

Strategies to maximise industry participation



WHITE PAPER

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SUMMARY

The purpose of this whitepaper is to identify strategies for addressing freeriders and consider applicability for the Australian context. Free-riders are businesses or organisations that may benefit from a product stewardship activity without contributing to its implementation or operation. Through introducing a critical element of unfairness into a product stewardship scheme, free-riders can be a major deterrent to participation and thereby threaten the effectiveness of existing and emerging product stewardship schemes in Australia.

Through an extensive literature review, we have identified ten practical strategies, which when used in tandem, can support product stewards in overcoming the challenges of free-riders:

- 1. Ensuring broad industry engagement
- 2. Promoting cost-efficiency through scheme design
- 3. Demonstrating the business case
- 4. Unlocking privileged access to new markets
- 5. Addressing orphan waste
- 6. Bestowing reputational rewards
- 7. Instilling confidence and accountability through third-party monitoring
- 8. The power of peer pressure
- 9. Embracing circular design
- 10. Celebrate the wins.

In describing these strategies, we highlight how different Australian product stewardship schemes have sought to overcome free-riders. More broadly, the Product Stewardship Centre of Excellence can support industries and schemes as they work to address free-riders. This includes one-on-one mentorship activities, as well our growing list of resources (webinars, case studies, policy briefings and more).



INTRODUCTION

The issue of non-participation or free-riders is a critical challenge facing product stewardship schemes in Australia¹. Free-riders are businesses or organisations that may benefit from a product stewardship activity without contributing to its implementation or operation². Free-riders are a particular challenge for product stewardship as a collective action as they can be a major deterrent to participating in a product stewardship scheme. This whitepaper will focus on strategies that schemes can implement to overcome free-riders and spur industry participation.

To contribute to the mission of the Product Stewardship Centre of Excellence to support product stewards in Australia, this whitepaper brings together key findings from studies of product stewardship, extended producer responsibility activities and voluntary environmental programs. Based on an extensive literature review of nearly 200 peer-reviewed academic articles on the topic, we have identified a range of strategies for addressing free-riders and have applied them to the Australian context.

We draw upon experiences from Australia and around the world — from Canada to Columbia, Portugal to South Korea and everywhere in between. We have learned from real-world challenges and solutions in a range of sectors including e-waste, tyres, packaging, construction and demolition waste and more.

It is important to acknowledge the wealth of domestic experience with industry-led product stewardship schemes and approaches for addressing free-riders. To that end, throughout this whitepaper, we flag strategies that Australian product stewardship initiatives have or could deploy. Ultimately, it is the goal that the findings in this whitepaper will help product stewards address scheme design challenges pertaining to free-riders and seek to maximise industry participation in voluntary schemes.

DEFINING FREE-RIDERS

As mentioned, free-riders are businesses or organisations that may benefit from a product stewardship activity without actually contributing to its implementation or operation. Free-riders introduce a critical element of unfairness into a product stewardship scheme and can threaten the legitimacy and credibility of an initiative by giving a competitive advantage to firms that do not participate compared to firms that act responsibly.

Through their non-participation, free-riders not only reap the benefits of the efforts of others but risk overburdening product stewardship schemes³. Free-riding also contributes to hesitancy in participating owing to perceived commercial disadvantage, which risks slowing the uptake of product stewardship^{4,5}.

¹ Product Stewardship Centre of Excellence (2021). <u>Addressing the Barriers: A needs assessment of product stewardship in Australia.</u>

² Product Stewardship Centre of Excellence (2021). <u>Addressing the Barriers: A needs assessment of product stewardship in Australia.</u>

³ Khetriwal, D. S., Kraeuchi, P., & Widmer, R. (2009). Producer responsibility for e-waste management: Key issues for consideration – Learning from the Swiss experience. *Journal of Environmental Management*, *90*(1), 153–165. https://doi.org/10.1016/j.jenvman.2007.08.019

⁴ Zadek, S. (2008). Global collaborative governance: There is no alternative. *Corporate Governance: The International Journal of Business in Society*, *8*(4), 374–388. https://doi.org/10.1108/14720700810899121

⁵ Salim, H. K., Stewart, R. A., Sahin, O., & Dudley, M. (2020). Systems approach to end-of-life management of residential photovoltaic panels and battery energy storage system in Australia. *Renewable and Sustainable Energy Reviews*, *134*, 110176. https://doi.org/10.1016/j.rser.2020.110176

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Free-riders potentially threaten the financial viability of a scheme if they utilise its infrastructure without contributing to its costs⁶.

