

Product Stewardship Centre of Excellence

2023
Annual Report



Product Stewardship Centre of Excellence

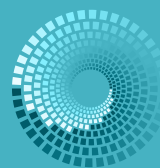
2023 Annual Report

Contents

Foreword	3
Message from Centre Directors	4
State of Play	6
Minister's Priority List	12
Product Stewardship Excellence Awards	18
Centre Activities	20
Team	22

Cover page photography courtesy of:

- Tread Lightly ASGA
- Australian Fashion Council/Unsplash/Lucas Hoang
- Dairy Australia
- Getty Images
- Shutterstock



**Product
Stewardship
Centre of
Excellence**

The Product Stewardship Centre of Excellence was established in December 2020 by a consortium of UTS Institute for Sustainable Futures, the Australian Industry Group and Cox Inall dentsu in partnership with the Australian Government through The Department of Climate Change, Energy, the Environment and Water. It was established with the assistance of a grant through the National Product Stewardship Investment Fund.

Foreword



As Vice President of the US-based Product Stewardship Institute (PSI), I was thrilled to be invited to be the international judge for the Australian Product Stewardship Awards this year, hosted by the Product Stewardship Centre of Excellence. I was curious to see how businesses in Australia are incorporating stewardship and circularity into such a broad range of products and services.

As well, I wondered how that compared to what I have seen in America, and elsewhere. It is inspiring to see what truly visionary companies and entrepreneurs in Australia have developed to bring greater circularity and stewardship to their business models. Every proposal, even those of smaller scale, is a step forward ... and a contribution to a more sustainable future and responsible prosperity. Several times, I found myself saying “why didn’t anyone think of that before?”

Each of us plays a critical role in bringing about change. Particularly through our purchasing habits.

The conversations with the judges were familiar, minus the accents of course. The sharing of perspectives, the differing opinions about what was most important, and the openness to seeing things differently. As a long-time board member of the Product Stewardship Institute, I found these interactions with the judging panel similar to the various stakeholder meetings we have in the States. Similar challenges, similar points of emphasis, and similar dissensions. The Product Stewardship Centre of Excellence and PSI are similar in focus and purpose – to promote circularity through effective producer responsibility.

I am writing this at a time of year in the Northern Hemisphere when a winter wonderland approaches, and who among us can resist the urge to pick up a snow globe, survey the miniature world inside, and give it a good shake? The change in perspective can be mesmerizing.

When I think of the incorporation of product stewardship and circularity into commerce, and ensuing better environmental outcomes, I think of the snow globe and the importance of ‘shaking things up’. Government and consumers can shake up a stagnant market focused on performance and profit. Innovators can embrace the opportunity to gain market share through new competitive variables: stewardship sustainability and circularity. Let’s continue to shake things up. When the snow re-settles, we will all be in a better place.

Tom Metzner

Vice President – Product Stewardship Institute (USA)

Environmental Analyst – Connecticut Department of Environmental Protection

Message from Centre Directors

This year's Annual Report tells a story of evolution for the Centre and ongoing innovation and action on product stewardship in Australia.

We are delighted to share the third Annual Report of the Product Stewardship Centre of Excellence. The last 12 months have been very positive and productive for the Centre in both establishing itself as a separate legal entity and in furthering the adoption of product stewardship principles into business by supporting, mentoring, and educating stakeholders across product and material supply chains.

One of the main highlights of the year was the release of the Benefits and Effectiveness of Product Stewardship study. The study was led by the UTS Institute for Sustainable Futures, in collaboration with the Centre, and supported by Dentsu Creative and the Australian Industry Group. This first-ever comprehensive evaluation of product stewardship activities in Australia was funded by the Australian Government.

The study involved compiling and analysing publicly-reported environmental, social, and economic performance data of nearly 100 current and emerging product stewardship initiatives – these are now available on the Product Stewardship Gateway. The study surveyed over 600 businesses, 1000 consumers, nearly 100 local councils, and interviewed around 60 local and international stewardship actors and experts.

These reports and webinars include useful guidance on product stewardship actions to prevent harm to the environment and human health across the three stages of the product life cycle. Detailed information is also available on how to measure and report environmental, social, and economic performance.



Importantly, the study showed how product stewardship in Australia is delivering significant positive environmental benefits across a diversity of industry sectors and the five essential characteristics of effective product stewardship (1) High level of industry and/or business participation and investment, whether it is collective action by a group of producers or an individual producer. (2) Clearly defined objectives and performance measures. (3) Good governance through well-defined roles and responsibility and public reporting. (4) The use of financial incentives and penalties. (5) Substantial investment in marketing.

The Centre, assisted by its specialist advisers, continued to provide ongoing support and guidance to many individual businesses; industry associations; federal, state and territory governments; local councils as well as existing and emerging product stewardship schemes in the design, establishment, expansion, and refinement of initiatives and solutions to environmental and human health problems created by products when manufactured, used and at end-of-life.

Our popular and engaging webinar series covered a diverse range of topics and themes on the benefits and effectiveness of product stewardship including how to avoid greenwashing and the role of repair in product stewardship.

The Centre's freely accessible online library of white papers, practice notes and case studies continues to grow in size and scope, offering useful information, examples of best practice and guidance to build knowledge and capability.

An important role of the Centre is to provide independent advice on product stewardship priorities to the Federal Environment Minister and the Australian Government's Department of Climate Change, Energy, the Environment and Water. This role has expanded to include advice to, and engagement with, state and territory governments.

The Centre also made a detailed submission on the role of product stewardship in operationalising the circular economy to the Circular Economy Ministerial Advisory Group. This Group was established by the Commonwealth Environment and Water Minister to provide advice on opportunities associated with Australia's circular economy transition.

To celebrate and recognise the product stewardship achievements of businesses and other organisations, the Centre held the third Annual Product Stewardship Excellence Awards in Sydney in November. Congratulations to our category award winners (see page 18) and Product Stewardship Champion Sophi MacMillan from ResiLoop.

As the Centre has now established itself as a separate legal entity, we will be launching our new partnership program "Creating Sustainable Futures" in early 2024. This program is an opportunity for businesses, government agencies, local councils, universities, financial investors/fund managers and not-for-profit organisations to partner with the Centre to transform their product value chain and create a sustainable future.

