nationally consistent product stewardship arrangements' for the next EMM.[56]

4.3 PRIORITY ELEMENTS TO BE INCLUDED IN LEGISLATION FOR EFFECTIVE EPR

International examples of successful EPR legislation specify the following additional essential interlocking components to minimise loopholes and non-compliance risks.[57] They are as follows:

1. All producers of products, local and imported, manufacturer, distributor, seller via retail or online, are equally responsible for the management of their products (EXPRA Rule f, equal treatment of producers regardless of origin or size)
2. Producers register each year with a national government and/ or NFP registration body and declare/report on types and quantities of product placed on the market during a specific period using a secure reporting system (EXPRA reporting obligations Rule e)
3. Producers are obliged to finance the environmentally sound management of their product. All producers are equally obliged, and depending upon the law are required to join a PRO, or in some instances can choose to eiher join a PRO or act equally and independently (cover costs for safe and legal management of the product) (EXPRA cost coverage Rule i)
4. Producers and PROs are penalised if not compliant (EXPRA enforcement Rule l)
5. Producers ensure the product complies with other legislation e.g., hazard, safety etc.

Essentially, for effectiveness, legislation also specifies the following:

1. The regulator for EPR schemes and producers, such as an EPA
2. That the Minister can form regulations and rules as required.

Overarching 'light touch' legislation delegates to regulations the detail which gives the Minister and industries the capacity to regularly revise and reset scope, performance, reporting etc as required. These regulations are then translated by the regulator into more detailed agreements between the government and PRO over successive years to pursue ever better results and efficiencies.

Regarding the above, Australia only mandates equal responsibility, reporting and financing obligations in regulated schemes (oil, TVC, and CDS, and to some extent packaging which suffers from extensive free riding). As already covered, Australia is yet to designate one consistent regulator for schemes. Australia has not yet used regulations to reset the scope of existing regulated schemes. The Minister did regulate to move the oil stewardship scheme to a flat fee structure in 2020.[58]

4.4 NFP PROs ONLY

While light-touch flexible legislation is recommended, a growing number of countries are using regulations to stipulate essential features, especially that PROs are to be not-for-profit industry-led member-based entities, not commercial entities. This aligns with EXPRA's Golden Rule c).

This is not a left or right political alignment; rather it indicates governments have decided they want visibility and trust in the fees, budgets and actions of PROs and to pursue continuous improvement. This is a result of recent findings of fraud, criminal activity, lack of accountability for fees and destination and quality material in several countries that have commercial competing PROs. It also reflects a determination to use EPR and NFP PROs as an extension and ally in delivering on government policies and targets and in providing unprofitable public services such as national education campaigns.

The OECD Guidance on EPR in 2016 identified the trends and risks associated with the commercial waste sector becoming more concentrated and vertically integrated, and referenced courts that have reviewed alleged anti-competitive behaviour in EPR supply chains. The OECD urged governments to consider competition issues amongst producers, collectors, sorters and treatment markets alike. This is equally important amongst commercial owners and producers represented by the PRO, and the commercial service providers. They also suggested that 'EPR schemes should allow single PROs only when it can be demonstrated that the benefits outweigh the costs of less competition'.

There are concerns expressed that single PROs, as monopolies, may be less efficient and result in higher prices charged to producers that is passed on to customers. However, a report published by EUROPEN (EU packaging organisation) in June 2026 of all EU PROs found no link in price of levies charged between legal models or number of competing PROs[59]. There are several countries that have multiple PROs operating in the same product category, see Table 7, and mostly they are NFP. Where there are competing and commercial PROs, additional vigilance and requirements are required. In Austria with two PROs for packaging (one being NFP and one FP), for example, the government requires:

- Seamless public facing communications and branding for whole scheme
- Shared data between PROs and government
- Shared infrastructure for sorting and processing
- Rebalancing costs for sorting and scheme proportional to membership share of each PRO (according to monthly audits at sorting facilities).

Such rebalancing of costs and income between PROs is feasible but problematic and requires considerable auditing and a central data capture system and it does not

necessarily result in improved services, results or lower costs. Research for this report reveals that governments prefer one NFP PRO, and some have allowed after years with one PRO for two-three other NFP PROs to form when they complement in broader scope. Governments that have opted for single PROs sometimes allow obliged producers to choose to join or be independent on the proviso they must meet all the same requirements as the PRO but they resist multiples of PROs in the same product category. Reasons for preferring one NFP PRO is that the government policy team and regulators can more easily specify, monitor and control the scope and level of services provided by the PRO as the expert coordinator, particularly for product categories like packaging. For example, in the case of Belgium there is careful oversight of Fost Plus, its standards, contracts, financial accounts, and approvals of forward plans. Tough negotiations ensure a balance between the levy price paid by producers and service for the benefit of citizens.

4.4.1 Case Study: Slovenia – environmental and legal mess with commercial PROs

Slovenia has had serious problems with their EPR packaging system for nearly two decades with big costs to municipalities and taxpayers in court fees, clean up and loss of trust. Final resolution was achieved through the European Court of Justice ruling in mid-2025 in the government's favour.

Slovenia's market-driven EPR system had allowed several PROs to operate under a 'membership share' system (similar to Austria). Under this system the government annually allocated quotas to each PRO based upon their membership share, however, this legal arrangement was subject to litigation for over a decade.[60]

These legal disputes resulted in councils paying extra for waste to be collected and 'stored' on public sites, and in 2018 and 2020 the national government paid €16.5M for cleanup, with 80% recyclables sent for incineration.

These challenges were compounded by the EPR system being, according to the Slovenian National Court of Audit, 'opaque, especially in terms of costs, and lacking mechanisms that would incentivise producers to choose more sustainable packaging'. The PROs were able to set unregulated prices for producer's fees and were not obliged to obtain or report costs.

Other systemic problems included costs not being appropriately distributed amongst parties, opaque or unfair contracts and business connections between PROs and subcontractors, and potential breaches of waste laws.

Due to vertical integration in the industry and within some PROs, some commercial service providers were both PROs and service providers, e.g. collectors, to all PROs. This triggered the Slovenian Competition Agency in 2019 to accuse four companies of operating a cartel.

Lack of good scheme design, laws, regulations and clear allocation of roles and responsibilities meant Slovenian households continued to pay all costs for packaging waste collection even with EPR and multiple competing PROs.

In 2022 the Slovenian Government passed a new Act (ZVO-2) to start afresh, however, this new Act was challenged by the existing PROs in the nation's Constitutional Court. In the end, it proceeded to the European Court of Justice (ECJ) where litigants claimed the government did not have the authority to introduce a compulsory, single not-for-profit collective organisation.[61] The ECJ's landmark ruling upheld 'the state's ability to design single operator regime with not-for-profit status to achieve environmental objectives, within the framework of Services of General Economic Interest'. This ruling removed doubts in legal circles and may contribute to further changes in other nations.

Figure 9 Packaging waste being stored and collected by PRO subcontractor (Slovenia, photo undated)

4.4.2 Case study: Poland replaces multiple commercial PROs with a centralised system

For many similar reasons to the mess in Slovenia, in 2025 Poland's government published a new Act ending their profusion of 15 competing market-orientated commercial packaging PROs that 'contributed only ~10% to household packaging waste management costs'.[62] The government also simultaneously committed to pursue reform of single use plastics, packaging and the waste industry. The Polish government is cancelling all existing multiple PROs to transition through 2026-28 to one, NFP, fully state-controlled model where eco-modulated fees will be collected and reinvested in operations reducing costs for ratepayers and municipalities.[63]

There has been ongoing pressure from commercial companies against these solo or NFP PRO stipulations. However, a lot has evolved since the OECD publication in 2016. It is telling that in 2023-25 at least four nations changed their legislation and regulations to end or control commercial and/or competing packaging PROs. This includes Poland, Slovenia, Germany and UK, and it is possible this may become a trend given this report indicating solo NFP PROs deliver better results.

These case studies illustrate the importance of good design and the high costs from bad design of EPR laws, regulations and regulators. It also shows that single operator, not-for-profit PROs avoid many of the challenges of commercial and competing PROs. These case studies show that EPR and PROs should:

1. be in the public and environmental interest
2. be used if the market has failed to meet public needs adequately
3. not be viewed through normal market frameworks. PROs are to contract on behalf of members and governments with the commercial markets.

Table 6 PRO schemes for packaging and clothing by country (NFP, FP, and voluntary systems)

VOLUNTARY PACKAGING	NFP REGULATED PROS PACKAGING	FP REGULATED PROS PACKAGING	VOLUNTARY CLOTHING	NFP REGULATED PROS CLOTHING	FP REGULATED PROS CLOTHING
Australia New Zealand	South Africa Kenya Saudi Arabia Chile China Canada Italy Netherlands Spain Belgium Czechia France Israel Poland* Slovenia* UK*	Austria Romania Bulgaria Germany#	Australia Japan	France Sweden British Columbia Quebec South Korea Netherlands California New York Chile	

*Indicates newly formed single NFP PROs away from competing FP PROs. #Indicates overarching NFP reporting entity for PROs.

Table 7 Recycling results from single, multiple and government household packaging schemes in EU (extract from EUROPEN report, 2026

MARKET STRUCTURE IN PRACTICE (2023)	OVERALL PACKAGING RECYCLING RATE (RANGES %) (2023)
Single non-competing PROs (7)	79.9 - 61.0, average 71.8
Multiple PROs (18)	73.6 - 37.3, average 62.2%
State monopoly (2)	51.9 - 42.8, average 47.4%

This table contains data that pre-dates the change to EPR laws in Poland and Slovenia.

As a research exercise to identify the preference of nations upon voluntary or mandatory EPR, and whether they opted for NFP vs FP PROs, a review was done of 30 random countries. Table 6 and Table 7 show the results. These tables indicate the overwhelming preference of nations is for regulated NFP PROs in both packaging 75% and clothing 100% versus FP PROs 25% and 0%, total 87% preference for NFP. The June 2026 EUROPEN Report identified that 'the strongest-performing EPR systems are those built on transparent governance, robust data and well-designed incentives'[64]. Notably the report found some correlation in recycling performance with single, multiple or government run schemes (Table 7), and that the greatest benefit of singular PROs was the best level transparency, direct influence and accountability. Australia is an outlier having voluntary schemes and should follow international best practice regulation choosing only NFP, and preferably singular PROs.

4.5 OWNERSHIP AND GOVERNANCE OF EPR

EXPRA is explicit that regulations specify Golden Rule b) the ownership of the EPR is limited to the obliged Producers and value chain, with no conflicts of interest, and Rule c) the PRO is not-for-profit in structure.

Australian regulations are strangely silent on preferred governance and legal structure of PROs

EXPRA recommends that the producers paying the fees as scheme members are represented by directors of the PRO board which is NFP. There are three variations to this model:

1. Directors are executives or directors of member companies who pay the levies (and represent different sizes or parts of the producer cohort)
2. Directors are executives or directors from levy paying members plus related industry associations, e.g. of the metal canning association, or the fashion or retail association
3. Directors include independent chair and at least one other independent director.

Numerous reports and investigations have been undertaken into good governance and conflicts of interest in Australia, from the Productivity Commission to Australian Securities and Investment Commission, to ACCC. This is particularly important as PROs are responsible for setting standards through the supply chain and paying significant funds through contracts. Conflict of interest must be minimised with board directors not gaining advantage in investments or approvals of contracts.

This is consistent with governing boards of most industry trade and professional associations, and government entities – directors are elected and/or selected to represent the interests of the entity. This is particularly the case as more policy targets and public interest obligations are being placed upon PROs and there is concern about upon the commercial interests of directors outside of PRO boards with increased vertical integration and consolidation of businesses.

4.5.1 Case study: Czech PRO EkoKom ownership and governance

Since founding in 1997, Eko-Kom, has been authorised by the Czech government to function as the national packaging compliance scheme for non-economically viable packaging, and supports the Czech Republic's circular economy goals. Eko Kom is a NFP with 9 directors representing members ensuring compliance with national and EU packaging regulations. A Stakeholder Advisory Committee facilitates industry discussion and stakeholder engagement. Eko Kom has 10 shareholders, comprising four packaging material producers and six fillers. Having learned from experience there are no recyclers, waste or freight members permitted on the board given they have pecuniary interest in the contracts and investments of the PRO.

Given recent fluctuations in price of secondary raw materials and to ensure continued operations of Czechia's packaging collection and recycling system, Eko Kom has been directed by the government to expand its statutory reserve to cover at least 50% of total costs of the company by 2025. This has meant that the Czech packaging recycling system will be stable and flexible in coming years whatever risks and turmoils arise in trade, whilst continuing to operate for government, public and industry benefit.[66]

Australian regulations are silent on preferred ownership and shareholders of PROs

There is also the matter of PRO shareholders. A number of PROs in Australia and overseas are established with funds provided by foundational members, sometimes only a few members investing millions in the start-up phase. Whilst this means PROs can start quickly, run operations and hire staff, this may create additional challenges in repaying interest, paying down the debt with obligations to shareholders who are likely directors on the board and increased pressures or conflicts of interest.

An alternative is for government to be the lender for the start-up phase to cover start-up costs. There is a clear precedent. In 2000, the Australian Government contributed $34.5M over 7 years to establish the Oil Stewardship scheme.[65] The Australian Government has also other reputable loan programs for public-benefit initiatives such as renewable energy with the Clean Energy Finance Corporation. There is merit to this approach as it minimises risk of skewed priorities and conflicts of interest forming during PRO crucial start-up phase. It also ensures the government holds to the date of regulation and

recoups the funds from the PRO with close commitment of the board and industry.

The success of the sole national NFP PRO packaging scheme in Czech Republic, EkoKom, demonstrates that producer-led boards and stakeholder engagement can create sustainable and stable operations for benefit of government, public and the overall industry.

4.6 SELECTION AND APPOINTMENT OF PROs

As this report sets out, a key distinguishing difference is the quick and efficient process used overseas to regulate EPR and appoint a PRO. It is normal for regulation to be formulated at the same time as PROs are being established with the result that a scheme typically formally commences within 2-5 years of work commencing.

Given the models for EPR and PROs are consistent and accepted, namely regulated industry-led NFP with governing board, industry sectors quickly coalesce around to form a PRO. The PRO starts small in area of greatest need and opportunity for success according to the particular product supply chain. Australia can adopt this method going forward to ensure PROs can quickly form, grow and offer fuller services rather than wait many years for comprehensive sectoral coverage or regulation.[67] Proving that it is a suitable legal entity and NFP PRO over 13 years, for example, TSA has already lodged three comprehensive submissions to ACCC and been successfully granted three authorisations (2013, 2018, 2024) and will have to do so again before its current authorisation expires in 2027. After 13 years, TSA and the tyre sector is still awaiting government national regulation.

4.7 SETTING MEASURABLE TARGETS

The 'holy grail' is to decouple economic growth from waste generation without resorting to incineration – a true sign of high productivity. It is the challenge of the 21st century. Various nations are on this path using various policy measures via laws and regulations, including authorising PROs to incentivise recycled content, as well as regulating for minimum levels of eco-procurement by governments and regulating the eco-design features of products sold in their nations. Netherlands has reached 24.5% circularity according to the independent consultants Circle Economy[68]. This has been achieved over years of methodical measurement, data collation, confidential sharing and analysis. In many countries NFP PROs and obliged producers are required by regulation to respond to government targets and submit both reports of review and forward plans on regular basis e.g. annual and up to

4.7.1 Case studies: Setting targets with confidence requires quality data

As written in more detail in Section 2.2.3 after 28 years, the UK has retrofitted their packaging system and passed a new Act for EPR. In 2025-6 the government tendered and appointed an overarching NFP independent PRO entity, PackUK, to manage the national packaging system going forward. Up until now, it was a system of multiple, for-profit entities, however, the UK government was unable to see into and have confidence in the results being presented by its Packaging Recycling Note (PRN) companies[69], rebates had been paid and evidence of fraud had hit headlines. In 2024-25 Germany, also having multiple, competing for profit PROs also began forming a national centralised independent NFP 'black box' data receival system to improve transparency and accountability.