Thus, the presence of free-riders not only threatens the effectiveness of existing product stewardship schemes but can also undermine the establishment of new and emerging voluntary product stewardship schemes, which is the Commonwealth government's preferred approach.

Whereas free-riders are commonly characterised as willfully "opportunistic?" businesses, lived experiences of this problem reveal that the on-the-ground reality is often more complex. Indeed, there are a number of factors that can result in a business free-riding, even if this was not necessarily their intention. Possible scenarios that can stymie scheme participation and lead to free-riding include:

- A genuine lack of awareness regarding scheme participation. A business with personnel and resources occupied by internal corporate social responsibility initiatives (such as safety provisions, standards, labelling etc.) may be unaware of scheme obligations, particularly in instances where schemes are guite new.
- A communication breakdown between scheme leadership and industry representatives
 resulting in poor corporate understanding of a scheme's roles and responsibilities. Sectors
 with limited networking opportunities and/or lacking a culture of industrial cooperation are
 particularly vulnerable to breakdowns in communication that can lead to limited awareness of
 product stewardship responsibilities.
- Compliance takes time. Once aware of scheme requirements, the process of complying with
 product stewardship scheme guidelines can be a lengthy one. This is a particular challenge
 for large organisations, as it takes time to bring senior management together and gain
 internal agreement on scheme commitments.
- Senior corporate leadership operating overseas may have limited understanding of unique dynamics of the Australian stewardship landscape (for example, a focus on industry-led, voluntary schemes vs regulated schemes). Language and cultural barriers can fuel reluctance and/or confusion around participation, particularly when there is a perception that regulation is required in order to act.
- The presence of other free-riders. If a business knows their competitors are also currently not
 in compliance with an existing scheme, it can become difficult to justify the financial costs of
 participation. In turn, the business does not participate out of fear of being disadvantaged,
 rather than rewarded, for participation. Thus, a vicious circle of free-riding begins!

In response to these complex challenges, addressing free-riders and encouraging scheme participation requires a multi-pronged approach.

PRODUCT STEWARDSHIP SCHEMES IN AUSTRALIA

The Recycling and Waste Reduction (RAWR) Act 20208 (which replaced the Product Stewardship Act

⁶ Salim, H. K., Stewart, R. A., Sahin, O., & Dudley, M. (2020). Systems approach to end-of-life management of residential photovoltaic panels and battery energy storage system in Australia. *Renewable and Sustainable Energy Reviews, 134*, 110176. https://doi.org/10.1016/j.rser.2020.110176

⁷ Nicolai, I., & Faucheux, S. (2015). Business models and the diffusion of eco-innovations in the eco-mobility sector. *Society and Business Review, 10*(3), 203–222. https://doi.org/10.1108/SBR-07-2015-0024

⁸ Federal Register of Legislation (2020). Recycling and Waste Reduction Act 2020.

2011) provides the legal framework for three different kinds of product stewardship schemes⁹:

- 1. Voluntary Product Stewardship: Voluntary product stewardship schemes are led by industry. They may apply for government accreditation that involves demonstrating that their activities contribute to Australia's waste reduction and recycling objectives. Accredited voluntary product stewardship schemes are authorised to use the Australian Government product stewardship logo that tells businesses and consumers that their activities reduce the potentially adverse impacts of their products across the lifecycle aligned with circular economy principles.
 - Example: MobileMuster¹⁰
- 2. Co-regulatory Product Stewardship: This approach involves a combination of industry action and supportive government regulation to achieve product stewardship outcomes. This may include requiring some businesses involved in a product supply chain from manufacturers, importers, distributors and users of products (called liable parties) to participate in a recycling program or take action to support broader sustainability outcomes as specified in the regulations.
 - Example: National Television and Computer Recycling Scheme¹¹, Australian Packaging Covenant¹²
- 3. Mandatory Product Stewardship: This involves enabling regulations to be made that would require some businesses involved in a product supply chain to take, or not to take, specified action in relation to products.
 - Example: Product Stewardship for Oil Scheme (Product Stewardship (Oil) Act 2000)

A crucial aspect of the RAWR Act is the identification by the Minister of priority products and materials. The Minister's Priority List identifies priority products in need of a product stewardship approach. Inclusion on the list is an indication to industry that the Commonwealth government will consider regulatory measures if industry action is considered inadequate.