Alongside this, the Centre will also launch its e-learning training hub for product stewardship professionals and other stakeholders eager to undertake continuing professional development.

Genuine collaboration is essential, and we look forward to what 2024 will bring in partnership with many other proactive organisations seeking to reduce the environmental and human health impacts of products. We trust this Annual Report provides a useful summary of the Centre's achievements and activities during 2023.

The Centre will continue to support, mentor, enable and encourage producers, brands, retailers, and associations to be ambitious and comprehensive as they shift towards higher levels of environmental performance, transparency, and responsibility.

**John Gertsakis, Rose Read, Dr Nick Florin,
Louise McGrath, Tim Powell**

Centre Directors

State of Play

Introduction

There has been significant product stewardship activity in 2023, including;

- the launch of three new initiatives in 2023 (Seamless, ResiLoop and the Bedding Stewardship Scheme) as a result of seed funding provided by the Commonwealth Government’s National Product Stewardship Investment Fund;
- more proactive updates and management of the Minister’s Priority List;
- ongoing regulatory reforms focused on plastics, packaging, e-products and photovoltaic systems; and
- proactive outreach and awareness-raising activities by the Product Stewardship Centre of Excellence and many other organisations working on product stewardship initiatives.

Insights from the Benefits and Effectiveness of Product Stewardship study

From September 2021 to May 2023, the Centre partnered with UTS-ISF, Ipsos, Dentsu and WSP Digital to conduct research into how product stewardship action in Australia is effective in reducing the environmental and human health impacts of products and materials.¹ The findings highlight the wide variety of benefits that product stewardship initiatives are delivering, including:

- *Environmental benefits* such as eliminating hazardous materials, conserving resources and materials, preventing and reducing waste, and reducing greenhouse gas emissions;
- *Social benefits* such as improving workers’ health and safety across the supply chain and increasing accessibility to repair services or collection points for recycling; and,
- *Economic benefits* such as job creation, upskilling, reskilling,

and creating new markets for recovered materials.

The study also sought to understand both barriers and enablers for engaging with product stewardship initiatives. One important barrier is low levels of *awareness and understanding of product stewardship*. Surveys of businesses and members of the general population found limited awareness and understanding of the concept of product stewardship and the circular economy.² Terminology associated with concepts such as ‘sustainable product design’ and ‘product take-back’ are more familiar to businesses, whereas ‘sustainability’ and ‘reducing environmental impacts of products’ resonated with the general population. Relating product stewardship to ‘sustainable product design’ will increase the relevance of communications for business and general population audiences.

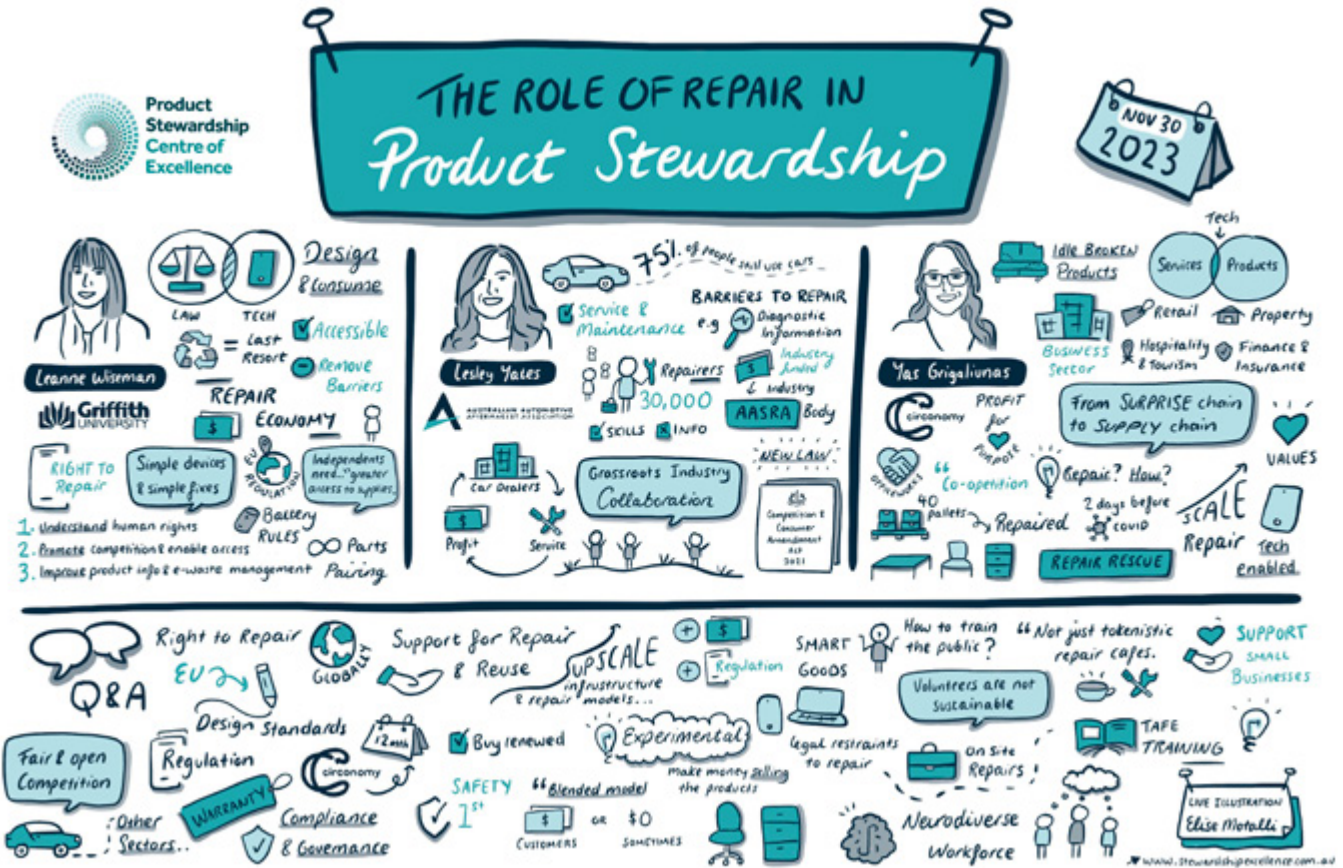
The study revealed varied levels of *engagement in product stewardship*. Overall, general population

engagement with product stewardship was high, with 87% of respondents having engaged in at least one product stewardship action by either recycling a used product or reusing items. 75% of the businesses surveyed have engaged with an existing external initiative. For the general population, engagement was most common when initiatives were either well promoted, offered a financial incentive, or had good accessibility, especially those linked to other consumer interactions such as retail. For business, many did not perceive a direct benefit, although reduced cost to business, brand image and ethical adherence were reported benefits for business.