Belgium has a different system; they opted for single NFP PROs and high transparency from the start. The Interregional Commission receives each year registration details from obliged companies of their product types and quantities. They also have access to PRO Fost Plus' data on an ongoing basis which covers not only data from obliged producers but also the throughput quantities in the system with contractors. They can monitor the reported performance and anomalies with all parties from local councils to collectors, recyclers and independent auditor results. This access to aggregated quality data and trends enables the PRO, Commission, the government and broader industry to have a good understanding and to confidently design EPR targets and broader policy and program measures that will assist steer for improved productivity, circularity and lower costs. Czechia's solo PRO for packaging, EkoKom has a slightly different system of reporting obligations with its contractors (councils, sorters, recyclers) but with similar assurance on material and financial movements.

In the Netherlands the Government had such reliable data from different schemes and sources it was able to formulate a comprehensive 2023-2030 Circular Economy Strategy that included agreed sub-strategies for priority sectors with specific measurable targets and allocated responsibilities upon many players including industry. This was possible because through their multiple EPR schemes and PROs for electronic goods, packaging, vehicles, etc and sector working groups they were able to map, model, negotiate on priorities, what is feasible and balance costs with rewards.

five-year plans. This requirement enables government and PROs to plan and pursue specific targets by specific dates (EXPRA Rule d).

Targets in agreements tend to become more specific over time focusing on new areas for action to deliver improved circular products and public benefit and can include:

- Collection rates, coverage, standardisation of collections
- Rates on recycling, reuse, recycled content, repair and losses
- Public education campaigns and rates of behaviour change
- Levy rate ranges including on eco-modulation, basic fees
- Details on new trials and projects
- Details on governance and operations eg studies, audits, data accuracy, reporting, financial reserves.

The number of EU Member States forming eco-modulated bonuses to support post-consumer recycled (PCR) content in plastic packaging is growing from a small base. This is in anticipation of the mandatory minimum levels effective from 2030 for all EU as stipulated in the Packaging and Packaging Waste Regulations. The French Government has gone further applying PCR regulations with a set bonus to all their EPR schemes, including electronics, to minimise distortion and support comprehensive access and equity in markets and circular supply chains.

Australia has the capacity to do this via its EPR frameworks and regulations for PROs. This would help avoid the reputational damage caused in 2019 in setting unrealistic national 2025 targets for waste reduction and packaging; none of which have been achieved. Australia will struggle to set and achieve productivity targets while EPR is voluntary, regulations are not utilised with existing schemes and data is not centralised.

It is noted that the recently published NSW Environmental Protection Agency (EPA) EPR regulations for batteries are not aligned with international best practice as they do not specify PROs must be NFP and operate in public interest. The NSW EPA regulations also leave the door open for multiple, competing PROs to start and gain approval in the same product category, and at any time, providing no surety to PROs or their contractors or members. It may be setting a dangerous precedent akin to the situation in Slovenia or UK for churn and obfuscation, particularly if different state-based schemes feature different ownership and scope.

Australia has an opportunity to align with global best national productivity, decoupling from waste and emissions, by adopting standard EPR legal and regulatory frameworks and as offered by EXPRA's Golden Rules.

4.8 SUPPLY CHAIN REPORTING AND EQUAL TREATMENT FOR PRODUCERS

EXPRA Golden Rule f) calls for equal treatment of all producers regardless of origin or size, which means regulations address both online, imports and local producers in fees and responsibilities. Producers pay according to the product and quantity sold in the market in the previous period, and this may be quarterly or annual payment depending upon size and PRO requirements.

EXPRA's Golden Rule e) calls for 'reporting obligations of all actors in the packaging lifecycle'. Within five years of formation, by 2004 Czechia's national packaging PRO Eko-Kom was able report it had contracts and data coming from 21,000 producer clients, 4,450 councils, 100 contract service providers and that there were 100,000 collection containers accessible to 97% consumers.[70] Over years this has been digitised and standardised providing Eko-Kom good insight into performance and trends in packaging and the supply chain. This has enabled them to reduce costs, red tape, streamline reporting whilst improving education services, fill collection and processing gaps for more material to be sold back into the local and EU markets displacing virgin material. Czechia's packaging recycling rate in 2023 was 74.8% and subsidised council recycling collection rates are low at $30-50 per person/yr..

Australia's challenge is that reporting is patchy, not comprehensive of the actors in the supply chain, and data is fractured between states and between national and state/territory levels. Research undertaken for this report reveals that it is customary overseas for detailed reporting, budgets and modelling analysis to be shared only between a NFP PRO and the Regulator and with government policy makers to guide decisions and determine performance and compliance of all parties. High level summary reports are published for public viewing, and the checks and balances are built into the system. It is difficult to find reports with similar detail as for example, Australia's voluntary PROs in their applications to ACCC[71].

Australia is an outlier for having imposed the same very strict ACCC competition and reporting rules upon NFP PROs as upon billion-dollar corporate entities. Aside from disproportionate and significant legal costs and organisational hurdles to prepare these long documents for ACCC, the consequence of this is that Australian voluntary PROs have their data, budgets, strategic plans and operational details accessible to potential competitors, free riders and tenderers, placing them at further disadvantage. This approach has significant costs, potential serious consequences, is highly adversarial and still does not result in regulated EPR or progress with government policies or targets.

4.9 CONCLUSION

Evidence from EPR systems overseas show that:

- Mandatory EPR legislation with industry-led schemes are the norm in comparable nations, with a growing number of developing nations in South America and Africa adopting mandatory EPR
- National EPR legislation, national PRO and national regulator is the norm and preferred
- Those nations with federated provinces/states have aligned their EPR laws and established national collaborative structures becoming the equivalent of national EPR laws, regulations and regulators
- The majority of nations and schemes reviewed in this study have only NFP PROs, not commercial PROs. Where there are multiple PROs, they tend to be NFP.
- Four nations undertook major reform fixing their legislation in 2023-25 to end commercial multiple competing PROs and put in place single NFP entity to run national scheme, or in case of Germany to be a 'black box' for data. They all did so to improve transparency, accountability, minimise fraud, vertical vested interests and criminal activity.
- Nations that have mandated EPR and single NFP PROs achieve greater collaboration between governments and PROs on policy alignment, formation of detailed targets, higher compliance and data transparency. They also generally have higher rates of performance.
- Australia can benefit from PROs rolling out improved reporting and accountability in priority product supply chains.
- There is value in a review being undertaken into processes used in other nations for the reporting requirements for NFP PROs given the costly impact of current and repeat ACCC application requirements upon all parties.

Photo: Reclaimed mattress springs, courtesy, Australian Bedding Stewardship Council Limited

4.9.1 Case Study: Australia vs United States - Mattresses

UNITED STATES: MATTRESS RECYCLING COUNCIL (MRC)	**AUSTRALIA:** AUSTRALIAN BEDDING STEWARDSHIP COUNCIL (ABSC)
Scope • Mattresses and foundations (box springs) • Covers all mattresses sold in participating states (CA, CT, RI, OR)	**Scope** • Mattresses only (active scheme) • Bedding / Top of Bed: not yet operational (working group commenced 2026) • Includes residential and some commercial mattresses (not disaggregated)
History • 2010 – California mattress stewardship law passed (first globally) • 2012 – MRC operational in California • 2013 – Connecticut legislation • 2016 – Rhode Island legislation • 2025 – Oregon scheme commenced • 2026 – Virginia bill passed legislature but vetoed (cost-of-living concerns)	**History** • Pre-2020 – fragmented recycling activity, no national scheme • ~2021–2022 – ABSC voluntary scheme established • 2024–25 – Scheme operating with hybrid funding model (revenue-based levy) • 2026 – Transition underway to per-unit manufacturer levy • 2026 – Top of Bed working group established (no scheme yet)
Policy framework Mandatory EPR, state-based legislation: o Producers must participate in approved stewardship scheme (MRC) o Per-unit visible fee charged to consumers at point of sale o State-approved stewardship plans required o Mandatory reporting, targets, and compliance mechanisms o Full market coverage within participating states	**Policy framework** Voluntary EPR, industry-led: o No mandated participation or national regulation o Hybrid funding model (transitioning to per-unit levy) o No enforceable national collection or recycling targets o No producer registration requirement o Significant free riding from unregulated imports and online sellers
PROs • Single PRO • Mandatory participation for all producers in covered states • Centralised system design, funding, and reporting	**PROs** • Voluntary scheme operator • Not all producers are members • No legal requirement to join • Limited coordination across broader market
Regulator • State environmental agencies (e.g. CalRecycle in California) • Approve stewardship plans and enforce compliance.	**Regulator** • No dedicated regulator for mattresses • Federal government (DCCEEW) oversees broader product stewardship policy • No enforcement mechanism for participation.

Key differences
• Voluntary vs mandatory: Australia is voluntary; US schemes mandate full participation
• Coverage gap: ~40% free riding in Australia vs near 100% coverage in US
• Funding model: Australia shifting to per-unit levies; US already uses consistent fees visible to consumers
• Performance gap driven by collection, not processing:
  • Both systems recover **~50%** of processed material
  • US achieves higher recycling rate (37.5% vs 30%) due to broader collection coverage
• System maturity: US schemes are legislated and scaled; Aust remains early-stage and fragmented
• Cost-of-living politics: US fees are politically contested but enable system-wide funding.	

4.9.2 Case Study: TV and Computer Schemes – Australia vs Canada

BRITISH COLUMBIA, CANADA: EPR FOR ELECTRICAL AND ELECTRONIC PRODUCTS	**AUSTRALIA:** NATIONAL TELEVISION AND COMPUTER RECYCLING SCHEME (NTCRS)
Scope IT equipment, audiovisual or telecommunication devices, appliances, tools, lighting equipment, toys, monitoring & controlling, and medical devices, etc.	**Scope** TVs, computers, printers, monitors and IT peripherals only.
History • 2004 – Canada-wide Principles for Electronics Product Stewardship 2004 endorsed by Canadian Council of Ministers of the Environment (CCME) • 2009 – The electrical and electronic category in the Recycling Regulation amended to phase in an expanded list of products • 2025 – Regulation updated again to add more battery containing products such as decorations, signs, etc.	**History** • 2011 - Product Stewardship (Televisions and Computers) Regulations 2011 introduced under the Product Stewardship Act • 2020 – The Recycling and Waste Reduction Act 2020 ('RAWR Act') now governs the NTCRS • 2021 – Regulations updated under the Recycling and Waste Reduction (Product stewardship—televisions and computers) Rules ('Rules') • 2023 – DCCEEW Discussion Paper flagged changes including wider scope and replacing multiple PROs with a single administrator • 2026 – RAWR Act under statutory review
Policy framework Mandatory EPR, industry-led model: • BC Government mandates EPR through the Recycling Regulation under the Environment Management Act - electrical and electronic products are designated products • PROs must have an EPR plan approved by the regulator that outlines: o Recovery or capture targets o Collection system o Performance measures o Consultation with stakeholders o End-of-life management	**Policy framework** Mandatory EPR, industry-led model: • Australian government mandates producer responsibilities and establishes targets under the RAWR Act and E-waste Rules • The Rules require PROs to achieve 3 prescribed outcomes: o 'Reasonable access' to collection services, defined in detail o Recycling targets increasing over time (78% in 2025-26) o A material recovery target (90%).
PROs • 3 PROs all must be NFP, with Electronic Products Recycling Association (EPRA) the primary one • PROs collaborate through membership of Stewardship Agencies of BC (SABC)	**PROs** 5 PROs currently approved are a mix of for-profit and NFP: Activ Group Solutions, ANZRP, Ecocycle, Recycle Solutions, Sustainable Product Stewards.
Regulator Provincial government through a nominated 'Director' at BC Ministry Environment & Climate Change Strategy	**Regulator** The environment minister, with support from officials in DCCEEW

Key differences

- Both are supported by government regulation: Canadian provincial laws are harmonised nationally via Canada-wide Principles for Electronics Product Stewardship 2004 while the NTCRS is under national law.
- BC: PROs set targets via regulator-approved 5-year plans (updated after feedback)
- BC covers most battery/plug products; NTCRS scope remains limited/incomplete
- BC: PROs must be non-profit; Australia: can be for-profit and is a mix
- In both jurisdictions PROs require government approval and annual reporting. Review processes differ—BC requires a 5-year Project Plan approval, Australia reviews Arrangements after 5 years
- PROs in BC collaborate, e.g. on consumer education, as they tend to focus on different markets; PROs in Australia are competitive and do not collaborate, there is no consumer education program.
- There is no data available to compare recovery rates for the covered products for Aust or Canada.

5 PRODUCER RESPONSIBILITY ORGANISATIONS: ROLE AND INFLUENCE

Section 4 provided facts and case studies on legislation and regulation in other nations. This section demonstrates the impact of regulation and policy decisions upon the role, scope, capacity and performance of PRO schemes in Australia and overseas. Data analysis and case studies also illustrate Australia's great potential for improved productivity.

As mentioned in the Introduction, overseas PROs in Table 8 have been selected for comparison on the balance of relatively similar design, scope and most available data. As explained in the Section 4, almost all nations only have mandatory EPR, industry-led and NFP PROs. In some countries PROs are singular or there may be a few NFP PROs in the same category or overlapping categories.

5.1 PRO BUDGETS AND SCOPE: NEED-BASED DESIGN

PROs evolve with changing needs and circumstances

All PROs vary in scope, role and budget reflecting that nation's existing services, needs, and problems. EPR and PROs are established to fill gaps alongside private sector and governments to deliver necessary and/or new services. It is common for the scope and budgets of PROs to expand over time according to government directives to deal with other related products that need coordination and levy funding to fix economic gaps for improved circularity and to address market volatility.

Many of the overseas PROs included in this section have had their scope expanded over time. ReFashion PRO in France has expanded its remit from clothes to include footwear and household linen; Australia's Seamless is still focused on clothing only. The tyre stewardship program in BC Canada is responsible for more coordination, collection, processing and clean up than in Australia.

Many of Australia's PROs have limited capacity to evolve

As the cases studies in this report illustrate, Australia's existing PROs (both co-regulated and voluntary) are currently narrower in their scope than overseas counterparts and have little to no prospect of expanding or improving services until EPR regulations are formed or updated. The descriptions of overseas PROs show how they have financed and staffed their expanded programs in consultation and with the agreement of their governments, regulators and their members.

Table 8 Overseas PROs used for analysis of Australian EPR potential

PRODUCT	COUNTRY	PRO
Clothing	France	ReFashion
Mattresses	California, Connecticut and Rhode Island, US	Mattress Recycling Council
Tyres	British Columbia, Canada	Tire Stewardship
Batteries	Italy	Cobat RIPA
Packaging	Belgium	Fost Plus
Floor covering	California, US	CARE

5.2 PRO MEMBERS VS FREE RIDERS

Rules and regulators affect PRO funding and effectiveness

PRO member numbers are determined by the regulations and power of the regulator. No regulation or regulator means many free-riders and marginal financial capacity for a PRO. As is evident from case studies in this report, many comparable jurisdictions mandate producers must join the single government approved PRO. Such is the case with MRC in US states, tyres in Canada, oil Cyclevia in France. In some countries they may approve more than one NFP PRO for large categories, typically two-three, but never dozens.

Logically there should be a similar number of producer members between Australia and other nations (allowing for variations according to breadth of scope and number of PROs). As Figure 10 illustrates, even those nations with multiple NFP PROs in a product category, such as Cobat RIPA in Italy and ReFashion France, there is a clear pattern overseas regulated PROs have more members than Australia's voluntary PROs. This is the case even when the PROs function across only one state/province such as Tires in BC Canada (2059 vs 1751) or CARE flooring California (94 vs 17).