The Minister's Priority List consists of reasons for inclusion, recommended actions, and a specific timeline for action¹³. The Minister's priority product list for 2021–22 includes photovoltaic systems (first listed 2016–2017), electrical and electronic products (2016–2017), plastic oil containers, (2016–2017) and child car seats (2020), as well as two new product classes added this year, clothing textiles and problematic and unnecessary single use plastics.

Batteries and plastic microbeads and products containing them were removed from the 2021-22 list.

OVERCOMING FREE-RIDERS:Options for maximising industry participation

⁹ See also: Lane, R., & Watson, M. (2012). Stewardship of things: The radical potential of product stewardship for re-framing responsibilities and relationships to products and materials. *Geoforum*, *43*(6), 1254–1265. https://doi.org/10.1016/j.geoforum.2012.03.012

¹⁰ Mobile Muster (2021). About us.

¹¹ Department of Agriculture, Water and the Environment (2021). <u>National Television and Computer</u> Recycling Scheme.

¹² Australian Packaging Covenant Organisation (2021). About APCO.

¹³For example, in the case of child car safety seats, Action 1 requires the establishment and implementation of an operational voluntary stewardship scheme encompassing child car safety seat manufactures, importers, distributors and retailers by June 2023. Action 1 specifies that the scheme should ensure arrangements are in place to safely and efficiently manage the disposal, collection and recycling of unwanted and potentially unsafe child car safety seats across the country. Building on this, Action 2 then requires participating manufactures, importers, distributors and retailers to demonstrate measurable product design improvements to increase durability, reparability, reusability and/or recyclability by June 2025. For more information, see: Minister's Priority List 2021-22.

This is because in the case of batteries, the industry-led Battery Stewardship Scheme will be launched in early 2022. Microbeads have also been phased out of 99.3% of rinse-off cosmetic, personal care and cleaning products, warranting the removal of plastic microbeads and products containing them from the List.

A NOTE ON THE REGULATION OF PRODUCT STEWARDSHIP SCHEMES

In instances where industry inaction or dysfunction means a voluntary scheme is not possible, the Australian Government has the option for regulatory interventions as a means of maximising industry-wide involvement in product stewardship schemes. However, it is also important to keep in mind that schemes supported by regulation are not immune from challenges stemming from non-participation¹⁴.

Regulation can help to eliminate free-riders but the devil is in the details. In fact, free-riders can be unintendedly introduced into a regulated product stewardship scheme during scheme design. As one example, exemptions for scheme participation based on criteria such as size of business can create legal loopholes for free-riders to exist. Moreover, mandatory schemes without enforcing authorities or compliance mechanisms may also fail to ensure participation or adherence to specified rules of all required actors.

OVERCOMING THE FREE-RIDER PROBLEM: A MULTI-PRONGED APPROACH

From our review of the literature, we have identified ten strategies that can be employed to overcome the free-rider problem. It is important to note that often a combination of these strategies is required in order to reduce instances of free-riding in voluntary product stewardship schemes.

Ensuring broad industry engagement

It is important to incorporate key industry partners in scheme design from the very beginning¹⁵. For example, businesses may be reluctant to come on board until their competitors join a scheme. A key way to address free-riders is to bring them into the scheme design process as early as possible. It is important to have a clear understanding of industry players, including those identified as potential free-riders, and encourage their participation and address their concerns in the scheme design phase.

Promoting cost-efficiency through scheme design

Scheme design itself plays a critical role in encouraging participation and discouraging free-riders. Schemes should minimise costs of participation and aim to share costs equitably with a straightforward membership process that clearly delineates roles and responsibilities. Examples of scheme design considerations include ensuring fees that are fair and appropriate for businesses

¹⁴ Börner, L., & Hegger, D. L. T. (2018). Toward design principles for sound e-waste governance: A research approach illustrated with the case of the Netherlands. *Resources, Conservation and Recycling, 134*, 271–281. https://doi.org/10.1016/j.resconrec.2018.02.013. Park, J., Díaz-Posada, N., & Mejía-Dugand, S. (2018). Challenges in implementing the extended producer responsibility in an emerging economy: The end-of-life tire management in Colombia. *Journal of Cleaner Production, 189*, 754–762. Scopus. https://doi.org/10.1016/j.jclepro.2018.04.058

¹⁵ Park, J., Díaz-Posada, N., & Mejía-Dugand, S. (2018). Challenges in implementing the extended producer responsibility in an emerging economy: The end-of-life tire management in Colombia. *Journal of Cleaner Production*, *189*, 754–762. Scopus. https://doi.org/10.1016/j.jclepro.2018.04.058.



based on aspects such as cost recovery, market share and/or alignment with other industry initiatives or programs (i.e. acknowledging or rewarding participation in complementary initiatives).