The major opportunities to increase business engagement in product stewardship activity – and the associated positive benefits for society – lie in addressing the limited awareness, resourcing concerns, and cost considerations. Improved public reporting on the benefits, particularly those

1 See the Summary Report at www.stewardshipexcellence.com.au/wp-content/uploads/2023/06/Evaluating-product-stewardship-benefits-and-effectiveness---SUMMARY-REPORT-May-2023-20230628.pdf

2 See detail findings from business and general population surveys at www.stewardshipexcellence.com.au/wp-content/uploads/2023/06/Product-stewardship-benefits-assessment-Business-report.pdf and <https://stewardshipexcellence.com.au/wp-content/uploads/2023/06/Product-stewardship-benefits-assessment-General-population-report.pdf>



aligned with best practice operations, brand reputation, and consumer expectations are also recommended.

National Product Stewardship Investment Fund (NPSIF)³

This funding program has supported a diverse range of product classes and activities to accelerate the uptake of product stewardship. In total, 24 product stewardship initiatives were supported (see Table 1) spanning 16 product classes with a major focus on packaging (8 of the 24 projects). All projects supported collective industry action, and about a third of the projects align directly with either current or previous Minister’s Priority Lists.

The activities funded ranged from expanding scope of products covered by existing schemes (e.g.

MobileMuster and Tyre Stewardship Australia), growing service delivery of existing schemes (Compost Connect), undertaking research and development to open new end-markets (Simply Cups), and supporting implementation (B-Cycle). The program also supported the design and launch of three new initiatives in 2023, including the Bedding Stewardship Scheme, Seamless, and ResiLoop. These initiatives are now focused on securing further business support to establish and implement product stewardship action.







Eleven initiatives were supported to either pilot trials for collection and recycling (e.g. the National Plastics Recycling Scheme, a Circular Economy for Silage Wrap, Non-Packaging Agricultural Plastics, Plant Pots – PP5 Recycling, SeatCare, Cosmetic Packaging, Absorbent Hygiene Products, Sporting Goods and Sporting Footwear); assess the feasibility of

schemes (e.g. End of Life Vehicles, TexBack); or design schemes (e.g. Fit for Office, PODcycle, Furniture360). Only one project was discontinued. Ongoing commitment from producers and brands and support from government to address regulatory barriers is imperative to establish and operationalise these emerging schemes.

The majority of the NPSIF projects focus on the end-of-life (EOL) product lifecycle phase. Seamless, the national clothing textiles product stewardship scheme, is an exception with a focus across the whole product lifecycle, as is Furniture360, which is focused on designing out waste in commercial furniture. This highlights the need to encourage and support product stewardship action that will also drive waste avoidance, product durability, repair, and reuse in line with circular economy principles and the top rungs of the waste hierarchy.

3 www.dceew.gov.au/environment/protection/waste/product-stewardship/national-product-stewardship-investment-fund

Table 1. Product stewardship activity in Australia

Project Title / Initiative Name (Recipient – Grant amount)	Product type(s)	Project Description ⁴	Comments (Sourced from publicly available information)	More Information (Scan or click)
The Compost Network – Compost Connect <i>BioPak Pty Ltd</i> \$398,000	Compostable packaging, food waste	This project will enhance and expand the Compost Network, an organic recycling initiative and online platform providing businesses with access to a product stewardship scheme for organic waste and compostable packaging. Prior or current Minister’s Priority Listing: No Status at November 2023: Operational	This established initiative expanded its compost collection services for businesses (261 businesses as of May 2022); The initiative also expanded its scope by providing information on residential composting by local government area.	
Developing a National Cosmetics Circular Economy <i>Close the Loop Ltd</i> \$999,019	Cosmetics packaging	This project will develop a cosmetic waste stewardship scheme, including a centralised network to collect, process and recirculate used cosmetic packaging. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	An 8-week trial with 12 drop-off points for cosmetics packaging of any brand at M.A.C stores country-wide was conducted; The outcomes of the trial are yet to be released. The project findings were passed on to Accord, the national industry association representing manufacturers and suppliers of hygiene, personal care and specialty products, their raw material suppliers and service providers to consider next steps.	
National plastics recycling scheme <i>Australian Food & Grocery Council Ltd</i> \$985,866	Consumer soft plastic packaging	This project will bring the food and grocery supply chain together to deliver a national scheme to enhance the collection and processing of plastic packaging and increase the use of recycled content. The scheme aims to increase the recovery of plastics by an estimated 189,700 tonnes per year. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	The initiative is focused on growing membership (over 31 foundation supporters) beyond the food and grocery industry; Grant funding supported a kerbside collection trial involving six local government areas, and further trials to inform scheme design are planned; Currently additional recycling feasibility studies are underway.	
PODcycle – National coffee capsule product stewardship recycling scheme <i>Planet Ark Environmental Foundation</i> \$940,000	Coffee pods	This project will establish a national product stewardship scheme to collect and recycle all brands and types of coffee capsules (pods). Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	PODcycle is set to launch in 2024; The aim of the scheme is to facilitate the recycling of all brands of aluminium coffee pods, expanding on the Nespresso coffee pod recycling initiative; The scheme is running trials which were set to commence in October 2023.	
Polypropylene Plant Packaging Recycling Program <i>Australian Packaging Covenant Organisation Ltd – supported by Greenlife Industry Australia</i> \$549,000	Plant pots	This project will design and implement a national, industry-led, plant packaging product stewardship scheme. Prior or current Minister’s Priority Listing: No Status at November 2023: Operational	A pilot program (collecting 34,110 plant pots) tested scheme design; Garden City Plastics, a major plant pot manufacturer in collaboration with Norwood Industries (manufacturer of plant labels and tags), recyclers Polymer Processors and Nursery & Garden Industry Victoria have established and implemented the PP5 plastic recycling program ⁵ with collection points in many major cities in Australia.	
Simply Cups expansion and enhancement project <i>Closed Loop Environmental Solutions Pty Ltd</i> \$697,200	Coffee cups	This project expands the Simply Cups product stewardship scheme to all states and territories; while undertaking research to ensure products manufactured from the recycled cups meet industry specifications. Prior or current Minister’s Priority Listing: No Status at November 2023: Operational	The established initiative increased support for R&D into using recycled coffee cups in high-value products with three new partnerships; In 2023, Simply Cups was approved as an Alternative Destination under the ARL.	