Single vs multiple PRO models: effects on efficiency and capacity to invest

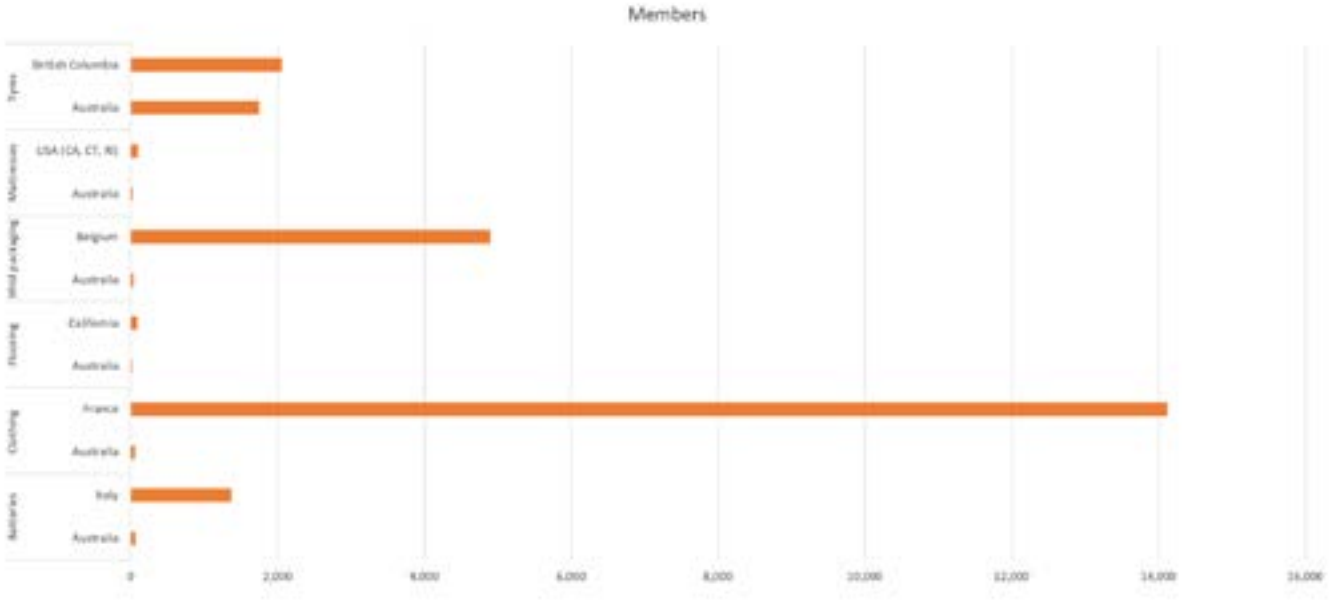
As shown in Table 6 and Table 7, most countries choose to regulate for NFP industry-run PROs and many prefer one PRO per product category. It is a fact that the more competing PROs in a product category, the smaller the budget each PRO can invest in necessary infrastructure and services. Unless the government regulates for PROs to share activities such as logistics and education campaigns, collaboration for efficiency and public benefit is unlikely to occur. This is the case with the lack of collaboration amongst Australia's PROs in the National TV and Computer Recycling Scheme.

Regulation and regulators are the key factors. Even Italy which allowed for three other NFP PROs for batteries and related products 20 years ago, long-running Cobat for example has 1,370 members to BSC's 64, a ratio of 21:1. The French NFP PRO for clothing has expanded its remit since formation in 2007 to include responsibility for footwear and household linen and its members have grown providing ReFashion even greater capacity for efficiency and investment. It has 14,120 member companies whereas Seamless, the Australian voluntary NFP PRO for clothing only has 56, a ratio of 252:1.

Membership numbers as a driver of PRO performance

With steady and high participation from liable companies, PROs benefit from strong budgets, staffing, data, insight into trends and effective strategic planning and management capabilities. A large proportion of members supported by mandatory EPR regulations creates stable membership allowing staff resources to be usefully allocated to delivering services rather than chasing and acquiring new members. This ensures that PROs are not expected or pressured to do perverse deals to minimise membership losses or churn.

Figure 10 Number of producers paying levies to PROs (members)



5.3 IMPACT OF WELL-FUNDED PROs IN NATIONAL INVESTMENTS

Figure 11 illustrates the revenue available to PROs to invest each year in their jurisdiction and therefore the potential scale of investment that could be injected into the Australian economy when producer responsibility is regulated. There is a clear pattern here: overseas PROs far outdo Australia's PROs on their budgets and therefore deliver great results, and budgets vary considerably according to the value and demand for the product. Italy's battery PRO Cobat illustrates the difference when a PRO can form new supply chains that stimulate sufficient market investment confidence in quality recovered material that their levies and role are reduced. Where available figures are from 2024-25, some are 2023-24.

PRO revenue determines investment and results

BC Canada's mandatory tyre PRO had $32M to invest in its geographically large province in 2024-25 whereas Australia's TSA had $7.4M for all Australia, a ratio of 4.3: 1. When viewed relative to the population serviced by each PRO the comparative financial capacity becomes stark. For example, BC's population is 6 million whereas Australia's is 28 million and therefore the PRO budget per capita becomes $5.30 in BC, whereas in Australia it is $0.26 per person per year.

With its reasonable and predictable annual budget, BC Tire Stewardship and its supply chain partners have been able to confidently invest over years in collections and infrastructure, recovering 100% of all tyres used across BC in 2024-25 including dumped tyres and achieve a mechanical recycling rate of 86%, all of which was reprocessed in facilities in BC providing stable employment and removing all headaches for governments and businesses. By comparison, as Section 5.7 shows Australia achieves 17% mechanical recycling of used tyres, large quantities are used in waste to energy, and regular media stories feature dumped tyres and the cost to taxpayers and local councils. It is impossible for Australia and the tyre sector to achieve comparable services, investments, productivity or positive environmental impact; and BC shows the future with good regulations.

PRO budgets influence savings in public budgets

As a category, packaging is more diverse, complex and requires a bigger budget than tyres. Belgium's Fost Plus is a global leader with almost 80% recycling of household packaging. Their budget in 2024-25 was AUS$569M as they completed co-investment in new sorting and processing facilities so they could continue pushing the boundaries in collecting and recycling yet more difficult packaging formats such as polypropylene bottle lids and soft plastic at scale for sale into the EU market. Belgian households receive a full nationally coordinated service, they do not pay for recycling services through their rates,

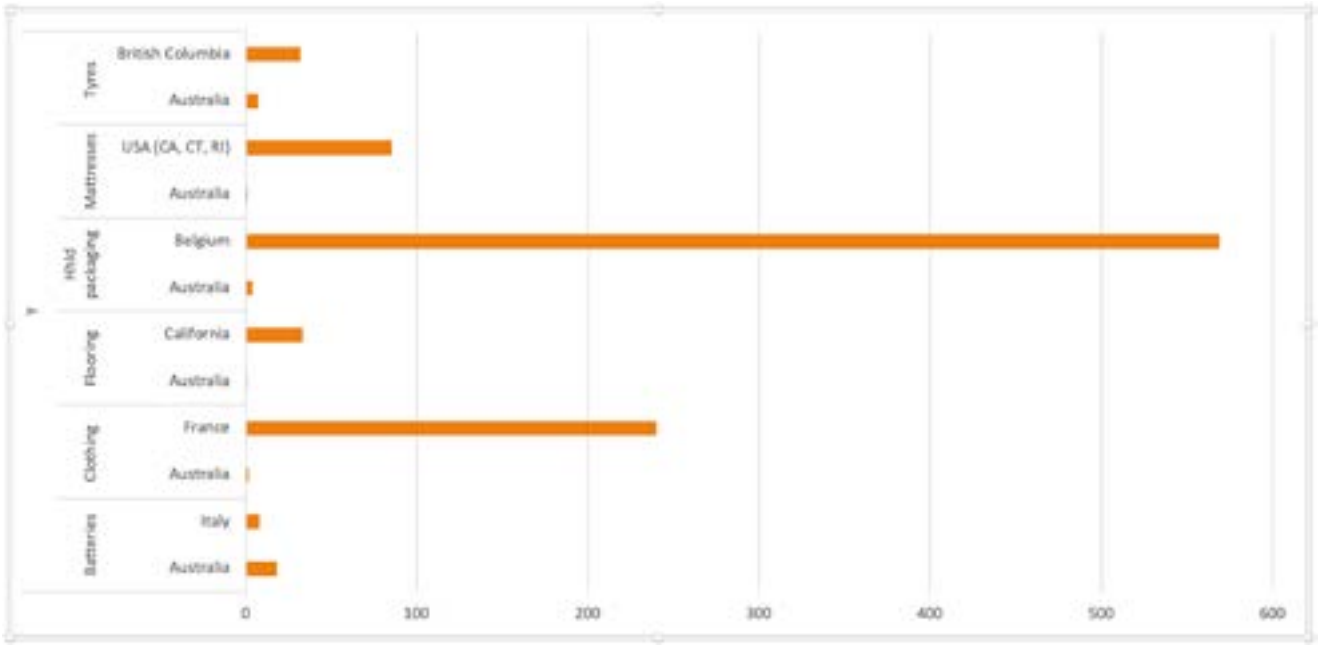
5.3.1 Case Study: Italy – Battery PRO forms new supply chains for private sector confidence

Cobat, possibly the first Mandatory Consortium PRO in the world established in 1988 for lead accumulators, has become a diversified sophisticated group of NFP PRO entities.[72] As Cobat RIPA they collect diverse battery sizes and chemistries, including since 2020 also collecting electric and hybrid vehicle batteries. After 20 years of EPR schemes in 2008 the Italian Government decided to liberalise the PRO system and enable competing NFP PROs, and Cobat used their expertise to diversify as well. There is now Cobat RAEE for electrical and electronic equipment including solar PV (est 2011), Cobat Tyre, Cobat Compsiti (for composite fibreglass and carbon) and Tessile (textiles).[73] [74]

In 2024 Cobat RIPA handled 40% of all-format batteries collected in Italy, and this revenue (Figure 11) reflects their 40% share of the national market.[75] Their results are impressive including in 2023 collecting 88,627 tonnes of handheld batteries from 15,053 sites (mainly retail returns).

Such has been the transformational influence of Cobat RIPA for the Italian battery sector that corporations have taken on responsibility for financing and running the recycling facilities with high-grade valuable material sold back into markets. Cobat is therefore no longer required to subsidise processing as it is paid by the recyclers for the feedstock. It now charges producers a reduced levy covering collection and coordination. Over 40 years Cobat has formed partnerships with other PROs and EU and international supply chains, enabling sophisticated processing plants in Italy for all collected materials.

Figure 11 Annual PRO revenue 2024-25 (converted to Australian $M with exchange rate April 2026)



and government subsidies and grants are not required for litter, campaigns or infrastructure.

By comparison, for household soft plastic packaging, in 2024-25 SPSA had 4 FTE staff and $4M budget funded voluntarily by 40 brands. They unified with the Soft Plastic Taskforce forming one national scheme with a board, ran nine pilots in SA, Vic and NSW, restarted return to store collections and applied for and gained ACCC authorisation in late 2025.

As the Product Stewardship Centre of Excellence noted in their 2023 report, packaging stewardship is a crowded area with a patchwork of many good-willed hard-working voluntary schemes running alongside state CDS and ratepayer and commercial subsidised collections.[76] It is highly fragmented with too many overheads, gaps and lacking coordination, investment in collection, market development, litter management and education. There is a pathway forward toward a better future through national regulated mandatory EPR with NFP PROs.

5.4 STAFFING AND CAPACITY TO DELIVER AND GROW

Australia's tiny PRO teams are at hig risk

Figure 12 illustrates the flow on result of strong or weak budgets in the number of staff. Again, the pattern is clear, Australia's voluntary PROs have much smaller staff teams than their overseas counterparts, even the provincial/state schemes in Canada and US. They have less capacity to grow and deliver national coordination services for public and industry benefit. Staffing capacity is a crucial success factor, just like budgets.

Tiny teams are high risk, more stressed and less resilient to shocks or departures of staff. The departure of the CEO or COO when there are 7 or 3 staff can mean the end. Conversely PROs with 32 or 42 staff like the Italian Cobat scheme and the French ReFashion respectively have great resilience and capacity to expertly service their members with improved design and withstand global shocks and market gyrations.

Likewise, the larger the number of staff, the more advanced the services delivered, and the greater the stability, capacity for progress, innovation and investment in capital and long-term commitments. With small teams more time is disproportionally allocated to essential overheads of HR, internal administration, governance, audits and submissions rather than actual service delivery.

There is also a crucial additional point here. Where EPR action is mandatory, whether PRO membership is mandatory or not, PROs do not need to allocate significant personnel time to recruiting members and preventing member losses; whereas voluntary PROs with potentially thousands of members and free riders must do this continually to survive, meaning proportionally less funds allocated to service delivery meaning proportionally less funds allocated to service delivery (see Figure 5 OECD chart for typical efficiencies of mandatory EPR).

Mandatory EPR enables PROs to be engines in the economy

In Australia, the flooring PRO ResiLoop kicked into serious gear when they won Australian Government funding in 2020, and they then commenced operations in 2024 and won ACCC authorisation in 2025. In the first 9 months they had established 24 collection points in Victoria at retail and commercial flooring contractor sites, supported by an online portal and App for verified tracking and reporting,

and coordinated recovery of 87 tonnes of material for processing into new products. With 17 producers as voluntary members they have three part time staff (FTE=2) who also manage an R&D investment program. The tiny team envisage the the scheme will grow as the collection network expands and, crucially, as further end markets are identified.

As an indicator of what the future holds for Australia, CARE the flooring NFP PRO in California, regulated in 2010, had in 2024-25 a budget of $33.3M (Aust equivalent) with 94 members and 1 free rider (99% compliance). With 12 FTE staff CARE coordinated collection of 70,488 tons from 400 public and private drop off sites, and recycled 38.5%, selling product back into the market. In terms of multiplier impact, CARE's Annual Report indicates that their program supported employment of ~200 FTE in collections, processors and manufacturing, and that 86% of their outgoing expenses was subsidy to companies operating in California. With 8% of their budget allocated to Administration expenses, they have small overheads for big impact.[77] The efficient team also manage a Fund Reserve to cover for future investments and market volatility. Education and outreach have included training with local councils, installers, contractors, manufacturing mills, retailers. They also provide grants for capex, growing recycled content use and apprenticeships within the flooring supply chain.

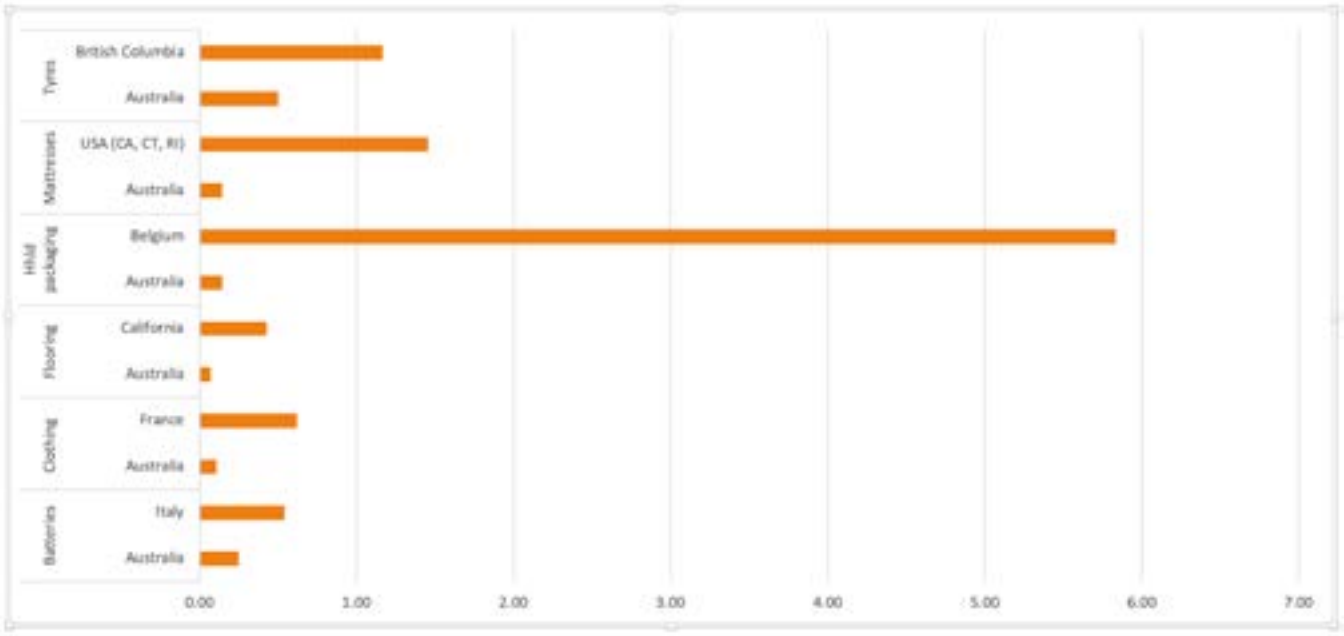
PRO staffing equals capacity for growth and great services

The figures for mattresses are also revealing; US PRO Mattress Recycling Council (MRC) has 30 staff whereas Australia's voluntary PRO ABSC has 4, 19 collection points and a budget less than $1M in 2024-25. MRC operates across three US states with 100% obliged companies as members. After 13 years their annual budget of US$85M is assured arising from mattress sales of $3,200M in 2024-25. Their services are offered through 1,400 collection points, and in 2023-24 they collected 195,725 mattresses (~70,000 tons) representing 50% collection rate which is reprocessed by ~300 contracted recyclers giving ~37.5% recycling rate returning 29,000 tons steel, foam, rubber and timber back into the economy. MRC estimate their program saved counties ~USD$3.25M in 2023-24.[78] The MRC is in a strong position to innovate and expand services with ~USD$5-10M p/a investment capacity.