Demonstrating the business case

It is important that product stewardship schemes communicate the business case for participating. This includes, for example, highlighting the competitive reputational advantages whereby consumers see participation in a scheme as an indicator that the business is caring for their workers, community and the environment. Engaging proactively in product stewardship can support business and industrial resilience in the face of current and future challenges.

In a collective scheme, where the costs of developing, administering, managing products at end of life are shared, there are likely cost savings compared to individual company initiatives. Effective industry-led stewardship schemes can also offer cost-efficient alternatives to regulation.

Unlocking privileged access to new markets

Scheme members can be rewarded with privileged access to a market as a tangible benefit that can help deter free-riders. For example, government incentive programs or access to tender opportunities can require participation in a product stewardship scheme as an eligibility requirement or condition of procurement. For example, Commonwealth Procurement Guidelines note the opportunity for members of product stewardship initiatives to use membership to demonstrate their commitment to sustainability¹⁶. Relatedly, access to opportunities such as networking and/or professional development programs that offer a competitive advantage to members can also serve as an incentive for participation and a deterrent to free-riders.

Addressing orphan waste

Orphan waste is the result of waste streams without an identifiable producer. Orphan waste has several sources, including being the result of products sold on "grey" markets or products that existed before a scheme was created. One such example of orphan waste could be photovoltaic panels that were installed many years ago by a company that is no longer in business and thus cannot contribute to stewardship initiatives¹⁷. Orphan products have been called the "ultimate" form of free-riding because waste from these products enters a product stewardship scheme without an identifiable liable party, potentially burdening participating scheme members¹⁸.

To reduce free-riding, it is important for schemes to have mechanisms to identify and manage historical sources of orphan waste and eliminate the introduction of new orphan waste, while also not placing an unreasonable burden on a participating business. This requires a strategy for managing existing orphan waste, whereby it is the responsibility of a scheme to try to fairly distribute the cost of disposing of historical waste amongst scheme members, while also working to prevent the occurrence of new orphan products by working to bring the industry into their scheme. Indeed, the challenge for a scheme is to meet the environmental objectives of their respective industries and ensure waste is managed in a responsible manner without undermining the financial viability and industrial credibility of a scheme¹⁹.

¹⁶ Department of Finance. (2020). Commonwealth Procurement Rules.

¹⁷ Department of Agriculture, Water and the Environment. (2021). Minister's Priority List 2021-22.

¹⁸ Manomaivibool, P. (2009). Extended producer responsibility in a non-OECD context: The management of waste electrical and electronic equipment in India. *Resources, Conservation and Recycling*, *53*(3), 136–144. https://doi.org/10.1016/j.resconrec.2008.10.003

¹⁹ Salim, H. K., Stewart, R. A., Sahin, O., & Dudley, M. (2020). Systems approach to end-of-life management of residential photovoltaic panels and battery energy storage system in Australia. *Renewable and Sustainable Energy Reviews*, *134*, 110176. https://doi.org/10.1016/j.rser.2020.110176



Bestowing reputational rewards

Product stewardship schemes can bestow tangible and intangible reputational rewards to scheme members. Membership in a scheme can serve as a quality signifier that can be used in branding and promotional materials, separating members from non-members²⁰. Through targeting rewards on members, rather than non-members or free-riders, schemes can encourage a broader swathe of participation. Government accreditation of voluntary industry-led schemes also serves as a marker of credibility or quality seal²¹.

Instilling confidence and accountability through third-party monitoring

An additional way to reduce instances of free-riders and instill confidence in a scheme is through third-party monitoring. External auditing and monitoring activities support transparency and ensure participants are acting in a responsible manner and are accountable for their actions. External auditors can also be employed for processes such as ensuring recycling fees remain cost competitive and/or for ensuring discarded products that are collected are handled responsibly. To instill confidence amongst scheme members, performance monitoring should take place on a regular basis. In the Australian context, government accreditation as discussed above also acts as an important form of third-party oversight.