4 <https://www.dccew.gov.au/environment/protection/waste/product-stewardship/national-product-stewardship-investment-fund>

5 <https://www.pp5.com.au/>

Table 1. Product stewardship activity in Australia cont.





Project Title / Initiative Name (Recipient – Grant amount)	Product type(s)	Project Description ⁴	Comments (Sourced from publicly available information)	More Information (Scan or click)
A comprehensive product stewardship framework for plastic oil containers <i>Australian Packaging Covenant Organisation Limited</i> \$632,000	Oil containers	This project will develop a business case, then design and implement a product stewardship scheme for used plastic oil containers. Prior or current Minister's Priority Listing: Yes Status at November 2023: Planning	A published report ⁶ details findings from a material flow analysis and stakeholder engagement and discusses a regulated scheme linked to the existing mandatory product stewardship scheme for oil; Consultation with the Commonwealth government around feasibility is ongoing.	
A circular economy for silage wrap <i>Dairy Australia Limited</i> \$965,400	Silage wrap	This project will assess the requirements for a successful and resilient product stewardship scheme and run regional pilots before moving to national implementation.. Prior or current Minister's Priority Listing: No Status at November 2023: Planning	A 1-year collection trial (90 farmers located in Victoria collected 64 tonnes) was used to inform scheme design, governance and funding. Project learnings will inform discussions with potential commercial service providers to implement the scheme nationally.	
Bedding Stewardship Scheme <i>Australian Bedding Stewardship Council</i> \$937,700	Bedding, mattresses	This project will design and implement a product stewardship scheme for used mattresses and used bedding. Prior or current Minister's Priority Listing: Yes Status at November 2023: Operational	The initiative was launched in 2023. Further industry support is being sought to ensure reliable scheme funding and enable a broader scope beyond R&D.	
Circular Threads <i>Australasian Circular Textile Association Ltd</i> \$360,510	Clothing textiles	Prior or current Minister's Priority Listing: Yes Status at November 2023: Discontinued	The project was not completed.	
Clothing Textiles Stewardship Scheme <i>Australian Fashion Council</i> \$1,000,000	Clothing textiles	The project will design and operationalise an industry-led stewardship scheme for clothing textiles. Prior or current Minister's Priority Listing: Yes Status at November 2023: Planning	The Seamless Clothing Stewardship Scheme was launched in 2023 and currently has 8 industry foundation members (with the aim to have 60% of the industry on-board by 2027); A roadmap was published detailing scheme design that reflects a whole of lifecycle approach and implementation plan; A product stewardship organisation is currently being established to implement the scheme which is expected to be operational by mid-2024.	
Establishing a National Product Stewardship Scheme for Batteries – B-Cycle <i>Battery Stewardship Council</i> \$1,000,000	Batteries	This project will establish and implement an effective and efficient National Product Stewardship Scheme for batteries in Australia. Prior or current Minister's Priority Listing: Yes Status at November 2023: Operational	B-Cycle is an established scheme with ACCC authorisation; Funding supported the national launch in 2022; Consultation is ongoing around potential expansion to more battery types, including EV, storage, and embedded batteries.	
Business Case to expand MobileMuster <i>Australian Mobile Telecommunications Association Limited</i> \$373,200	Mobile phones	This project will develop a business case to expand the scope of MobileMuster's e-waste collection to include electronic products that are currently not covered by other product stewardship programs. Prior or current Minister's Priority Listing: Yes Status at November 2023: Operational	MobileMuster expanded the scheme to include modems, smart home technology, landline phones, digital boxes, and tablets in 2022. (This followed the successful 3-month pilot that collected > 5,000kg.)	

6 <https://anzpacplasticspact.org.au/wp-content/uploads/2023/03/ANZPAC-Oil-Containers-Project-Summary.pdf>

Table 1. Product stewardship activity in Australia cont.

Project Title / Initiative Name (Recipient – Grant amount)	Product type(s)	Project Description ⁴	Comments (Sourced from publicly available information)	More Information (Scan or click)
SeatCare <i>Equilibrium</i>	Child car seats	This project will finalise and implement a collective scheme design for child car safety seats. Prior or current Minister’s Priority Listing: Yes Status at November 2023: Planning	A 2-month collection and recycling trial was conducted with Recycle Mate (1,500 car seats across several Australian states) and there are plans to roll out 25 collection sites, expanding to 60 permanent sites and pop-up events within two years; The 2023-24 Minister’s Priority List calls out companies not currently engaged in the scheme to commence formal participation by Nov 2024	
Improving tyre recovery within the mining sector <i>Tyre Stewardship Australia \$987,717</i>	Off-the-road tyres	This project will expand Tyre Stewardship Australia to recycle tyres used in mining, agriculture and aviation, rubber tracks and conveyor belts. Prior or current Minister’s Priority Listing: Yes Status at November 2023: Operational	TSA investigated the business case to <i>expand the scope of scheme</i> to include off-the-road (OTR) tyres; Stakeholder engagement is ongoing to confirm approach to expand existing scheme scope.	
EOL vehicle waste management solutions <i>Federal Chamber of Automotive Industries \$1,000,000</i>	Automotive vehicles	This project will design a stewardship scheme, supported by a proof of concept, to address end-of-life vehicle waste in Australia. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	Information on progress is not publicly available as of November 2023.	
Designing out waste for commercial furniture and furnishings – Furniture360 <i>The Australian Furniture Association \$1,000,000</i>	Office furniture	This project will develop a design- focused product stewardship scheme for commercial furniture and furnishings. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	The AFA, in consultation with the furniture industry, will create a design-focused Stewardship System, Stewardship Council, and training and accreditation programs with scheme implementation from 2023-26; Information on current progress is not available.	
National Commercial Furniture Product Stewardship Scheme – Fit for Office <i>Edge Environment \$930,000</i>	Office furniture	This project will develop a business case to minimise commercial furniture in landfill and assist in the recycling process. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	This initiative is led by an expert reference group (ERG) comprised of seven founding member organisations; A website was built outlining objectives and approach, as well as three e-Learning modules (Introduction to Waste Management, Best Practice Operational Waste Management, and Back-of-house Waste Management and Audits); A registry for tracking commercial office furniture is in development. Information on current progress is not available.	
Sports equipment product stewardship, Game on recycling <i>ANZRP \$669,125</i>	Sports equipment	This project will design and implement a National Sports Equipment Product Stewardship scheme to recycle sporting equipment. Prior or current Minister’s Priority Listing: No Status at November 2023: Operational	The initiative was expanded with support from Wilson Sporting Co with ball collection points in 170 Rebel Sport stores. Discussions are underway to merge the initiatives with TreadLightly being implemented by ASGA.	
TreadLightly <i>Australian Sporting Goods Association \$998,531</i>	Footwear	This project will establish a new industry-led program that provides the Australian public with a free sports footwear collection and recycling service. Prior or current Minister’s Priority Listing: No Status at November 2023: Operational	Administered by the Australian Sporting Goods Association (ASGA) the recycling initiative has 34 participants, including prominent sports brands; To date there are 937 collection points with 480 tonnes recycled; Recovered materials have been used to manufacture recycled flooring for commercial and domestic use with production facilities located in Victoria and Queensland.	