Mandatory EPR enables equity, innovation and viable SME businesses

For the vast mass and diversity of clothing into an economy, the French ReFashion is an example that shows industry and innovation is not quashed by regulation and what could be achieved in Australia in the future. Clothing EPR was regulated in 2007, and the NFP ReFashion now has 42 FTE, budget of AUD$240M equivalent and counts 95% of 14,900 liable companies as members. By comparison Australian voluntary PRO Seamless, part-funded in 2020 by Australian Government grant by 2023-24 had only 3 FTE and 56 members, 3% of the market. With its budget and expert staff ReFashion's accredited systems collected over 244,000 tonnes, with 57% for reuse (domestic and export), 35% recycled into insulation and wiping cloth, and 6% landfilled or incinerated. It invested €6M in 2024 in recycling supports 67 reprocessors in France. In addition, like the French electronics PRO (Case Study 5.8.1), ReFashion is required by regulations and agreement with the government to subsidise repair. It has an ambitious 2028 target of 35% items repaired (13% of eco-fee allocated to the Repair Fund), meaning a strong SME sector and economy for clothing/tailor production, repair and refurbishing throughout France.[79]

Figure 12 PRO staffing levels proportional to population (million) (2024-25)



5.4.1 Case Study: Belgium – maximising material productivity

Australia's potential improvements and investments can be seen by assessing the published budget of entities such as Fost Plus, the sole PRO responsible for all household packaging in Belgium for 11.9 million people. Fost Plus' members represent 85% of packaging put into the Belgian market each year. There are currently on average 15% free riders (including online imports) nevertheless their €330M+ annual budgets are reliable and able to cover significant areas of responsibility (Figure 13). Having comprehensive data from the packaging sector and supply chain, Fost Plus has been able to improve performance, recycled content and productivity. They have achieved a reduction in packaging while their economy has grown. They reported 727,000 tonnes single-use and 557,000 tonnes reusable packaging in 2023-24. The Belgian governments see circularity as a high priority, and so alongside the private sector Fost Plus has injected €1B investments into collections, sorting and recycling infrastructure in six years 2019-25 achieving one of the highest packaging recycling rates in the world of nearly 80%, and record high 60% plastic packaging recycling, far exceeding the targets set by the Belgian and European governments. A strong focus is on local jobs with 81% local sorting and reprocessing within Belgium vs export. As this table illustrates Fost Plus is also responsible for system-wide activities including litter, education campaigns, and innovation.

Fost Plus's comprehensive, circular and world-leading packaging services cost each Belgian €28.50 per person per year (approximately €0.50 per week). This is a fully PRO-funded system covering the costs incurred for all household packaging across Belgium.

Figure 13 Fost Plus Budget and allocations (2023-24)

2023-24 ALLOCATIONS OF €336 M	%	€ M
Collections	54	181.44
Sorting centres compensation	27	90.72
Litter cleaning and campaigns	4	13.44
Sustainable Packaging action programs	3	10.08
Marketing and Comms	2	6.72
Fost Plus Ops	5	16.80
Post-sorting incineration costs	4	13.44

With regard to packaging the fragmentation and proliferation of schemes over decades in Australia means duplications and large intractable uneconomic gaps, multiple budgets and teams for a lot of effort and variable results, no sectoral strategy or coordination to pursue and be held to account national targets. Australia has no shortage of effort; it has a shortage of regulated focus. The data here shows small Australian PRO SPSA alongside what Belgium achieves. SPSA had 4 FTE for soft plastics pilots for potentially >100,000 tonnes of material whereas Belgium had 70 staff managing all household packaging. Even if it were possible to gather or find data on all of Australia's voluntary and CDS packaging schemes to calculate staff, budgets, costs, overheads etc, it would not change the result, namely that the results and efficiencies will only improve with regulation toward unitary schemes.

Impact of cost structures and task allocation

As shown in the OECD research from 2016, Figure 5, typically nearly all funds (90-95%) received from producers is invested in service delivery on collection, sorting and treatment markets provided by external commercial providers[80] with 5-10% of EPR budget for PRO costs. In the Belgium case study (below), Fost Plus has a big role and budget. They pay for collections via municipalities, and subsidise sorting and recycling where required. They engage with members on improved design, trends and continuous improvement, and fulfil government requirements in their five yearly agreement investing in packaging reuse systems, recyclate and innovations. Fost Plus members and governments would be pleased with their efficiency; only 5% of Fost Plus member fees are allocated to operational and coordination costs.

5.5 PRODUCER FEES AND COST COVERAGE

The true cost of recovery vs basic fees in global EPR systems

A key function of PROs is setting and charging fees to producers to cover costs of efficient services and contingencies as required by the government. The extent of services will vary. For example, Netherlands has seven EPR schemes where producers have responsibility to finance extensive collection and recycling of their products, such as packaging and mattresses. The Dutch also use EPR as a financial instrument; the government levies funds upon three problematic products (wet wipes, balloons and tobacco products with filters) to pay for litter and sewage system clean-up services, a cost normally imposed upon governments and public agency budgets.[81] Fee structures are easily found on PRO websites.

EXPRA Golden Rule i) recommends cost coverage for the life cycle of products. In principle, this should follow the 'true cost' principle which 'should reflect, as far as possible, the true end-of-life costs of a producer's products which would be end of life costs plus social and environmental costs' (European Commission, 2014, p97).[82] However, in practice, most nations aim for 'basic' fees. Basic fees vary according to what services are already in place and the services specified in the regulations or agreement between government and PRO. The extent of cost coverage varies from cost sharing, moderate services or 100% of costs.

How PRO costs are funded and distributed

Typically, PROs are regulated to fund public education, collection, sorting and reprocessing costs (net sales). They will calculate these costs, variables and apportion that across their members according to product types and quantities sold into the market. The basic fee will be a balance, based upon many factors including capacity of producers and consumers to pay, absorb, pass through or adapt to avoid the costs. They will also consider benefits such as expanded services, employment and output recyclate quantities and value and work to maintain the system supply chain as per their regulated responsibility. As Section 2 shows fees charged by PROs add a small margin to cost of goods sold, are small relative to overall product sale price and are outweighed by the overall national economic, social and environmental benefits.

Fair fees are based on quantity and composition

Almost without exception overseas schemes charge basic fees according to quantity and composition. EXPRA Golden Rule f) recommends PROs do not charge levies according to company origin, size or turnover; the fee should relate directly to their level of product responsibility. In this respect the current APCO method warrants overhaul to move to quantity and compositional based pricing. In PROs overseas, metal, paper and cardboard packaging levies are lower than plastic levies because sorting and reprocessing is relatively easy in large plants and the material has established markets and high sale value. Likewise, the national Oil fee structure could be updated to reflect composition and recyclability similar to the French Oil Stewardship program, Case Study 3.3.1.

5.6 TRANSPARENCY OF MONEY AND MATERIAL FLOWS

How transparency and regulation shape PRO performance

The role of PROs is to fund activities that fill a gap in existing systems which are often costly, non-profitable activities, such as funding collection, processing or bringing together competing companies to collaborate on innovative services. EXPRA Golden Rule h) recommends that there is transparency of both money and material flow to ensure, for instance, that recycling has been undertaken, stock has been sold, and when losses/profits arise.

There are three general facts about transparency that will aid or impede successful EPR:

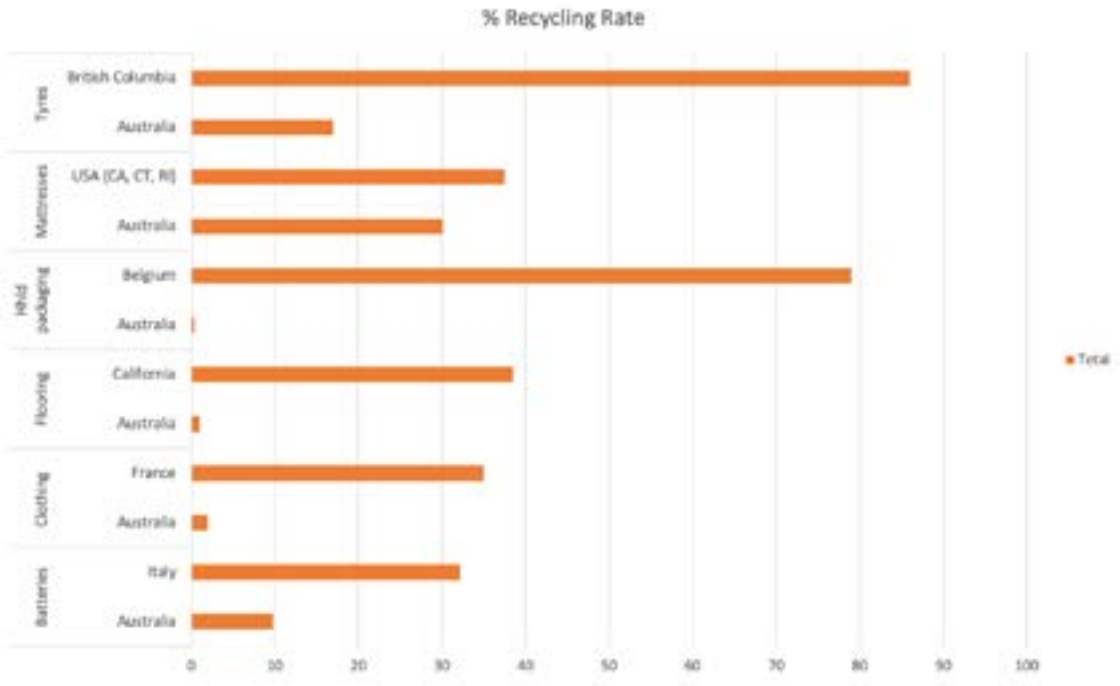
1. PROs managing member funds will aim for efficiency and will tender for service providers seeking best value for services. This is the case for FP and NFP PROs. For profit PROs may look to also increase market share, vertically integrate, and increase profit.
2. Commercial service providers, e.g. recyclers, are less likely to provide confidential information in tenders or ongoing reporting, such as the destination and sale price of PRO-funded recyclate, to a for-profit PRO than a NFP PRO. They will do so if compelled in regulation and so regulation must require supply chain reporting where feasible and useful.
3. As reported earlier NFP PROs are more likely than for profit PROs to have and share data on material and money flow and progress toward targets with government regulators.

5.7 CIRCULARITY, COLLECTION AND RECYCLING PERFORMANCE

From collection focused systems to comprehensive PRO-led circularity

A direct result of well-funded PROs is their capacity to provide communities and businesses with easy and low-cost access to services. As the case studies throughout this report illustrate, those countries with regulations and regulators that align with EXPRA's Golden Rules have high rates of recycling. They also have significantly and measurably improved the circularity and efficiency of the products available to their citizens and businesses.

Figure 14 Annual mechanical recycling rates per PRO (2024-25)



NOTE: This chart uses mechanical recycling data obtained from specific PROs relative to the quantity of product into the jurisdiction; it excludes waste to energy/incineration. Australian tyre recycling is by industry and independent of the PRO, Australian packaging data is only soft plastics PRO, the French clothing PRO includes linen, shoes and data excludes reuse, and the Italian battery PRO is for one of four in operation.

As Figure 14 indicates Australia falls below all comparable jurisdictions on recycling rates for each of these priority products. As the various case studies in mattresses in this report indicate Australia's voluntary scheme collects and recycles less than mandatory schemes in France and US (California, Connecticut, Rhode Island). BC Tire Stewardship Annual Report states that they collect 100% (allowing for 5yr lifespan) and mechanically recycled 86% of tyres covered by their scheme (excluding energy recovery),[83] whereas Australia TSA has no responsibility for coordination of collections or subsidy of recycling, and Australia's tyre sector mechanically recycles 17%. Belgium household packaging recycling is world leading around 80% and according to APCO's reports Australia's recycling sits around 59% for all packaging[84] and voluntary PRO SPSA's collection and recycling of soft plastic is tiny, less than 1%. On batteries, Australia BSC has high 65% recycling of the material it collects, however it is only able to collect around 20% with recycling less than 10% of batteries sold into the Australian market. Whereas in Italy with mandatory EPR with four NFP PROs, Cobat representing 41% of the Italian market, sells all its product to recyclers. Cobat and its supply chain are not obliged to report recycling rates, so if we assume an 80% processing rate, it is possible Cobat's recycling rate is close to 32% of batteries in the Italian market. As described in Section 5.4 ReFashion's reuse rate sits around 57% and recycling into wiping cloth and insulation at 35%.

In Australia, the situation is very different with voluntary schemes. Not only are the recycling rates lower, the scope and coverage of Australian PROs is smaller, meaning there is even greater losses to landfills or as dumping or litter.

One of the most significant consequences of Australia's inadequate EPR is inadequate collections, recycling facilities and high cost imposed upon all households and taxpayers. From Netherlands to Germany to Italy, PROs for batteries, e-waste, mattresses, packaging etc contribute financially to running costs of collections and drop-off for public and industry and recycling facilities. In this way the people in cities like Munich with <1M population have 18 staffed free drop off public facilities, conveniently located around the corner from local shops and stations. And this is in addition to drop off at retail outlets. It is common in EPR schemes for retailers with certain floor area or product turnover to have regulatory obligations to receive back for recycling those products they sell. This is why several of

Figure 15 Public drop off facility for recyclables in Munich suburb, 2018 (photo H Millicer, 2018)

5.7.1 Case study: Czech Republic – PRO evolution in coordinating circularity

After the end of communism in 1989, the Czech Republic faced greater challenges than most nations in forming a completely new economy, government and systems. EkoKom, the country's packaging PRO was formed in 1997 and rapidly expanded by 2004 to offer essential services to 97% citizens in the new nation via 4,450 councils and 100,000 collection containers, two years after authorisation by the Czech government. This became more comprehensive and sophisticated, and by 2024, EkoKom had contracts for collection support with 6,200 municipalities, serving 99% of the population, collecting 1,279,828 tonnes of packaging material with levies collected from 21,344 clients. It has steadily increased its collection rate and recycling rate to 74% and has recycling agreements with over 100 local reprocessors for all packaging (household and plus industrial where required).

EkoKom's contracting and funding model has evolved over time to become light touch. With so many sorters and processors now handling material EkoKom does not get involved in the movement of material, unlike other PROs, such as in Belgium. EkoKom does not 'own' the material.

EkoKom does extensive diligence review of sorting and processing companies before engaging them as a part-funded service provider. Once signed to be financially supported by EkoKom, all contractors report quarterly their income statement and material movements. EkoKom pays all contracted recyclers for their services and like them also watches market movements in quantity and price. This ensures that packaging continues to be collected, processed and sold, recyclers are efficient and viable, and EkoKom maximises the value of member funds.

It is useful to see the allocation of staff at EkoKom to envisage future staffing capacity in Australian PROs in the future.

EKO-KOM HAS 85 STAFF IN THESE FUNCTIONAL AREAS:	
25	Member engagement, including reporting, advice on design, labelling
20	Council management, incl collection contracts, collection infrastructure
7	Supply chain coordination, sorting and recycling facilities
10	Finance, budgets, accounting, auditing
7	Education and communications, incl schools, media, campaigns
7	IT inhouse, CRM, systems
7	Data management, analytics, modelling, review and control
2	CEO office, Board management

Table 9 Eko-Kom staff members (Stakeholder Meeting, Prague, 2025)

Figure 16 Timeline evolution and milestones for Eko-Kom PRO, Czech Republic

1997	Waste Act passed, industry forms Eko-Kom and govt approves in 1999
2001	Waste Act comes into effect. Eko-Kom: 600 companies join (42% POM) 2,750 contracts with councils for 8M people
2002	Ministry of Environment authorises Eko-Kom as PRO. Czech Environment Inspectorate oversees compliance with Packaging Act that specifies obligations on packaging and take back packaging waste
2004	Eko-Kom: 21,000 producer clients, 4,450 councils, 100 contract service providers, 100,000 collection containers accessible to 97% consumers
2005	Eko-Kom authorisation extended to 2012, in 2012 extended to 2024
2024	2024 Govt directs Eko-Kom to hold Reserve for x2 turnover to preserve system

the PROs list the thousands of drop off facilities in their annual reports. When recycling is habitual and easy, and PROs run regular public education campaigns, the national collection and recycling rates can be very high.