Additionally, ACCC authorisation can be viewed as an example of external auditing of activities that applies in instances where a scheme's activities may be viewed as anti-competitive. As one example, where a scheme aims to encourage participation by requiring members to preferentially deal with other members via an enterprise-to-enterprise agreement, ACCC authorisation has been sought by schemes to provide protection against the risk of breaching consumer law. In this case, authorisation is provided based on an assessment that the specified activities that could be deemed to be anti-competitive are in the public benefit²².

The power of peer pressure

The power of naming and shaming of "bad apples" who flout product stewardship agreements should not be discounted²³. Separating the "good" from the "bad" helps to ensure that free-riders are excluded from the reputational benefits created by a scheme. Existing scheme members can also put pressure on free-riders to comply with scheme obligations by showcasing good practice²⁴. Specific to the Australian context, where a voluntary product stewardship scheme is government accredited, under the RAWR Act the Minister can also play an important role in "naming and shaming" free-riders in Parliament.

²⁰ Holtmaat, E. A., Adolph, C., & Prakash, A. (2020). The global diffusion of environmental clubs: How pressure from importing countries supports the chemical industry's Responsible Care® program. *World Development*, 127. https://www.sciencedirect.com/journal/world-development

²¹ Department of Agriculture, Water and the Environment. (2021). <u>Product Stewardship Accreditation.</u>

²² It should be noted that ACCC authorisation does not have a direct role in encouraging participation to address free-riders. Rather, it is protection for schemes against possible legal breaches to consumer law.

²³ Misani, N. (2010). The convergence of corporate social responsibility practices. *Management Research Review*, *33*(7), 734–748. https://doi.org/10.1108/01409171011055816

²⁴ Khetriwal, D. S., Kraeuchi, P., & Widmer, R. (2009). Producer responsibility for e-waste management: Key issues for consideration – Learning from the Swiss experience. *Journal of Environmental Management*, *90*(1), 153–165. https://doi.org/10.1016/j.jenvman.2007.08.019



Embracing circular design

Product stewardship schemes can strive to influence product design that can spur environmental improvements through engaging with circular design principles²⁵. It is important to keep in mind that product stewardship activities encompass the entire lifecycle of a product. Engaging with circular design interventions, such as the use of high-quality inputs that extend product life and/or enable eventual recyclability, can lower the environmental burden placed on product stewardship schemes.

In this way, improvements in product design also can hold significant value in reducing end-of-life (EOL) management costs, as well as encouraging innovation which can be a competitive advantage. These are all considerations that can discourage free-riding through supporting innovation.

Celebrate the wins

There are numerous examples from Australia and around the world of product stewardship schemes having a positive effect on the environment and human health, by preventing waste, removing hazardous materials, extending the life of products, recovering and reusing parts and materials, diverting materials from landfill, and enabling citizen participation in repair, reuse and recycling.

It is important to highlight the achievements, benefits and effectiveness of product stewardship schemes for all of the different actors involved, which not only rewards scheme participation but can also encourage free-riders to formally engage with a scheme. Our annual product stewardship excellence awards will promote best practice stewardship and celebrate exemplary stewardship outcomes.