Table 1. Product stewardship activity in Australia cont.

Project Title / Initiative Name (Recipient – Grant amount)	Product type(s)	Project Description ⁴	Comments (Sourced from publicly available information)	More Information (Scan or click)
National Non-packaging Agriculture Stewardship Scheme <i>RM Consulting Group Pty Ltd</i> \$893,866	Agricultural plastics	This project will develop a business case and complete a scheme design, then run two 6-month pilots in South-East Queensland and Victoria for non-packaging agricultural plastics. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	A series of published project updates detail findings from pilot programs (including collection of 231 tonnes of irrigation tubes, grain bags and grape covers) and a proposed scheme design; The implementation plan recommends commencement from FY 2024-25 following formation of an Industry Working Group and ongoing consultation.	
Project Divert <i>Asaleo Personal Care Pty Ltd (Trading as Essity)</i> \$561,031	Absorbent hygiene products	This project will establish a new industry-led product stewardship scheme for commercial facilities to recycle used absorbent hygiene products; a problematic waste that typically ends up in landfill. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	A pilot program (anticipated to collect 39 tonnes of incontinence products from 12 waste collection sites in Victoria) was used to establish a processing site to test the viability of pyrolysis technology; Consultation around the development of a national product stewardship scheme, including making the business case, is ongoing.	
ResiLoop – Stewardship for resilient flooring <i>Australian Resilient Flooring Association</i> \$1,000,000	Flooring	This project will design, develop and trial a product stewardship scheme for resilient flooring products. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	The Australian Resilient Flooring Association (ARFA) launched <i>ResiLoop</i> in 2023 with support from 50 companies and peak bodies that have signed a collective action statement committing to the goal of establishing a scheme; Three comprehensive reports ⁷ detail scheme design and a roadmap to implementation by 2024, including ongoing recruitment of members, conducting collection and recycling pilots, establishing the product stewardship organisation, marketing, and developing performance metrics.	
TexBack – PVC-Polyester Textiles Stewardship Scheme <i>Vinyl Council of Australia</i> \$349,850	PVC polyester textiles	This project will develop the business case and design a national product stewardship scheme for PVC coated polyester textiles. Prior or current Minister’s Priority Listing: No Status at November 2023: Planning	A material flow assessment and recycling technology pilot (PVC Separation™) will inform next steps focused on developing full-scale recycling plants with plans for nationwide processing capacity.	

7 <https://www.arfa.org.au/our-aim.html>

Minister's Priority List

The three product classes that were new to the Minister's Priority List in 2022-23: mattresses, plastics in healthcare products, end-of-life tyres (Figure 1), have remained on the 2023-24 list. For these product classes, the Minister's Priority List specifies individual product stewardship actions to manage and reduce the adverse impacts on the environment and human health.

Four product classes have been removed from the 2023-24 Minister's Priority list as they are now subject to federal government regulatory processes (discussed below) with legislation proposed to be in place by mid-2024 and operational by mid-2025:

- photovoltaic systems (modules, inverters, ancillary equipment)
- electrical and electronic products
- problematic and unnecessary single use plastics
- oil containers

Update on Listed Products

For **mattresses**, the stated action was to increase industry participation in the existing voluntary scheme run by the Australian Bedding Stewardship Council (ABSC) and to expand the scope to include additional products such as bases, pillows, and mattress toppers. The listing also emphasised the need for action across the whole supply chain including design for recycling, efforts to address and treat chemicals of concern, efforts to increase access to recycling services and material recovery. The 2023-24 listing explicitly calls out companies that are not currently members of the scheme to 'commence formal participation by November 2024'.

The **Recycle My Mattress Product Stewardship Scheme** was formally launched in March 2023 and is administered by the ABSC. NPSIF funding helped the ABSC focus on increasing industry participation through targeted marketing, R&D to support scheme design changes (including possible product scope expansion) and research supporting the development of new end markets for recovered mattress components (including mattress shreds, pocket coils, memory foam and textiles).



The scheme was granted conditional authorisation by the ACCC to impose a levy (\$10 per mattress) to be paid by participating mattress manufacturers and passed on through the supply chain to consumers as a visible fee on the sale of new mattresses. This allows the scheme to work with approved mattress recyclers. While the scheme does not directly report on mattress collection volumes, some data is published by approved mattress recyclers. For example, Soft Landing Mattress Recycling reported on their website that 507,000 mattresses were recycled in FY 2021-22. Soft Landing Mattress Recycling also reported employment opportunities for 260 people in FY 2021-22 with 79% of their employees facing barriers to employment.

Increasing industry participation remains the major challenge for the scheme. Low levels of participation undermine the financial viability and ultimately limits the positive environmental and social impacts. Alongside targeted marketing to encourage participation and increase community and industry awareness of the environmental problems that EOL mattresses pose, the ABSC is focused on refining the financial model and developing new end-markets for recovered mattress components.