CDS in Australia is not the same as EPR for improved design and circularity

Another distinctive difference as covered in this report is that EPR is moving into more sophisticated territory, investing in reuse and repair systems. Existing EPR legislation and regulations in Australia are mainly geared towards collection and recycling; this is the case for the NTCRS and CDS schemes which currently exclude any other step in circularity.

The main feature of CDS is that it invests heavily in source separation systems that provide clean material which is highly prized by reprocessor and manufacturers. However, CDS is a limited type of stewardship and not a substitute for comprehensive EPR as practiced overseas or a wide-scope PRO that incentivises good design, recyclability and recycled content. CDS only super charges clean collection at high cost per unit and not the whole system and the collected material is not required to be available to PRO producer members equally. In the Netherlands, the CDS deposit and return system is managed nationally by the packaging PRO Verpact, ensuring seamless services, high efficiency, transparency, consistency and reporting with low costs and overheads. This also means that CDS packaging is subject to the same requirements for improved design, recyclability and recycled content as all other packaging in the Verpact system. This is not the case in Australia's CDS.

5.8 ECO-MODULATING FEES FOR EXTRA IMPACT

Evolution, adoption and impact in mature EPR systems

The use of eco-modulated fees has captured the imagination of many in Australia who see it as a great solution to provide extra financial incentive for good design, longer life, recyclable products and packaging. Eco-modulated fees are an advance upon the basic fee structure where there is a significant bonus/malus fee structure for good / bad circularity features such as recyclability.

Eco-modulated fees were first introduced in 2010 by NFP packaging PROs CITEO in France and Conai in Italy. Initially eco-modulation was tentative, with small amplitude from the basic fee and the differential pricing has become bolder as it has been shown to sway producers. It is now sometimes double the original basic fee up and down in amplitude. Not many country PROs have adopted eco-modulated fee structures, possibly because they are competing schemes, and many have not differentiated beyond basic fee structures.

According to the EUROPEN 2026 report analysing all EU packaging PROs 'Eco-modulation is the strongest single driver of recycling performance in the dataset'[85]. Eco-modulation has been so powerful an incentive for Fost Plus members in Belgium that fewer producers are now paying the malus levy than when it was first introduced indicating they have transitioned over time to better formats. Eco-modulation is being applied elsewhere; the US state of Maine has mandated eco-modulated fees to commence in packaging in 2027.

5.8.1 Case study: French citizens and businesses benefit from better electronic goods

France was the first nation to extend the eco-modulated fee system to another product category from packaging to apply it to electronic goods (2010-15) initially applying it to a single product type. Since 2015, the French NFP PRO Ecologic has expanded the system to 18 of their covered product categories from mobile phones to laptops and washing machines. This gradual expansion of eco-modulated fees is driving important productivity improvements across the French economy for the benefit of citizens and businesses.

Ecologic's criteria are designed to aid the circularity of products, not merely recycling as follows:

- Post-consumer recycled plastic content
- Ease of disassembly
- Ease of upgrade
- Availability of spare parts
- Availability of technical information to facilitate professional repair
- Lack of coatings that can inhibit recycling
- Lack of hazardous substances (any brominated flame retardants
- all LED (lamps only).[89]

Capacity requirements for effective eco-modulation

As noted in a report to OECD, the additional complexity of eco-modulation requires cost-effective sophisticated data collection and management capacity. Skills more easily available in mature and large EPR systems. They advise 'to begin with basic fee modulation when a new EPR is established, so as to minimise complexity of initial implementation'.[86]

According to experts at Conai, the sole Italian NFP PRO for packaging, these are the requirements for any PRO to proceed with co-modulation[87]:

1. Deep knowledge and extensive detailed data on the characteristics that enable and hinder circularity as well as impact the supply chain (lifespan, recyclability, demand from markets, costs in the system).
2. System modelling capacity to test potential impacts upon their members, their own budgets and contractor service fees.
3. Capacity to form criteria, weightings, pricing systems and reach agreement with parties (governments, members, sorters/reprocessors, auditors and contracted service providers) that the new system will be fair, measurable, auditable and enforceable, and flexible to respond to design trends, local infrastructure and market demand.

Australia's battery PRO, BSC is leading the charge, having received ACCC authorisation in late 2025 to introduce eco-modulated levy arrangements for their members.[88] They will be relying upon years of data, insights and modelling to begin this journey.

Eco-modulating levies is a responsible method to stimulate and reflect market reality. It will be more feasible and useful once mandatory EPR regulation comes into effect in Australia. It has great potential to substantially improve the productivity and circularity of products entering the Australian market for households and businesses for decades to come.

Capacity challenges in adopting eco-modulation in Australia

In conducting research for this project, it appears that the only PROs to introduce a significant bonus-malus modulation around circularity criteria such as Ecologic above are NFP PROs and tend to be solo not competing PROs. This is logical as the practice of eco-modulating fees is not consistent with commercial competing PROs which typically aim for lowest cost advantage, basic fees and services, not incentivisation for long term public benefit.

In addition to BSC, a few Australian PROs have ambitions to introduce eco-modulated fees to incentivise producers to bring good eco-design to Australia. However, Australian PROs (voluntary and regulated alike) currently have limited staff and data, modelling capacity, budgets and authority to proceed with confidence in the impactful manner used in regulated solo schemes overseas.

5.9 CONSUMER INFORMATION AND EDUCATION

Information and education of consumers is another EXPRA Golden Rule g). For consumers to change behaviour they need information and engagement, and most nations' PROs are provided responsibility to do that by their governments on behalf of their members. In some nations the regulations and regular agreements between government and PRO set out the scale, frequency and measure of success of campaigns.

It would be excellent for such education and communication campaigns to be run in Australia for all priority products from packaging to mattresses, tyres and clothing, at scale, frequently and with a call to action. The change in behaviour and compliance could be transformative. It will be feasible once PROs are regulated, well-funded and united.

Perhaps the best example in Australia to date has been the large billboards and trade magazine ads promoting paint recycling sponsored by Paintback, Australia's PRO for paint and paint containers. Paintback has an ongoing strong profile with paint retail outlets and locations where old paint containers can be returned.

PRO-run campaigns lift the responsibility and cost from governments, taxpayers and the environment. Assigning responsibility for campaigns and outcomes means strong expertise in the campaigns, measurement of impact and response such that over years citizens become familiar and adjust for circular actions to become normal behaviour.

Figure 18 Paintback Advert (Australia, undated). Image courtesy, Bunnings.

Figure 17 Recupel information campaign (Belgium, 2025)

5.9.1 Case study: Belgium electronic PRO education campaign

Information and campaigns are best when they are purposeful and well organised for specific outcomes, using relevant mainstream and specialist media. This requires PROs with expertise, budgets and clear objectives for household actions.

Recupel in Belgium is the sole NFP PRO for electronic goods and their long running information and education of public has resulted in high public and industry knowledge and compliance. Recupel supports an extensive network of drop-off sites and has a regulatory obligation to run mass-media education campaigns throughout the country, such as tram stop shelters.

By assigning responsibility for public communications to the PRO, all levels of government and parts of the supply chain use Recupel's promotions instead of generating information anew and refer to it and direct people to it for questions and actions. This also means that information regarding electronic goods is consistent, reinforcing and covers all communities across the country.[90] There are of course some slight regional variations, including use of Flemish and Dutch language in different parts of the country.

5.10 CONCLUSION

This section has compared the capacity and performance of PRO schemes in Australia and other nations highlighting the potential benefits of improved EPR design and regulation for Australia.

- **Revenue instability:** Voluntary and fragmented PROs and funding models create uncertain and inconsistent revenue streams, limiting long-term system planning and reducing the ability to scale services
- **Impacts on staffing:** Unstable funding constrains workforce size, retention, and specialist capability, resulting in smaller teams focused on administration and member engagement rather than system delivery and optimisation
- **Impacts on investment and infrastructure planning:** Short-term and uncertain financial commitments depress confidence for long-term investment, restricting the development of collection systems, processing infrastructure, and innovation in recycling and circular economy solutions by all parties
- **Impact on market participation and free-riding:** Mandatory EPR significantly reduces free-riding and creates larger, more stable member bases for PROs, whereas voluntary PROs experience weaker participation and reduced financial capacity
- **Impact on legal structures and PRO priorities**: Commercial PROs have different purpose and priorities to NFP PROs with resulting challenges in reporting, pursuit of targets, flexibility to adapt to national needs and operating transparency
- **Impact on transparency:** Regulated NFP PROs provide highest levels of transparency and accountability for the management of financial and materials flows. This helps streamline procurement and service delivery, ensuring more producer fees go directly to operational outcomes rather than administration or profit to PROs and associated companies
- **Impact on circularity:** Overseas examples show that well-funded regulated NFP PROs go beyond collection using eco-modulated fee structures to improve product design, reuse, repair and infrastructure efficiency. Such efficient PROs consistently achieve higher national circularity outcomes as well as collection and recycling rates.

5.10.1 Case study: Australia vs France - fashion

FRANCE: REFASHION	**AUSTRALIA:** SEAMLESS
Scope Clothing, household linen and footwear (CHLF)	**Scope** Clothing
History • 1975 – EPR principle codified in the French Environment Code • 2007 – EPR scheme for CHLF established • 2020 - The "Anti-Waste for a Circular Economy" law (AGEC Law) strengthened this framework with eco-modulation incentives, funding dedicated to repair and reuse, as well as R&D programs to boost recycling. • 2023 – Specifications updated with new targets • 2025 – the government introduced financial penalties on ultra-fast fashion items through eco-modulation	**History** • 2021 - Australian Fashion Council awarded a $1 million grant to lead development of a clothing stewardship scheme • 2021 - clothing textiles placed on the Federal Minister's Priority List for Product Stewardship • 2023 - Seamless launched • 2024 - Seamless commenced operations
Policy framework The scheme is mandatory with an industry-led PRO: • objectives established by government and formalised in an official agreement, accompanied by regulated Specifications • Specifications include quantitative targets for 2024 and 2027. In addition to collection and recycling targets, PROs must spend €44 million per year on repair.	**Policy framework** Seamless is a voluntary industry-led PRO.
PROs ReFashion is a NFP organisation approved by the government (current approval runs until 2028). It is the only PRO in the sector. Companies can implement EPR individually but ~ 14,000 companies (95% of the market) have joined ReFashion.	**PROs** Seamless, is a NFP organisation registered as Clothing Stewardship Australia Ltd. Its membership currently includes 55 brands and retailers.
Regulator The scheme is jointly supervised by ADEME - The French Agency for Ecological Transition – and the French Risk Prevention Directorate (DGPR).	**Regulator** The scheme is currently voluntary. There is no regulator for clothing stewardship and no enforcement mechanism for participation or performance
Effectiveness In 2024 ReFashion: • collected around one third of the textile and footwear waste generated annually, equal to almost 300,000 tonnes. • repaired ~ 550,000 items.	**Effectiveness** The scheme is only in its infancy. Pilot projects have collected and sorted nearly 31 tonnes of clothing.
Key differences • • Scope in the French scheme has widened over time: Seamless is limited to clothing while ReFashion covers clothing, household linen and footwear. • ReFashion also aligns to government circular economy policy by providing funding for repair • Seamless has been unable to attract a high level of membership: 55 brands and retails compared to ~14,000 members in France, reflecting its voluntary status and no regulator providing oversight.	

6 REGULATOR – POLICING POLICY DELIVERY

Regulators are the third equally important element for successful EPR schemes. They are the objective auditors of data, regulatory compliance and budgets, and 'police on the beat'.

Good regulators will hold industry accountable and defend public interest. They not only approve the level and scope of work proposed by the PROs, they also have expertise to improve it where necessary. Some regulators, such as the Belgium EPR regulator, have extensive access to the Producer Registries and PRO data and guarantee confidentiality. And all EPR regulators should be enabled by legislation, regulation and staffing capacity to control and sanction non-compliance and free riders for scheme integrity and equity.

Without good regulators government policy may be thwarted, PROs may be non-compliant with their authorised agreements with government or sign fraudulent contracts, or producers may be dodging their legal responsibilities and 'free riding' the PRO and the good efforts of others. Without good regulators, many of EXPRA's EPR Golden Rules cannot be met, especially not for transparency, equity and cost efficiency.

As represented in Figure 8, regulators are the 'go between' entity working on behalf of government policy makers and legislators and PROs and industry. They oversee the operation and performance of the EPR product system. The role and authority of the regulator is especially important and difficult when there are for-profit PROs or when PROs are vertically integrated in the sector, such as running sorting facilities and buying and trading product. The degree of difficulty is not so high but is still present when there are multiple NFP PROs. For more on these matters see Section 4.4.

This section covers the key aspects of successful regulators that are to be included in legislation and regulation, as well as in government budgets and staffing.

6.1 REGULATOR'S ROLES AND DUTIES

Government EPR regulators have important, confidential and diligent roles and duties to perform protecting public interest. Multiple interviews and reviews of scheme regulations and guides were undertaken and can be summarised as follows.[1]

Regulators are there to ensure:

1. government policy is being observed and targets are being measured and met
2. laws and regulations are complied with by both PROs and liable parties
3. data, audits, reports and systems are 100% correct
4. non-compliance and complaints are investigated and where required penalised
5. PROs are financially solvent, fees are sufficient and not excessive for operations, financial reserves are sufficient for future risks, and PROs are able to continue to perform according to agreements with government to operate.

Depending upon the laws and regulations for the EPR product scheme, the regulator is often also:

6. the designated authority to receive:
    a. the registration number of all liable parties operating in the market
    b. annual action plans on how liable parties intend to meet regulations and targets
    c. annual reports on performance from PROs and liable parties
    d. regular data and analysis collated by PROs on paid members and levy dodgers, collection, processing, quantities on market for verification including with its own data from various government sources such as imports etc.
7. Responsible to commission audits of PROs and liable entities, including checks on service providers
8. Responsible to ensure PRO's model contracts with parties in the supply chain (councils, retailers, collectors, sorters etc) are fair, reasonable, standardised and that there are standard control systems such as audits, tendering, reporting by those parties.

Fundamentally this means that regulators are provided insight into the workings of many parts of the regulated EPR system and access to data from the national Registries of Producers. This transparency is fundamental for trust, for producers who pay the PROs, the commercial operators in the supply chain vying for contracts, all levels of government and the public.

[1] H. Millicer interviews with Belgian Regulator, and PROs in Austria, Czechia, Netherlands, Italy Mar-July 2025

6.2 STRUCTURE OF THE REGULATOR

A review of government websites and publications was undertaken to examine EPR regulators in other countries (Table 10). Whether the EPR regulator is established as a unit within a department or as an external entity depends in part on:

- the parliamentary history of that country
- typical models for regulatory control of comparable entities or industries
- number of EPR schemes in the country and number of PROs for each scheme.

Based on this review, the majority choose to use a specialist regulator agency for EPR such as their national EPA or a Commission or Environment Board. It is understood that this is a strategy for tight regulatory oversight, management of risk and use of entities with boards that are independent of ministers, political influences and policy making.

For cross-checking that all producers operating in a market are members of a PRO or compliant, it is a relatively new development in Europe for governments to require establishment of NFP Registries, initially for electronics and increasingly being adopted for packaging EPR. Often these Registries are held by government authorities (funded by the producers via the PRO) to receive and hold names and quantities of products from all obliged producers operating in the country (including online sales).