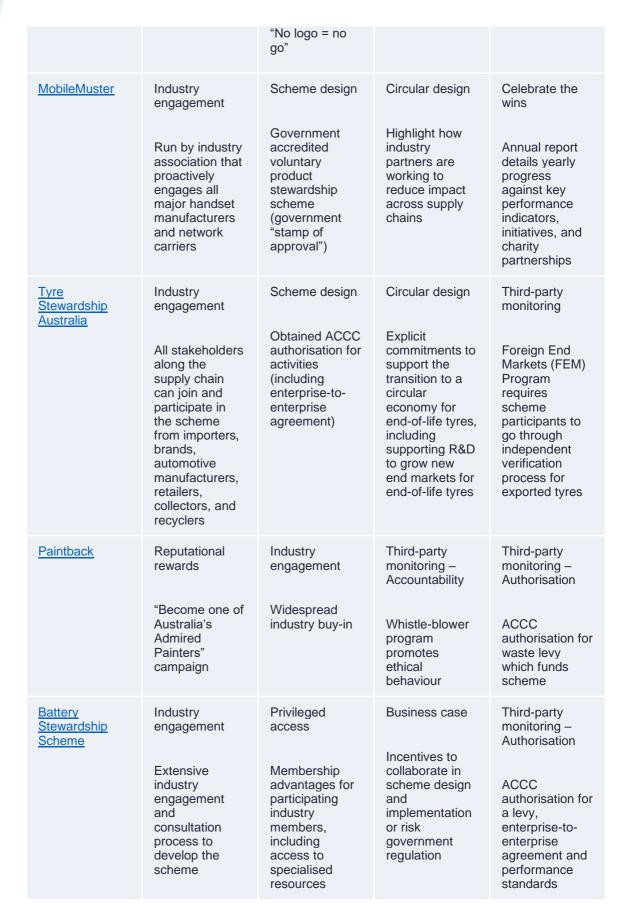
CASE STUDIES

Here, we will highlight how different Australian product stewardship schemes have sought to overcome free-riders through the use of the multiple strategies described above.

Product Stewardship Scheme	Strategy 1	Strategy 2	Strategy 3	Strategy 4
drumMUSTER	Scheme design	Costs of non- participation	Reputational rewards	Celebrate the wins
	Highly targeted: Program is the only responsible way to dispose of farm chemical containers	Containers without the program logo (because manufacturer has opted out/not paying levy) will not be accepted by approved retailers.	Testimonials from users (from young farmers to CEOs) regarding the benefits & ease of use of program	Detailed data on the results of the program (for example, over 37 million containers have been collected)

²⁵ Campbell-Johnston, K., Calisto Friant, M., Thapa, K., Lakerveld, D., & Vermeulen, W. J. V. (2020). How circular is your tyre: Experiences with extended producer responsibility from a circular economy perspective. *Journal of Cleaner Production*, *270*, 122042. https://doi.org/10.1016/j.jclepro.2020.122042

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^{*}Note: these schemes may incorporate additional strategies to those presented here.



In summary, we can see from these case studies that there are a number of common strategies employed in reducing free-riding in voluntary product schemes, including:

- Clear scope and focus: Schemes that target a specific suite of products relevant to a market segment or industry sector are more easily able to bring stakeholders together where the benefits of collaborating to reduce a products' environmental impacts outweigh nonparticipation
- Early and transparent engagement: To ensure buy-in, it is important to incorporate industry
 players from the beginning (from scheme design to implementation). Equally, it is important to
 engage in ongoing dialogue and consultation to ensure industry needs are met and
 challenges, such as free-riders, are addressed as early as possible
- Strong brand and reputation: Schemes with strong brand recognition and a demonstrated, trusted impact in their sector not only rally participation but generate pride and enthusiasm around their initiatives. Here, it is important to have clear objectives, transparent public reporting, and quantifiable examples of scheme benefits and outcomes, which can be shared with key stakeholders including the general public.



CONCLUSIONS

Free-riders are a key challenge facing product stewardship schemes in Australia and around the world. In this whitepaper, we have explored a range of strategies for overcoming the free-rider problem. Free-riders pose a significant challenge to product stewardship schemes as they can threaten the legitimacy, credibility and effectiveness of a scheme and thus represent a key barrier to accelerating the uptake of stewardship activities and associated environmental benefits in Australia.

However, it is possible for a product stewardship scheme to address and work to overcome this challenge. Based on a review of the approaches taken by schemes in Australia and around the world²⁶, we have identified ten practical, non-regulatory strategies for addressing free-riders:

- 1. Ensuring broad industry engagement
- 2. Promoting cost-efficiency through scheme design
- 3. Demonstrating the business case
- 4. Unlocking privileged access to new markets
- 5. Addressing orphan waste
- 6. Bestowing reputational rewards
- 7. Instilling confidence and accountability through third-party monitoring
- 8. The power of peer pressure
- 9. Embracing circular design
- 10. Celebrate the wins.

As has been noted, the use of a single strategy is unlikely to be effective in and of itself, but rather, it is likely that a multi-pronged approach is necessary.

The Product Stewardship Centre of Excellence can support industries and schemes as they work to address free-riders. This includes through one-on-one mentorship activities, as well through our growing list of resources (webinars, practice notes and more) and our product stewardship network. The Centre will also continue to unpack the business case for individual firms to adopt product stewardship in their business models²⁷.

In the future, we will also provide resources through case studies, tools and the annual product stewardship excellence awards that promote best practice and celebrate solutions in addressing the challenges of free-riders.

²⁶ A detailed list of the literature reviewed is available on request from the Centre.

²⁷ Our growing list of resources can be found on our website: https://stewardshipexcellence.com.au/resources/



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