For **end-of-life tyres**, where there is also an existing initiative managed by Tyre Stewardship Australia (TSA), the list identified the need to strengthen the existing voluntary scheme demonstrated by an increase in the onshore utilisation of recovered materials from EOL tyres. Increasing the contribution from importers and auto

Figure 1. Minister's Priority Product Listings 2013-2024

2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Waste architectural and decorative paint										
End-of-life handheld batteries	End-of-life handheld batteries (less than 5kg in weight)	All batteries								
Packaging (and subsets of packaging such as consumer packaging and beverage packaging)										
End-of-life air conditioners with small gas charges										
End-of-life refrigerators with small gas charges										
			Plastic microbeads and products containing them							
			Photovoltaic systems							
			Electrical and electronic products							
			Oil containers							
									Child car seats	
									Clothing textiles	
									Problematic and unnecessary single use plastics	
									Mattresses	
									Plastics in healthcare products	
									End-of-life tyres	

manufacturers and greater participation of tyre retailers was also called out. As is the case for mattresses, the 2023-24 listing explicitly states that companies not currently members of the scheme are to ‘commence formal participation by November 2024’.

TSA has worked to address these challenges by (1) enhancing their program for accrediting collectors and recyclers, (2) providing ongoing financial support for R&D supporting endmarket development, (3) promoting their procurement tool for verifying that crumb is processed in Australia from Australian-generated EOL tyres, and (4) by investing in targeted marketing to increase awareness and participation.

The scheme reports on several performance indicators to evaluate the effectiveness of these activities discussed below. (See the Product Stewardship Gateway for a broader set of performance indicators).

In terms of increasing the contribution from importers and auto manufacturers, and greater participation of tyre retailers, the goal is to have an 80% share of tyre importers, a 75% share of vehicle manufacturers and importers by new car sales, a 75% share of tyre retailers by passenger tyre sales, and an 85% share of tyre recyclers by end-of-life tyres by 2023. As of FY2022-23, the initiative has achieved a 57% share of tyre importers, a 7% share of vehicle manufacturers/importers by new car sales, a 47% share of tyre retailers by passenger tyre sales, and an 86% share of tyre recyclers by end-of-life tyres.



Plastics in healthcare products had four actions: to identify data for collection, to develop a nationwide scheme, to work to find solutions to remove toxins and contaminants from healthcare plastics, and assess future product scope. We are not aware of coordinated national efforts which highlights the need for clarification around the product scope. The 2023-24 listing has narrowed the scope of action to **non-contaminated plastic waste from hospitals** and calls for manufacturers, importers, distributors and retailers to demonstrate measurable product stewardship action including design improvements to products and packaging by November 2024.

Reformed scheme for packaging

All Australian environment ministers agreed to reform the regulation of packaging by 2025.

The stated objectives for a reformed scheme are to:

- Ensure all packaging is designed for circularity,
- Increase the amount of reusable packaging,
- Ensure packaging is recovered,
- Increase the amount of recycled content in packaging.

Specifically, ministers agreed to:^{8,9}

- Mandate obligations for packaging design based on international best practice, including minimum recycled content requirements.
- Make industry responsible for the packaging they place on the market;
- Prohibit harmful chemicals and other contaminants in packaging (including a timeline to remove contaminants from compostable food packaging).
- Take a whole-of-supply-chain approach so packaging is designed to minimise waste and be recovered, reused, recycled and reprocessed.

The most recent Environment Ministers' Meeting Agreed Communique (Nov. 2023) echoed these commitments and noted that the Federal government will set up a new regulator for packaging standards.¹⁰ Government consultation on the mandatory obligations, design standards and governance model are ongoing and scheduled to conclude in February 2024.

8 www.dcceew.gov.au/sites/default/files/documents/emm-communique-09-june-2023.pdf

9 www.dcceew.gov.au/sites/default/files/documents/emm-communique-10-nov-2023.pdf

10 www.dcceew.gov.au/sites/default/files/documents/emm-communique-10-nov-2023.pdf

Consistent with findings from the Benefits and Effectiveness study,¹¹ the following characteristics will ensure an effective regulated packaging scheme:

1. An essential characteristic for effective product stewardship is that all businesses placing packaging on all markets in Australia take full responsibility for the cost of: ensuring convenient and accessible collection, sorting and recovery systems, the clean-up of litter, the provision of information and labels, and, awareness raising to encourage high-levels of industry participation and investment;
2. The scheme should also have clearly defined objectives with measurable performance indicators that are sector specific, including for waste avoidance, elimination of hazardous materials, reusable packaging, recycled content, collection rate, recycling rate, composting rate, user awareness and accessibility;
3. The roles and responsibilities of all actors should be clearly defined;
4. The scheme should incorporate financial incentives for innovation in packaging design, development of new end-markets for recovered materials and behaviour change to increase participation; and
5. Finally, the scheme should invest in targeted marketing to raise consumer awareness and drive participation.

These characteristics are consistent with best international practice, for example the EU policy on packaging and packaging waste.¹²

11 <https://stewardshipexcellence.com.au/resources/#benefits>

12 https://environment.ec.europa.eu/publications/proposal-packaging-and-packaging-waste_en

Regulations for e-products including PV systems

The Australian Government has also committed to develop a regulatory scheme for small electrical products and solar photovoltaics (PV). For these product classes, the initial phase of public consultation concluded in July this year, however stakeholder engagement on specific matters is continuing as overall parameters and priorities for the scheme are considered and assessed.

These product classes were first listed on the Minister's Priority List in in 2016-17 yet there has been limited industry action to address the environmental and human health impacts of these products, particularly at end of life. Close to one million tonnes of e-products is estimated to enter the market annually and about one third of this is solar PV systems. Modelling commissioned by the Australian Government estimated that over half a million tonnes of e-waste is generated each year with a collection rate of only 50%. Of the materials collected, 80% goes to low efficiency recycling (shredding for metal recovery) while solar PV is mostly going to landfill.¹³

The Minister's Priority List 2022-23 called for broad action on electronic and electrical products, stating that: *"Manufacturers, importers, distributors and retailers must demonstrate measurable product design improvements to increase the durability, reparability, re-usability and/or recyclability"*.

However, the proposed scheme targets and obligations¹⁴ lack specificity with regards to designing out waste and pollution, keeping products in the economy as well as preventing and avoiding waste generation. Objectives with measurable actions are recommended with specific focus on waste avoidance, durability, repair, and reuse.