Table 10 Regulators for EPR in sample countries (Source: multiple sources and websites)

GOVERNMENT DEPARTMENT	ENVIRONMENT PROTECTION AGENCY, INSPECTORATE	SPECIAL GOVT ENTITY (COMMISSION, ENVIRONMENT BOARD)
Austria	Denmark	Belgium
Brazil	Germany	Estonia
Czechia	Netherlands	Finland
Israel	Norway	France
Italy	Poland	Portugal
South Africa		
Spain		

There are variations as to how closely connected is the Regulator to the Registries and how they are structured. In the case of the Netherlands, the National WEEE Register is an independent NFP foundation, funded by liable producers of electrical goods, and shares different levels of data with the relevant government departments to enable compliance and tracing of obliged companies.[91]

6.2.1 Case studies: EPR Regulators assignments in France, Spain, Austria

France for example assigns their national EPA as regulator for all their EPR schemes for 20 product categories including: packaging, textiles (clothing and footwear), electronics, furniture and mattresses, tyres, batteries, mineral and synthetic oil and vehicles, and there are more schemes being considered. France is a fascinating case study for the way in which they regulate and add to the scope of existing schemes not always only commencing completely new schemes. For example, the furniture scheme added mattresses in 2012 with the impressive transformation from loss to recycling, cutting landfilling of mattresses from ~100% to ~4% by 2025, injecting 40,000 tonnes of reprocessed material back into the French economy in 2024[92]. This was a mutually agreed position between government policy makers, PRO and regulators. The decision to expand the remit of the furniture PRO to include mattresses was informed by data, PRO competency, recognition of aligned product supply chains (retailers, customers and product material composition).

Spain currently has only a few EPR schemes, and is commencing new ones in line with its strategy and the EU Waste Framework Directive that mandates EPR for textiles and textile related products and footwear.[93] All producers in Spain, subject to forthcoming EPR for products such as mattresses and clothing, are required to register in Spain's Registry of Producers, and the Ministry is the regulator.

By contrast, Austria only has EPR for packaging, allowing free market for products such as tyres and batteries and uses other controls such as landfill, incineration and taxes. With only one EPR scheme, the regulatory task sits with the national Government Environment Department. The Austrian EPA performs similar duties to Australian state EPAs and focuses on registered sites and organisations such as verifiers.[94] The European Environment Agency (the official research institution for the European Commission and Parliament), noted that Austria has one of the highest rates of waste per person amongst member states, and that 'there is no indication of decoupling waste generation from economic growth'.[95] The Austrians are not engaged focused on EPR as yet, rely heavily on incinerators for waste to energy, for the moment relying upon government grants and incineration taxes.

6.3 REGULATOR EXPERISE AND ROLES

Given the roles and responsibilities of regulators to ensure compliance, efficiency and performance in line with government regulations, they require staff with specialist skills and attributes. These skills may be different to those of policy makers, communications, grant or program managers. Regulators benefit from staff trained in analysing data, conducting audits and with expertise in law, contracts, compliance plus and good knowledge of the priority product and supply chain to spot trends, fraud, risks and opportunities for improved risk management.

6.4 COMPLIANCE MECHANISMS, DETECTING AND SANCTIONING FREE RIDERS

Effective compliance mechanisms are essential in EPR systems because they help ensure that all participants meet their obligations fairly, prevent free-riding, and keep the system running transparently and efficiently.

Methods for detecting and sanctioning free riders may be the most important task of a regulator, and the procedure and fines are normally specified in EPR legislation approved by parliament. The Australian RaWR Act and NSW EPA EPR Act both stipulate the mandatory requirements and fines for non-compliance. It is a fine art balancing procedural fairness with speed and the quantity of revenue from penalties with probability and scale of the offence.

As described above regulators rely heavily on good data and reports and penalties are generally issued for:

1. Not reporting (PROs and liable entities)
2. Refusal of inspection (of sites or records)
3. Free riding (producers not fulfilling obligations).

Fines vary from financial costs to imprisonment and can be administrative fines determined by the regulator or court imposed. The greater the offence and assigned penalty, the greater the monitoring and time between detection and resolution, where the regulator may need to assemble official reports for prosecution. EPAs in Australia have this existing mechanism and structure.

Interestingly, the Belgian governments have decided to revise their legislation after nearly 30 years to simpler

6.3.1 Case study: Belgian Regulator evolution – role and staffing

As described in the mini-case study 5.4.1, Belgium is restructuring their regulators and roles. In 2025 the Belgian federation of governments agreed to streamline their regulators, transferring regulatory responsibility for all dozen EPR schemes from their government departments to their Interregional Packaging Commission in 2025. Belgium's Interregional Commission, renamed Epribel, is now responsible for all EPR schemes and monitoring obliged producers and PROs. The restructure agreement was that provincial governments will retain responsibility for monitoring performance on the ground, such as the collection of products from sites and stockpiling.

Accordingly, the team is going from seven staff for packaging to an expanded 34-person team:

- packaging (6)
- other EPR-flows incl batteries, WEEE, tyres (5)
- litter (1)
- transit of waste (3)
- inspection (3+)
- IT (4)
- other support (2), administration (7), management (3).

Epribel will have a mix of people dedicated to specific product EPR schemes as well as specialists in key areas of risk and responsibility namely contracts, data analysis and compliance inspections, and support administrators checking accuracy of data and declarations and issuance of fines.

As Marc Adams, CEO of Belgium's Epribel states, their role is not to control members of the PRO, that is the role of the PRO itself (self-control). Epribel's role on behalf of the government is to manage the control procedures of the PRO to ensure good governance and efficiency.[96]

This takes four forms:

1. Approving model contracts and tendering. Specifically, this is for:
    a. Standard contracts with PRO members
    b. Standard contracts with other levels of govt e.g. local councils via inter-municipality groups
    c. Standard contracts with waste operators/suppliers
2. Approving control procedures such as audits of recyclers and waste operators
3. Control strategy of recycling of industrial and commercial waste, mapping recycling flows and audits of trading
4. Detecting and sanctioning free riders.

This restructure is an exciting transition that may result in even greater compliance and EPR advancement in Belgium. Epribel has potential to become a useful analyst on priority product flows in and around the country, its imports, exports, impact of strategy and targets on circularity.

Table 11 Old court-based vs new regulator-administered free rider penalties in Belgium

OFFENCE	OLD FREE RIDER PENALTY SYSTEM (heavy reliance on courts)	NEW FREE RIDER SYSTEM (administered by the regulator)
Refusal of inspection and records	Court imposed fine of €100-€1,000,000 and/ or imprisonment 1 month to 1 year	€5,000 euros; doubled for second offence
Free riding	Court imposed fine of €1,000-€2,000,000 euros and/or imprisonment 1 month to 1 year OR administrative fine of €1,454.50 per tonne not recycled and €727.25 per tonne not recovered	€5,000 euros; doubled for second offence

procedures and penalty structures with only administrative fines that are processed by the regulator.[97] These fines are smaller per offence and easier to administer, meaning while less revenue per offence more of them can be issued, quicker action taken with producers, minimising 'red tape' and court time, and hopefully improved compliance. It is estimated this may result in possibly additional revenue to the regulator and certainly fewer free riders in Belgium.

Finally, the administrative fine is a sanction paid to the regulator. Free riders who have not paid the PRO or taken equivalent action as required under the act and regulations are also required to pay the PRO the full membership fee for their product quantity placed on market for the period of non-compliance. Thereby PROs regain lost revenue from free-riding companies.

6.5 CONCLUSION

- **Regulator's role and duties:** consist of monitoring the PROs and obliged companies for compliance, verifying data, commissioning audits, investigating breaches, and overseeing producer registration and reporting.
- **Regulator's governance structure:** Independent or semi-independent structures are recommended to strengthen oversight, reduce political influence, and improve consistency across schemes. International best practice typically places EPR regulators within EPAs, commissions, or dedicated national environment agencies. Access to and alignment with national data sets aides good policy and compliance enforcement and minimises administrative layers.
- **Regulator's expertise:** skills in auditing, data analysis, law, contracts and product supply chains assists to identify risks, ensure compliance and detect fraud or system inefficiencies.
- **Strong and quick compliance enforcement:** is essential to prevent free-riding and ensure compliance. Belgium's shift to a quick administrative lower-penalty system shows that speedy action aides consistency, fairness and effectiveness compared to the reliance on courts.

Photo: Flooring collection, courtesy Resiloop Ltd

7 APPENDICES

7.1 EPR MILESTONES IN AUSTRALIA AND OVERSEAS

AUSTRALIA		INTERNATIONAL
South Australia introduces first container deposit scheme (CDS) (1977)	1970s	
Limited kerbside collection of containers funded by the beverage industry	1980s	Italy Battery mandatory consortium Cobat starts with lead accumulators (1988) expands to ewaste and PV modules (2011)
Australian Mobile Telecommunications Association (AMTA) implements voluntary stewardship for mobile phones (MobileMuster) (1998) First National Packaging Covenant (NPC) signed by governments and industry (1999) DrumMUSTER formed for agricultural and veterinary (AgVet) chemical containers (1999)	1990s Start of EPR laws and regs in EU and US	Germany introduced EPR for packaging (Packaging Ordinance (VerpackG) (1991) Canada British Columbia est Tyre Stewardship (1991) regulated (2004) Italy and Belgium apply 'polluter pay' principle to cover costs. Belgium introduces expensive Beverage Tax (1993) and companies form Fost Plus and gain Govt approval (1994) EU introduces the Packaging and Packaging Waste Directive (PPWD) (94/62/EC) (1994) Belgian provincial governments legislate forming the Interregional Packaging Commission to regulate Fost Plus and mandate EPR (1997) US establishes the Battery Network (1997) UK starts Packaging Recycling Note certificate trading system with competing entities (1997) Switzerland world-first mandatory EPR for e-waste (1998) Czech Govt approves EkoKom packaging PRO (1999)
Australian Government introduces mandatory Product Stewardship (Oil) Act and runs scheme (2000) AgSafe establishes ChemClear for agricultural chemicals (2003) Australian states introduce laws for products of concern	2000s EPR spreads to more nations	South Korea passes Act for mandatory packaging EPR (2003) Canada-wide Electronics Product Stewardship (2004), and regs updated for more products (2009) France clothing EPR regulated (2007) Refashion clothing PRO registered (2008)
Product Stewardship Act (2011) passed with Regulations for Televisions & Computers (2011) Tyre Stewardship Australia establishes stewardship scheme (2014) Paintback starts collections (2016) formed with support of EcoRecycle Victoria (2006) ABSC launches mattress stewardship scheme (2016) Container deposit scheme introduced in NSW (2017), ACT and QLD (2018)	2010s Aust first EPR law and regs, more voluntary schemes PROs get into eco-modulating fees	Brazil passes Act for mandatory packaging EPR (2010) California passes world first Mattress EPR (2010) then Connecticut and Rhode Island (2013-16) France Eco-Maison for Mattresses formed (2011) California EPR carpet CARE PRO established (2010) France Ecologic electronics PRO introduces world-first eco-modulated fee (2018) French Citeo and Italian Conai packaging PROs introduce eco-modulated fees (2019)

Battery Stewardship Council implements battery stewardship scheme (2020) The Recycling and Waste Reduction Act 2020 includes export bans and product stewardship powers and Minister's List (2020) National Mandatory Product Stewardship for mercury-added products (2021) Container deposit scheme introduced in WA (2020), Vic (2023) Seamless stewardship scheme for clothing launched (2023) Resiloop scheme for resilient flooring commences operations (2024) Tasmania last state to introduce mandatory CDS in Australia (2025) NSW EPA regulates for battery EPR and calls for PRO to manage scheme in NSW (2026)	2020s	EU Packaging & Packaging Waste Regs (PPWR) replace Packaging Directive 94/62/EC (2024) Canada Electronics regulations update with new products again (2025) France Oils Cyclevia PRO approved (2022) Brazil new regs strengthening and structuring packaging reverse logistics systems (2025) Slovenia Government wins in EU Court of Justice for right to regulate for single NFP Packaging PRO (2025) Polish Government pass new Act for single PRO, cancelling all competing for profit PROs (2025) UK passes Act for all packaging EPR awards to PackUK PRO incl for all PRN entities (2025)

Table 12 Timeline of EPR milestones in Australia and overseas

7.2 EPR - A SHORT HISTORY OF A PRODUCTIVITY SOLUTION

EPR has come a long way in 40 years. In a 2025 paper for the Global Plastics Treaty, ISWA called EPR 'one of the most effective policy instruments to move from 'end of pipe' waste management toward a truly circular economy'.[98]

Pre-1980s – From voluntary to polluter pays

By the 1980s solid waste had become a high priority public issue in many developed countries because of declining landfill space, increasing costs of disposal and opposition to new landfills. This was particularly urgent in small European countries where landfills were full and polluting groundwater and incineration plants became expensive costs for ratepayers. It became evident that voluntary product stewardship by companies was insufficient. The Polluter Pays Principle (PPP) emerged to become a set of government laws and regulations setting operational compliance and financial requirements upon producers placing product/packaging in a market.

1980-2010s – EPR introduced to improve recycling

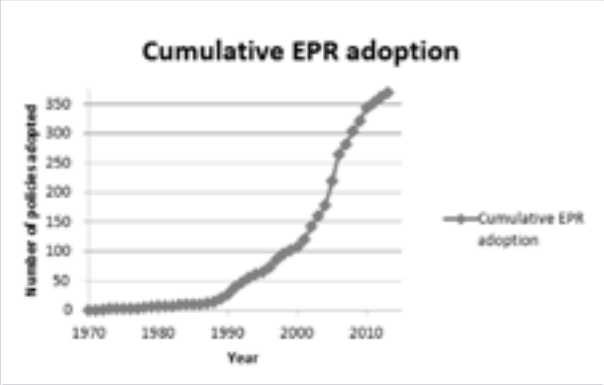
In the early 1990s, Thomas Lindhqvist, an academic at Lund University in Sweden, proposed an innovative solution that he called EPR. The aim was to reduce the environmental impact of a product by making the manufacturer 'responsible for the entire life cycle of the product and especially for the take-back, recycling and final disposal of the product'.[99]

Initially governments, industry and public used EPR as a fiscal tool to fund or incentivise investment in collection and recycling infrastructure to augment traditional commercial markets, ratepayer subsidies and government grants. As case studies in this report show, in such jurisdictions, mandatory EPR has resulted in new and expanded collections, new sorting and processing facilities and therefore reduced waste to landfills and litter, plus increased recycled materials available for local and international markets. There have also been increases in commercial and industry innovations and businesses bringing superior level of professional coordination and contract management, IT, traceability, accounting, standards, certification to facilities and operations.

A 2015 report revealed rapid growth in EPR adoption across the 1990s and 2000s led by electronics, followed by packaging and tyres.[100] EPR laws continue to expand globally, with Brazil's parliament

introducing mandatory packaging EPR in 2010 and updated for reusable packaging in 2025, Colombia tightening its packaging EPR framework in 2024,[101] and South Africa in 2021 with ongoing strengthening and stricter enforcement in 2025-2026.[102]

Figure 20 EPR laws and product schemes around the world (Kaffine and O'Reilly, 2015)



2010-20s – EPR evolving to support circularity and fill gaps

The last few years have seen important innovations. Different types of EPR schemes are emerging. Some are simply a financial levy, for example, Netherlands uses EPR to pay for cigarette butt litter clean up. Others are comprehensive schemes impressively delivering government policy objectives influencing product design and circularity.

Around 2010 some PROs in Europe began introducing a bonus-malus levy system, now known as eco-modulated fees. In the case of packaging PROs, they have been incentivising improvements in design resulting in almost complete phase-out of non-recyclables and also the inclusion of recycled content. The bonus-malus fee system is a highly efficient and equitable financial signal for all producers that accelerates action and improves the financial case in aligning with government policy targets such as increasing post-consumer recycled plastics back into packaging. Eco-modulation is possible when PROs have accurate longitudinal data and good economic modelling, such as adopted by PROs in Italy, Netherlands, Belgium and France.

In France, ReFashion, the clothing PRO has introduced a special bonus system which contributes member funds to repair of clothing in response to French Government policies on clothing waste and minimising costs of repair. The French electronics PRO introduced eco-modulated fees between 2010-15.[103] Given the success of eco-modulated fees, other European nation PROs for electronic goods are considering how to introduce them for similar beneficial improvements for their consumers.[104]

All this has implications for Australian manufacturers and consumers. The data and years of impressive results from mandatory EPR have enabled European governments to be confident in setting regulations upon all products, including international imports, for improved circularity of products and packaging. These include the 2024 Packaging and Packaging Waste Regulations that ban unrecyclable packaging and penalise missed recycled content targets from 2030, the 2024 Eco-Product Design Regulations for clothing and electronic goods including lifespan labelling, and soon to be released the new overarching 2026 Circular Economy Act.