Consistent with findings from the Benefits and Effectiveness study,¹⁵ significant effort and investment is also needed in marketing and educating consumers on what to do with their products. The Benefits and Effectiveness study showed that awareness and participation was generally low-to-moderate for this product class. In the case of the NTCRS, of the Australian consumers surveyed, only 8% have heard of and participated in the scheme with a further 16% having heard of but not participated. For MobileMuster, where there



has been investment in marketing, 19% have heard of and participated in the scheme. A marketing and education effort is needed to provide information to consumers on how they can buy better and choose more durable and repairable e-products. Consistent with the Productivity Commission's Right to Repair report, a Product Labelling Scheme pilot program for consumers is recommended with information on where consumers can repair or recycle if reuse is not possible.

For PV systems, the Minister's Priority List 2022-23 referred to the limited progress towards agreeing on a nationwide scheme design and, recently, in the National Waste Policy Action Plan Annexure (2022) a commitment was made to *"identify a preferred product stewardship scheme for photovoltaic systems by 2023 and implementation by 2025."*

¹³ www.dceew.gov.au/sites/default/files/env/pages/d347d42b-d755-481b-bc38-71683b5d1958/files/e-stewardship-evidence-report-2021.pdf

¹⁴ <https://consult.dceew.gov.au/regulation-small-electrical-products-solar-pv>

¹⁵ <https://stewardshipexcellence.com.au/resources/#benefits>

Urgent and proportionate regulatory intervention is essential to ensure sector-wide participation in a product stewardship solution for all components of PV systems. The proposed approach described in the *Wired for Change* consultation document does not reflect best international policy reflected in the Ecodesign Directive.¹⁶ This European policy instrument is intended to manage and reduce environmental impact across whole product lifecycles.

While extensive consultation and policy research is ongoing, policy recommendations for Ecodesign requirements (for modules) include: requirements on the manufacturer to declare lifetime energy yields, the introduction of performance requirements on quality and durability with certification according to standardised tests, information requirements whereby manufacturers must report on degradation rates, repairability including accessibility of replacement components, dismantlability and material disclosures (contents in grams for a specified list materials, polymers and additives). A further information requirement on lifecycle data including primary energy and embodied CO₂ emissions is also recommended.

Given Australia's pioneering historic role in the development of PV systems, there is an opportunity for Australia to also be a leader in championing a circular economy for solar PV by implementing policies that are clearly aligned with the EU Ecodesign Directive and the more recent iteration of the European Commission's proposed Ecodesign for Sustainable Products Regulation. This more explicitly reflects a whole lifecycle focus that is needed to stimulate circular material flows for all components of solar PV systems.

This represents an important opportunity to develop and implement regulations that underpin product stewardship action that aligns with leading international approaches for these product classes.

Conclusions

Product stewardship activity is building momentum in Australia with demonstrated positive impacts on environmental and human health. This activity reflects the growing diversity of initiatives, schemes and investment by industry and governments. It also acknowledges that product stewardship provides an obvious pathway for real-world implementation of ambitious approaches to delivering positive impacts across supply chains and through the product lifecycle.

It is encouraging to see product stewardship in the spotlight at the recent Environment Ministers Meeting (Nov 2023), emphasising that product stewardship is an important pathway for business to operationalise circular economy principles and support the transition of the Australian economy.¹⁷

There remains much to do to expand the focus to include more product categories, such as vehicles, treated timber, commercial furniture, and products used in building and construction. However, this focus must reach back up the supply chain and rapidly ascend the resource and waste management hierarchy to prevent and minimise waste. An action-oriented emphasis on design, repairability and durability is critical to transform supply chains by eliminating unsafe chemicals and hazardous materials, revitalising natural and social systems, and achieving carbon mitigation targets.

A comprehensive product stewardship approach that is explicitly lifecycle-oriented has the power to go beyond *less harm*, and confidently look towards achieving restorative and regenerative outcomes. Above all, we need to remember that product stewardship is about producers taking primary *responsibility for environmental protection* and minimising harm to humans across the entire lifecycle in a way that still delivers responsible prosperity.

¹⁶ <https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/462/home>

¹⁷ <https://www.dcceew.gov.au/sites/default/files/documents/emm-communique-10-nov-2023.pdf>



Brendan Folitarik, Country manager of HMD Nokia talking about the importance of design for durability and reparability at the 2023 Product Stewardship Excellence Awards.



Product Stewardship Excellence Awards

The breadth and quality of entrants combined with the depth of innovation in this year's Product Stewardship Excellence Awards demonstrate the substantial progress being made to mainstream product stewardship in Australia and deliver the associated social, environmental and economic benefits.

The Product Stewardship Excellence Awards celebrate the outstanding achievements and innovative initiatives that are advancing the principles of product stewardship in Australia.

Product stewardship ensures products and materials are managed in a way that reduces their environmental and human health impacts throughout their lifecycle and across the supply chain.

Effective product stewardship is also a real-world operational pathway for implementing circular economy principles.



By showcasing best practice in product stewardship, we can demonstrate its effectiveness, further increasing scheme participation and action by individual businesses, brands, retailers, associations, and product stewardship organisations. It provides an opportunity for businesses to do more, strive for more, and ultimately achieve more.

Six categories were judged by a panel of national and international experts from across industry, government, research and stewardship organisations, chaired by Product Stewardship Centre of Excellence Director Professor Damien Giurco.



ANZRP team

The 2023 Winners are:

Best Stewardship Outcomes – Collective Scheme

Winner: Australia New Zealand Recycling Platform

Australia and New Zealand Recycling Platform (ANZRP) demonstrated exceptional commitment to product stewardship. They highlight how industry can work together to achieve sustainable outcomes through reuse, repair, and recycling. ANZRP's collection of 21,460 tonnes of e-waste in 2021/22 and the reuse of 91% of recovered materials in new products showcased their unwavering commitment to sustainable practices.

Highly Commended: Battery Stewardship Council

Best Stewardship Outcomes – Individual Business or Brand (Large companies 200 + employees)

Winner: Schütz Australia

Schütz Australia demonstrated an innovative approach and commitment to circular practices with their reusable packaging systems through responsible product management, minimising waste, and maximizing the reuse of resources. Their Ticket Collection program, first initiated around 30 years ago, has grown rapidly recently. Schütz successfully recovered around 16,000 tonnes of plastic over the last 4 years. They collect used containers, repair, and reuse them, and efficiently manage any that can't be reused through recycling.

Highly Commended: Telstra

Best Stewardship Outcomes – Individual Business or Brand (SMEs < 199 employees)

Winner: Cultivated

Cultivated advocates for longevity and reparability in the furniture circular economy. Their commitment to quality materials and thoughtful design ensures products endure, contributing to a more sustainable and circular approach in the industry.

Highly Commended: Signature Flooring

Excellence in Design for Product Stewardship

Winner: A.H. Beard

A.H. Beard demonstrated exemplary efforts with their Origins mattress range. Addressing the environmental crisis of mattress accumulation in landfill, the company's innovative design approach tackles waste, pollution, and emissions, paving the way for a more responsible and sustainable mattress industry.

Highly Commended: Dsmile

Highly Commended: Multigate Medical Products

Excellence in Digitalisation for Product Stewardship

No Award

Excellence in Emissions Reduction through Product Stewardship

No Award

PRODUCT STEWARDSHIP CHAMPION OF THE YEAR

The Product Stewardship Champion of the Year award recognises an individual or team who has had a singular impact in driving stewardship forward in Australia. It is bestowed by the directors of the Product Stewardship Centre of Excellence.



The 2023 Product Stewardship Champion is:

Sophi MacMillan – Project Director, ResiLoop – Australian Resilient Flooring Association,

Sophi is an accomplished and respected product stewardship professional. Her contribution over two decades has been impactful, and always focused on uniting industry stakeholders towards action and solutions. From her work with the Vinyl Council and the Asia Pacific Vinyl Network to her current role leading the ResiLoop Scheme for the Australian Resilient Flooring Association, Sophi is a key player who understands the value and role of product stewardship in a sustainable future.

Award Sponsors



The Product Stewardship Centre of Excellence thanks Cycle Solutions, HMD Global, Kingfisher and Return-It for their generous sponsorship of the 2023 Product Stewardship Excellence Awards.

Centre Activities

The Centre conducted a wealth of activities over 2023. These have occurred across the following categories and are noted in the timeline below:



Excellence and Awards



Networking



Mentoring



Training and Executive Development

2023 ▶



Case Study

Good360 Australia
Re-homing surplus new and refurbished goods



Engagement

Presented at **Consumer Healthcare Products Australia** blister packs workshop



Case Studies

Repeat Audio
Circular business model, leasing headphones

GlamCorner
Fashion rental platform

Phillips Ecoloop Program
Light as a Service



Engagement

Presented at **Australian Circular Economy Forum**

February **March** **April** **May** **June**

Engagement

Product Stewardship Business Forum Meeting



Engagement

Presented at **Boomerang Labs** seminar
Sustainability jury for the **Australian Interior Design Awards**



Engagement

Presented at **South Western Sydney Local Health District** on **Circularity in Hospitals**



Engagement

Presented at **Lighting Council Environmental Forum**
Presented at **Lifting Equipment Conference**
Presented at **NSW EPA Divisional Day**



Webinar

Joint webinar with WMRR: 'Activating Design for a Circular Economy'





Resources



Research and Advisory Services

Product Stewardship Centre of Excellence Limited established



Webinars

- 'Produce Stewardship Effectiveness'
- 'Business and Consumer Engagement in Product Stewardship'



Webinars

- 'Performance Metrics for Product Stewardship'
- 'Leading the Transition to a Circular Economy and Creating Social Good' ARA webinar



Engagement

- Presented at DCCEE C-SPARC Webinar
- Presented at the WA Waste Conference
- Presented to the Consumer Electronics Suppliers Association



Webinar

- 'Avoiding Greenwashing for Product Stewardship Initiatives'



Awards

- Product Stewardship Excellence Awards



Engagement

- Product Stewardship Business Forum Meeting

July

August

September

October

November

Podcast

- 'Design for Sustainability' Hosted by Play&Co



Engagement

- Sustainability jury for the Good Design Awards



Practice Notes

- 'A Guide To SMEs – Winning Commonwealth Government Business Through Product Stewardship'

- 'The Value and Relevance of Product Stewardship for SMEs'

- 'Governance of Product Stewardship Scheme Guidelines and Templates'



Engagement

- Presented to the Outdoor Power Equipment Association
- Presented at the North Rivers Living Lab Circularity seminar
- Sustainability jury for the Victorian Premier's Design Awards



Podcast

- 'Business Sustainability by Smart Product Design' Hosted by the Australian Industry Group



Engagement

- Presented at Telstra Mastery Workshop for Senior Managers



Podcast

- 'Role and Value of Product Stewardship' Hosted by Currie Communications



Engagement

- Presented to Australia and New Zealand Recycling Platform Members Forum

- Presented at CSIRO Circular Economy for Missions Workshop



Webinar

- 'The Role of Repair in Product Stewardship'



Team

Product Stewardship Centre of Excellence Limited Board (established June 2023)

John Gertsakis

Rose Read

Dr Nick Florin

Tim Powell

Louise McGrath

Centre Team

Spyro Kalos

John Gertsakis

Rose Read

Glenn Brown

UTS Institute for Sustainable Futures

Professor Damien Giurco

Dr Nick Florin

Dr Taylor Brydges

Dr Rachael Wakefield-Rann

Dr Simran Talwar

Australian Industry Group

Louise McGrath

Molly Knox

Andrew Campbell (until April 2023)

Dentsu Creative

Tim Powell

Reagan Ruppell (until April 2023)

Specialist Advisers

Advisers were drawn from the following organisations on an as-needs basis:

Clean Up Australia

Good Design Australia

King & Wood Mallesons

Monash University Design / Blue Sky Creative

RPS Group

WSP Digital

Resources available online at

www.stewardshipexcellence.com.au

Product Stewardship Gateway

Webinar presentations and recordings

White papers

Practice notes

Case studies

*Photography on following page courtesy of:
Australia and New Zealand Recycling Platform / TechCollect
A.H. Beard
Pexels / Liza Summer
Cultivated
Shutterstock*





www.stewardshipexcellence.com.au

 Product Stewardship Centre of Excellence



Product
Stewardship
Centre of
Excellence



UTS

AiGROUP

DC DENTSU CREATIVE
PUBLIC RELATIONS