The rest of the world is now following with more nations passing laws mandating producers take responsibility for their products and contribute to a more sustainable future.

Table 13 Minister's Priority List - Status of stewardship schemes (not comprehensive)

PRODUCT ON MINISTER'S LIST	WHEN LISTED	PRO NAME	MODEL	ACCREDITED BY GOVT
Photovoltaic systems, electrical and electronic products	2016-17 - 2022-23	None	N/A	N/A
Oil containers	2016-17 - 2022-23	None	N/A	N/A
Problematic & unnecessary single use plastics	2021-22 - 2022-23	APCO	Co-regulated	N/A
Clothing textiles	2021-22 - 2023-24	Seamless	Voluntary, industry led	N
Tyres	2022-23 - 2023-24	Tyre Stewardship Australia	Voluntary, industry led	Y
Plastics in healthcare products in hospitals	2022-23 - 2023-24	None	N/A	N/A
Mattresses	2022-23 - 2023-24	Australian Bedding Stewardship Council (ABSC)	Voluntary, industry led	N
Child car seats	2022-23 - 2023-24	SeatCare	N/A	N

https://www.transparency.gov.au/publications/agriculture-water-and-the-environment/department-of-agriculture-water-and-the-environment-and-waste-reduction-act-2020

D	RECOMMENDED ACTIONS FOR INDUSTRY IN MINISTER'S LIST	DEADLINE FOR INDUSTRY ACTION
	Removed from list as the Australian Government has committed to develop a mandatory product stewardship scheme to reduce waste from small electrical products and PV systems	N/A
	Removed from list as the Australian Government is considering regulation for oil containers through the packaging reform work.	N/A
	Removed from list as Australian governments have committed to national packaging reforms.	N/A
	2023-24 Support Seamless to the extent that it is financially viable and has secured a clear pipeline of brands committed to the scheme.	30 June 2024
	2023-24 Must demonstrate improved product stewardship actions e.g. expanding and improving the Tyre Product Stewardship Scheme and product design for circularity. To avoid government regulation, tyre importers not currently members of the TSA should commence formal participation.	Nov 2024
	2023-24 Must demonstrate improved product stewardship actions e.g.: expanding and improving any existing product stewardship schemes; product design improvements and supply chain initiatives to increase circularity. Commence design improvements to improve homogeneity and circularity.	Nov 2024
	2023-24 Must show measurable product stewardship actions. Expand industry-led stewardship scheme (reduce free riders). mprove product design. Strengthen supply chain circular economy initiatives. ABSC to report on membership, free riders, and barriers to scheme success.	Nov 2024
	2023-24 Companies not currently in the voluntary scheme should commence formal participation. Design for durability, repair, reuse, and recycling. Supply chain actions supporting circular economy outcomes.	Nov 2024

/department-of-agriculture-water-and-the-environment-annual-report-2020-21/annual-reports-on-the-operation-of-legislation/recycling-

7.3 POLICY QUESTIONS ON CHOOSING EPR AND MODELS

As nations grapple with decisions on how to implement EPR and which model to apply there are some policy choice questions, all of which are considered in this report. To some extent they become a Decision Tree

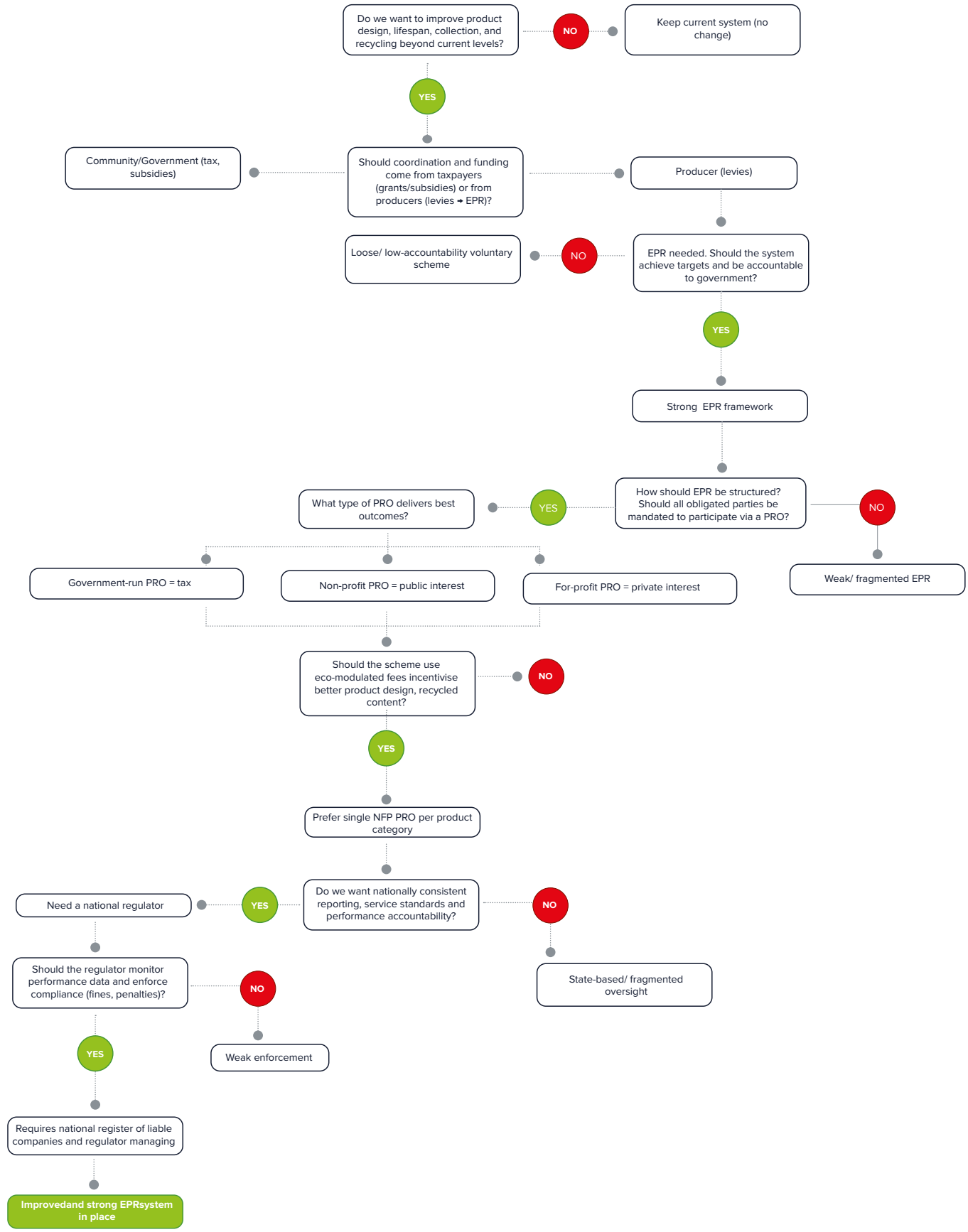


Figure 19 The Decision Tree

BIBLIOGRAPHY

1 Productivity Commission 2026, ***Annual productivity bulletin 2026***, Productivity Commission, Canberra, viewed 14 May 2026, https://www.pc.gov.au/ongoing/productivity-insights/bulletins/bulletin-2026/

2 Circular Economy Ministerial Advisory Group (CEMAG) 2024, ***The Circular Advantage: Unlocking innovation, environmental resilience, productivity and net zero opportunities through a uniquely Australian circular economy transition***, Department of Climate Change, Energy, the Environment and Water (DCCEEW), Canberra, viewed 22 May 2026, available at: DCCEEW Final Report PDF.

3 Australian Retail Council (2026) ***Retailers and households paying the price for regulatory chaos***. Available at: https://www.retail.org.au/media/retailers-and-households-paying-the-price-for-regulatory-chaos (Accessed: 26 May 2026).

4 Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023) ***Wired for change: Regulation for small electrical products and solar photovoltaic systems waste***. Canberra: Australian Government. Available at: https://storage.googleapis.com/files-au-climate/climate-au/p/prj2748908c878a1b4b81a54/public_assets/Wired%20for%20change%20Regulation%20for%20waste%20small%20electrical%20products%20and%20solar%20photovoltaic%20systems.pdf (Accessed: 19 May 2026).

5 Circular Economy Ministerial Advisory Group (CEMAG) 2024, ***The Circular Advantage: Unlocking innovation, environmental resilience, productivity and net zero opportunities through a uniquely Australian circular economy transition***, Department of Climate Change, Energy, the Environment and Water (DCCEEW), Canberra, viewed 22 May 2026, available at: DCCEEW Final Report PDF.

6 EXPRA (n.d.) **BELIEFS**. Available at: https://expra.eu/beliefs/ (Accessed: 15 April 2026).

7 Sustainable Packaging Coalition (no date) Extended Producer Responsibility – SPC's Guide. Available at: https://epr.sustainablepackaging.org (Accessed: 23 March 2026)

8 Organisation for Economic Co-operation and Development (OECD) (2024) ***Extended Producer Responsibility: Basic facts and key principles***. OECD Environment Policy Papers, No. 41. Paris: OECD Publishing. Available at: https://doi.org/10.1787/67587b0b-en (Accessed: 23 March 2026)

9 World Bank (2025) ***Document details page: 099112525234525600***. Available at: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099112525234525600 (Accessed: 27 April 2026).

10 Malooly, L., n.d. ***R-Strategies for a Circular Economy***. Circularise. Available at: Circularise article page [Accessed 25 May 2026].

11 EXPRA (n.d.) **BELIEFS**. Available at: https://expra.eu/beliefs/ (Accessed: 15 April 2026).

12 Soft Plastics Stewardship Australia (SPSA) 2025, ***The Global Stewardship Playbook webinar series***, EXPRA presentation, SPSA, viewed 18 May 2026, https://spsa.au/webinarseries/

13 Productivity Commission (2025) ***Australia's circular economy: unlocking the opportunities – Overview***. Available at: https://assets.pc.gov.au/2025-10/circular-economy-overview.pdf (Accessed: 27 April 2026).

14 Australian Government Department of Agriculture, Fisheries and Forestry (2026) ***About levies***. Available at: Australian Government Department of Agriculture, Fisheries and Forestry (Accessed: 20 May 2026).

15 Organisation for Economic Co-operation and Development (OECD) (2016) ***Extended Producer Responsibility: Updated Guidance for Efficient Waste Management – Policy Highlights***. Available at: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/extended-producer-responsibility-and-economic-instruments/Extended-producer-responsibility-Policy-Highlights-2016-web.pdf (Accessed: 28 April 2026).

16 Brazil (2025) ***Decreto nº 12.688, de 21 de outubro de 2025***. Available at: https://www.planalto.gov.br/ccivil_03/_ato2023-2026/2025/decreto/D12688.htm (Accessed: 23 April 2026).

17 Mordor Intelligence (n.d.) **PACKAGING INDUSTRY IN BRAZIL**. Available at: https://www.mordorintelligence.com/industry-reports/packaging-industry-in-brazil (Accessed: 23 April 2026).

18 S&P Global (2025) **DECREE REGULATING RECYCLED PLASTIC IN BRAZIL TO BE SIGNED IN OCTOBER: MINISTRY**. Available at: https://www.spglobal.com/energy/en/news-research/latest-news/chemicals/100725-decree-regulating-recycled-plastic-in-brazil-to-be-signed-in-october-ministry (Accessed: 23 April 2026).

19 Brazil Stock Guide (2025) **BRAZIL PLASTIC RECYCLING DECREE 12.688: 2040 TARGET**. Available at: https://brazilstockguide.com/insights/brazil-plastic-recycling-decree-12688-2040-target (Accessed: 23 April 2026).

20 Department of Resources Recycling and Recovery (CalRecycle) (2025) **ECONOMIC AND FISCAL IMPACT STATEMENT (STD 399) APPENDIX INTO SB 54 PLASTIC POLLUTION PREVENTION AND PACKAGING PRODUCER RESPONSIBILITY ACT REGULATIONS**. Available at: https://www2.calrecycle.ca.gov/Docs/Web/129129 (Accessed: 23 April 2026).

21 Scottish Government (2024) **EXTENDED PRODUCER RESPONSIBILITY FOR PACKAGING: FULL BUSINESS AND REGULATORY IMPACT ASSESSMENT (BRIA)**. Available at: https://www.gov.scot/publications/extended-producer-responsibility-packaging-full-business-regulatory-impact-assessment-bria/ (Accessed: 23 April 2026).

22 Marques, R.C. and da Cruz, N.F. (2016) ***Recycling and extended producer responsibility: the European experience*** *https://www.europenowjournal.org/2016/11/30/recycling-and-extended-producer-responsibility-the-european-experience* (Accessed: 23 April 2026).

23 OECD (2021) ***Modulated fees for extended producer responsibility schemes (EPR)***. OECD Environment Working Papers. Paris: OECD Publishing. Available at: https://doi.org/10.1787/2a42f54b-en (Accessed: 23 April 2026).

[24] WRAP (2023) TEXTILES POLICY OPTIONS AND COST BENEFIT ANALYSIS. Available at: https://www.wrap.ngo/resources/report/textiles-policy-options-and-cost-benefit-analysis (Accessed: 23 April 2026).

[25] Circular Economy Ministerial Advisory Group (CEMAG) 2024, ***The Circular Advantage: Unlocking innovation, environmental resilience, productivity and net zero opportunities through a uniquely Australian circular economy transition***, Department of Climate Change, Energy, the Environment and Water (DCCEEW), Canberra, viewed 22 May 2026, available at: DCCEEW Final Report PDF.

[26] World Bank (n.d.) ***Open Knowledge Repository document (ab9bce34-0921-4887-8c0d-65ed7b303aaf)***. Available at: https://openknowledge.worldbank.org/bitstreams/ab9bce34-0921-4887-8c0d-65ed7b303aaf/download (Accessed: 15 April 2026).

[27] OECD (n.d.) ***Resource efficiency and circular economy***. Available at: https://www.oecd.org/en/topics/policy-issues/resource-efficiency-and-circular-economy.html (Accessed: 15 April 2026).

[28] Productivity Commission (2025) ***Australia's circular economy: unlocking the opportunities – Overview***. Available at: https://assets.pc.gov.au/2025-10/circular-economy-overview.pdf (Accessed: 27 April 2026).

[29] Circular Economy Ministerial Advisory Group (CEMAG) 2024, ***The Circular Advantage: Unlocking innovation, environmental resilience, productivity and net zero opportunities through a uniquely Australian circular economy transition***, Department of Climate Change, Energy, the Environment and Water (DCCEEW), Canberra, viewed 22 May 2026, available at: DCCEEW Final Report PDF.

[30] Australian Circular Benchmarks (n.d.) ***Australian Circular Benchmarks Dashboard***. Available at: https://australiancircularbenchmarks.org (Accessed: 27 April 2026).

[31] Australian Bureau of Statistics (ABS) (2020) ***Waste Account, Australia, Experimental Estimates, 2018–19***. Available at: https://www.abs.gov.au/statistics/environment/environmental-accounts/waste-account-australia-experimental-estimates/latest-release (Accessed: 17 May 2026).

[32] Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) ***National Waste and Resource Recovery Reporting***. Available at: https://www.dcceew.gov.au/environment/protection/waste/publications/national-waste-resource-recovery-reporting (Accessed: 14 April 2026)

[33] The Global Economy (2023) ***Australia: Carbon dioxide (CO2) emissions per capita***. Available at: https://www.theglobaleconomy.com/australia/Carbon_dioxide_emissions_per_capita (Accessed: 14 April 2026)

[34] Australian Packaging Covenant Organisation (APCO) (2021) ***New APCO report maps the state of packaging in Australia and progress on Australia's 2025 national packaging targets***. Available at: https://apco.org.au/news/20Y4a00000000Q9EAI (Accessed: 17 May 2026).

[35] Australian Packaging Covenant Organisation (APCO). (2025) ***Australian Packaging Consumption and Recovery Data 2023–24***. Version 1. Available at: APCO report PDF (Accessed: 20 May 2026).

[36] Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023) ***Wired for change: Regulation for small electrical products and solar photovoltaic system waste***. Canberra: Commonwealth of Australia. Available at: https://www.dcceew.gov.au/publications (Accessed: 19 May 2026).

[37] Australian Bedding Stewardship Council 2024, ***End-of-life mattresses are a growing problem not only in Australia but globally***, Australian Bedding Stewardship Council, viewed 14 May 2026, https://www.beddingstewardship.org.au/end-of-life-mattresses-are-a-growing-problem-not-only-in-australia-but-globally.

[38] The Australia Institute 2024, ***Textiles waste in Australia***, Discussion paper, The Australia Institute, Canberra, viewed 14 May 2026, https://australiainstitute.org.au/wp-content/uploads/2024/05/The-Australia-Institute-Textiles-Waste-In-Australia-Web.pdf.

[39] Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) ***Australian plastics flows and fates reporting***, Australian Government, viewed 14 April 2026, https://www.dcceew.gov.au/environment/protection/waste/plastics-and-packaging/australian-plastic-flows-fates-reporting

[40] Australian Council of Recycling (ACOR) (2025) ***Securing Australia's Plastic Recycling Future: Summary Report***. Available at: https://acor.org.au/wp-content/uploads/2026/01/251215-Securing-Australias-Plastic-Recycling-Future-Summary-Report.pdf (Accessed: 20 May 2026).

[41] Australian Council of Recycling (ACOR) (2025) ***Securing Australia's Plastic Recycling Future: Summary Report***. Available at: https://acor.org.au/wp-content/uploads/2026/01/251215-Securing-Australias-Plastic-Recycling-Future-Summary-Report.pdf (Accessed: 20 May 2026).

[42] DCCEEW (2026) ***Packaging waste and recycling in Australia***, Australian Government, viewed 14 April 2026, https://www.dcceew.gov.au/environment/protection/waste/packaging.

[43] Sustainability Matters (2024) ***Analysis shows Australia's plastic recycling future at risk***, Sustainability Matters, viewed 14 April 2026, https://www.sustainabilitymatters.net.au/content/waste/news/analysis-shows-australia-s-plastic-recycling-future-at-risk-809196910.

[44] Australian Retail Council (2026) ***Retailers and households paying the price for regulatory chaos***. Available at: https://www.retail.org.au/media/retailers-and-households-paying-the-price-for-regulatory-chaos (Accessed: 28 April 2026).

[45] Department of Climate Change, Energy, the Environment and Water (2026) ***Environment Ministers' Meeting Communiqués*** [online]. Available at: https://www.dcceew.gov.au/about/news/stay-informed/communiques (Accessed: 14 May 2026).

[46] Australian Council of Recycling (ACOR) & Rennie Advisory 2025, ***Securing Australia's Plastic Recycling Future***, ACOR, Canberra, viewed 14 May 2026, https://acor.org.au/wp-content/uploads/2026/03/260309-Securing-Australias-Plastic-Recyling-Future-report-update.pdf.

[47] Battery Stewardship Council (forthcoming 2026) ***Title of report***. Available at: Battery Stewardship Council (Accessed: 20 May 2026).

[48] Productivity Commission (2025) ***Australia's circular economy: unlocking the opportunities – Overview***. Australian Government, Canberra. Available at: https://assets.pc.gov.au/2025-10/circular-economy-overview.pdf (Accessed: 27 April 2026).

[49] Australian Government (2020) ***Recycling and Waste Reduction Act 2020 (Cth)***. Available at: https://www.legislation.gov.au/C2020A00119/latest/text (Accessed: 28 April 2026).

[50] Australian Government, Department of Climate Change, Energy, the Environment and Water (2024) ***Minister's Priority List 2023–24***. Available at: https://www.dcceew.gov.au/environment/protection/waste/product-stewardship/ministers-priority-list-23-24 (Accessed: 27 April 2026).

[51] Product Stewardship Centre of Excellence (2024) ***COE Annual Report 2024***. Available at: https://stewardshipexcellence.com.au/wp-content/uploads/2025/01/PSCOE_108060_COE-Annual-Report-2024_06.pdf (Accessed: 27 April 2026).

[52] Australian Government Department of Climate Change, Energy, the Environment and Water (n.d.) ***Product stewardship schemes***. Available at: https://www.dcceew.gov.au/environment/protection/waste/product-stewardship/products-schemes (Accessed: 27 April 2026).

[53] Department of Climate Change, Energy, the Environment and Water (DCCEEW) (no date) ***Product stewardship for oil program***. Available at: https://www.dcceew.gov.au/environment/protection/used-oil-recycling/product-stewardship-oil-program (Accessed: 28 April 2026).

[54] Institute for Sustainable Futures (2025) ***Fifth Independent Review of the Product Stewardship (Oil) Act 2000***, prepared for the Department of Climate Change, Energy, the Environment and Water (DCCEEW). Available at: https://www.dcceew.gov.au/sites/default/files/documents/fifth-product-stewardship-oil-review-report.pdf (Accessed: 17 May 2026).

[55] Belgian regulator webinar, March 2026: Circular Economy Reporting in Focus: The Draft Simplified ESRS E5 (EFRAG webinar)

[56] Department of Climate Change, Energy, the Environment and Water (2026) ***Environment Ministers' Meeting Communiqués*** [online]. Available at: https://www.dcceew.gov.au/about/news/stay-informed/communiques (Accessed: 14 May 2026).

[57] Organisation for Economic Co-operation and Development (OECD) (2016) ***Extended Producer Responsibility: Updated Guidance for Efficient Waste Management***. Available at: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/extended-producer-responsibility-and-economic-instruments/Extended-producer-responsibility-Policy-Highlights-2016-web.pdf (Accessed: 28 April 2026).

[58] Parliament of Australia (2020) ***Bills Digest: 20BD109 – Recycling and Waste Reduction (Repeal of Carbon Tax Compensation Arrangements) Bill 2020*** [online]. Available at: https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd1920a/20bd109 (Accessed: 14 May 2026).

[59] Europen (2026) EPR system performance in the European Union. Available at: CIRCPACK x EUROPEN EPR system performance in the European Union (Accessed:22 June 2026).

[60] Pod črto (2023) ***The problems with plastics: Slovenia risks EU fines while the new EPR regulation is under constitutional review (Part 2)***. Available at: https://podcrto.si/the-problems-with-plastics-slovenia-risks-eu-fines-while-the-new-epr-regulation-is-under-constitutional-review-part-2/ (Accessed: 28 April 2026).

[61] Euclid Law (2025) ***ECJ Confirms Advocate General's Opinion in INTERZERO Case (C-254/23): A Milestone for Services of General Economic Interest and Environmental Policy***. Available at: https://euclid-law.eu/a-milestone-for-services-of-general-economic-interest-and-environmental-policy/ (Accessed: 28 April 2026).

[62] European Recycling Platform (ERP) (2025) ***Poland: Important changes for packaging***, May. Available at: https://erp-recycling.org (Accessed: 14 April 2026).

[63] CMS Law (2025) ***Revolution in the EPR system and new challenges for entrepreneurs***. Available at: https://cms.law/en/pol/legal-updates/revolution-in-the-epr-system-and-new-challenges-for-entrepreneurs (Accessed: 14 April 2026).

[64] Europen (2026) EPR system performance in the European Union. Available at: CIRCPACK x EUROPEN EPR system performance in the European Union (Accessed:22 June 2026).

[65] Australian Government Department of the Environment, n.d. ***TA Review***. [PDF] Available at: Web Archive copy [Accessed 25 May 2026].

[66] North Data (n.d.) **EKO-KOM A.S., PRAHA (IČO 25134701)**. Available at: https://www.northdata.com/Eko-Kom%20a%C2%B7s%C2%B7,%20Praha/ICO%2025134701 (Accessed: 15 April 2026).

[67] Australian Competition and Consumer Commission (ACCC) 2023, ***Application received – 04.12.23 – PR version – AA1000655 Tyre Stewardship Australia Limited***, public register document, ACCC, viewed 3 June 2026, https://www.accc.gov.au/system/files/public-registers/documents/Application%20Received%20-%2004.12.23%20-%20PR%20VERSION%20-%20AA1000655%20Tyre%20Stewardship%20Australia%20Limited.pdf?ref=0&download=y

[68] Circle Economy 2020, ***The Netherlands***, Circularity Gap Reporting Initiative, viewed 14 May 2026, https://www.circularity-gap.world/netherlands

[69] Department for Environment, Food & Rural Affairs (Defra) 2025, ***PackUK: About us – Packaging Extended Producer Responsibility (pEPR) scheme administrator***, GOV.UK, viewed 18 May 2026, https://www.gov.uk/government/organisations/packuk/about.

[70] Soft Plastics Stewardship Australia (SPSA) 2026, ***The Global Stewardship Playbook webinar series***, SPSA, viewed 18 May 2026, https://spsa.au/webinarseries/

[71] Australian Competition and Consumer Commission (ACCC) 2025, ***Application – 18.03.25 – PR – AA1000694 Battery Stewardship Council***, public register document, ACCC, viewed 3 June 2026, https://www.accc.gov.au/system/files/public-registers/documents/Application%20-%2018.03.25%20-%20PR%20-%20AA1000694%20Battery%20Stewardship%20Council.pdf.

[72] Cobat (n.d.) ***About us***. Available at: Cobat About Us (Accessed: 21 May 2026).

[73] Cobat RAEE (n.d.) ***Cobat RAEE: Home***. Available at: Cobat RAEE (Accessed: 21 May 2026).

[74] Cobat (2024) ***Company Profile***. Available at: Cobat Company Profile PDF (Accessed: 21 May 2026).

[75] Cobat RIPA (2024) ***Bilancio di Sostenibilità 2024***. Available at: Cobat RIPA Sustainability Report PDF (Accessed: 21 May 2026).

[76] Australian Product Stewardship Centre, 2023. ***Evaluating Product Stewardship Benefits and Effectiveness – Summary Report***. [PDF] May 2023. Available at: Evaluating Product Stewardship Benefits and Effectiveness – Summary Report [Accessed 25 May 2026].

[7] Carpet America Recovery Effort (CARE) (2025) Q3 2025 CARE CA Public Final. Available at: CARE report PDF(Accessed: 21 May 2026)

[78] Mattress Recycling Council (2024) Connecticut Annual Report 2023–2024. Available at: MRC Annual Report PDF(Accessed: 21 May 2026)

[79] European Commission, n.d. ***Refashion compliance mechanism – ecosystem enabler***. Transition Pathways for the Textiles Ecosystem: Best Practices. Available at: Refashion compliance mechanism – ecosystem enabler [Accessed 25 May 2026].

80 Organisation for Economic Co-operation and Development (OECD) (2016) ***Extended Producer Responsibility: Updated Guidance for Efficient Waste Management – Policy Highlights***. Available at: https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/extended-producer-responsibility-and-economic-instruments/Extended-producer-responsibility-Policy-Highlights-2016-web.pdf (Accessed: 28 April 2026).

81 Human Environment and Transport Inspectorate (ILT) (no date) ***Extended Producer Responsibility***. Available at: https://english.ilent.nl/topics/extended-producer-responsibility (Accessed: 28 April 2026).

82 European Commission (2014) Development of Guidance on Extended Producer Responsibility (EPR): Final Report. Brussels: Directorate-General for Environment. Available at: https://www.ecologic.eu/sites/default/files/publication/2021/2670-07-Guidance-on-EPR-F

83 Tire Stewardship BC (2025) ***2024 Annual Report***. Available at: TSBC Annual Report PDF (Accessed: 21 May 2026).

84 Australian Packaging Covenant Organisation (APCO), 2025. ***APCO Australian Packaging Consumption and Recovery Data 2023–24***. [PDF] Version 1. Available at: APCO Australian Packaging Consumption and Recovery Data 2023–24 [Accessed 25 May 2026].

85 Europen (2026) EPR system performance in the European Union. Available at: CIRCPACK x EUROPEN EPR system performance in the European Union (Accessed:22 June 2026).

86 OECD, Modulated fees for extended producer responsibility schemes, 2021 https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/11/modulated-fees-for-extended-producer-responsibility-schemes-epr_bbf84337/2a42f54b-en.pdf

87 CONAI (2025) ***Presentation at EU Packaging Waste Conference***, Brussels, May 2025.

88 Australian Competition and Consumer Commission (ACCC) 2025, *End-of-life battery disposal scheme allowed to continue*, media release, 3 November, ACCC, viewed 3 June 2026, *https://www.accc.gov.au/media-release/end-of-life-battery-disposal-scheme-allowed-to-continue*

89 Rethink Plastic Alliance, Extended Producer Responsibility and Ecomodulation of Fees Report, 2021, https://rethinkplasticalliance.eu/wp-content/uploads/2021/08/Ecologic-report-EPR-and-ecomodulation-August2021-1.pdf

90 Recupel (2025) ***Electronics campaign (May 2025)***. Recupel Belgium. Available at: https://www.recupel.be/ (Accessed: 17 April 2026).

91 Stichting Nationaal (W)EEE Register (NWR) (n.d.) ***About NWR***. Available at: NWR About page (Accessed: 21 May 2026).

92 ADEME 2026, ***Filière éléments d'ameublement (EA) – Responsabilité élargie du producteur***, Filières REP ADEME, viewed 18 May 2026, https://filieres-rep.ademe.fr/filieres-REP/filiere-EA.

93 RetourMatras (no date) ***EPR for mattresses – what you should know about it***. Available at: https://www.retourmatras.nl/epr-for-mattresses/ (Accessed: 28 April 2026).

94 Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management (no date) ***Austrian Environment Agency and European Commission***. Available at: https://www.bmluk.gv.at/en/topics/climate-environment/environmental-protection-company-eia/emas/austrian-environment-agency-and-european-commission.html (Accessed: 28 April 2026).

95 European Environment Agency (EEA) (2025) ***Austria: Municipal and packaging waste management – country profile***. Available at: https://www.eea.europa.eu/en/topics/in-depth/waste-and-recycling/municipal-and-packaging-waste-management-country-profiles-2025/at-municipal-waste-factsheet.pdf/@@download/file (Accessed: 28 April 2026).

96 Adams, M. (2026) 'Money and responsibility: How European PROs, regulators and retailers deal with "free-riders" for a level playing field', presentation delivered at ***The Global Stewardship Playbook Webinar Series***, Session 5, 12 March 2026, Soft Plastics Stewardship Australia. Available at: SPSA Webinar Series (Accessed: 20 May 2026).

97 Interregional Packaging Commission (IRPC) (n.d.) ***History of the IRPC***. Available at: https://www.ivcie.be/en/history-of-the-irpc/ (Accessed: 15 April 2026)

98 International Solid Waste Association (ISWA) (2025) ***EPR in the Plastic Treaty: A Practical Roadmap for Policy and Commitment***. Available at: https://www.iswa.org/wp-content/uploads/2025/07/EPR-in-the-Plastic-Treaty-A-Practical-Roadmap-for-Policy-and-Commitment.pdf (Accessed: 26 May 2026).

99 Lindhqvist, T. and Lidgren, K. (1990) Models for Extended Producer Responsibility. Stockholm: Swedish Ministry of the Environment.

100 Kaffine, D. and O'Reilly, P. (2015) ***What have we learned about EPR in the past decade?*** Available at: https://www.researchgate.net/publication/360783806_What_Have_We_Learned_About_Extended_Producer_Responsibility_in_the_Past_Decade_A_Survey_of_the_Recent_EPR_Economic_Literature (Accessed: 14 April 2026)

101 Cancillería (Colombia) (n.d.) ***Normograma / Compilación Jurídica – Documento 2717***. Available at: https://www.cancilleria.gov.co/sites/default/files/Normograma/docs/arbol/2717.htm (Accessed: 20 May 2026).

102 South African Government (2025) ***Government Gazette No. 53243, Notice 6554***. Available at: https://www.gov.za/sites/default/files/gcis_document/202508/53243gon6554.pdf (Accessed: 20 May 2026).

103 Refashion (2026) *Eco-modulation: a driver for more sustainable fashion.* Available at: https://pro.refashion.fr/en/marketer/eco-modulation-a-driver-for-more-sustainable-fashion (Accessed: 24 June 2026).

104 Sachdeva, A., Araujo, A. and Hirschnitz-Garbers, M. (2021) *Extended Producer Responsibility and Ecomodulation of Fees. Ecologic Institute.* Available at: https://www.ecologic.eu/18226 (Accessed: 24 June 2026).

One Planet Consulting

Helen Millicer, Director,
GAICD
t: +61 (0) 413 875 872
e: helen@helenmillicer.com
w: www.helenmillicer.com