



COVER SHEET FOR SUBMISSIONS

Updating the 2009 National Waste Policy: Less waste, more resources

Overview Feedback is invited on the discussion paper: <i>Updating the 2009 National Waste Policy: Less waste, more resources</i> . Submissions should be provided by 5pm (AEST), Friday 5 October 2018.			
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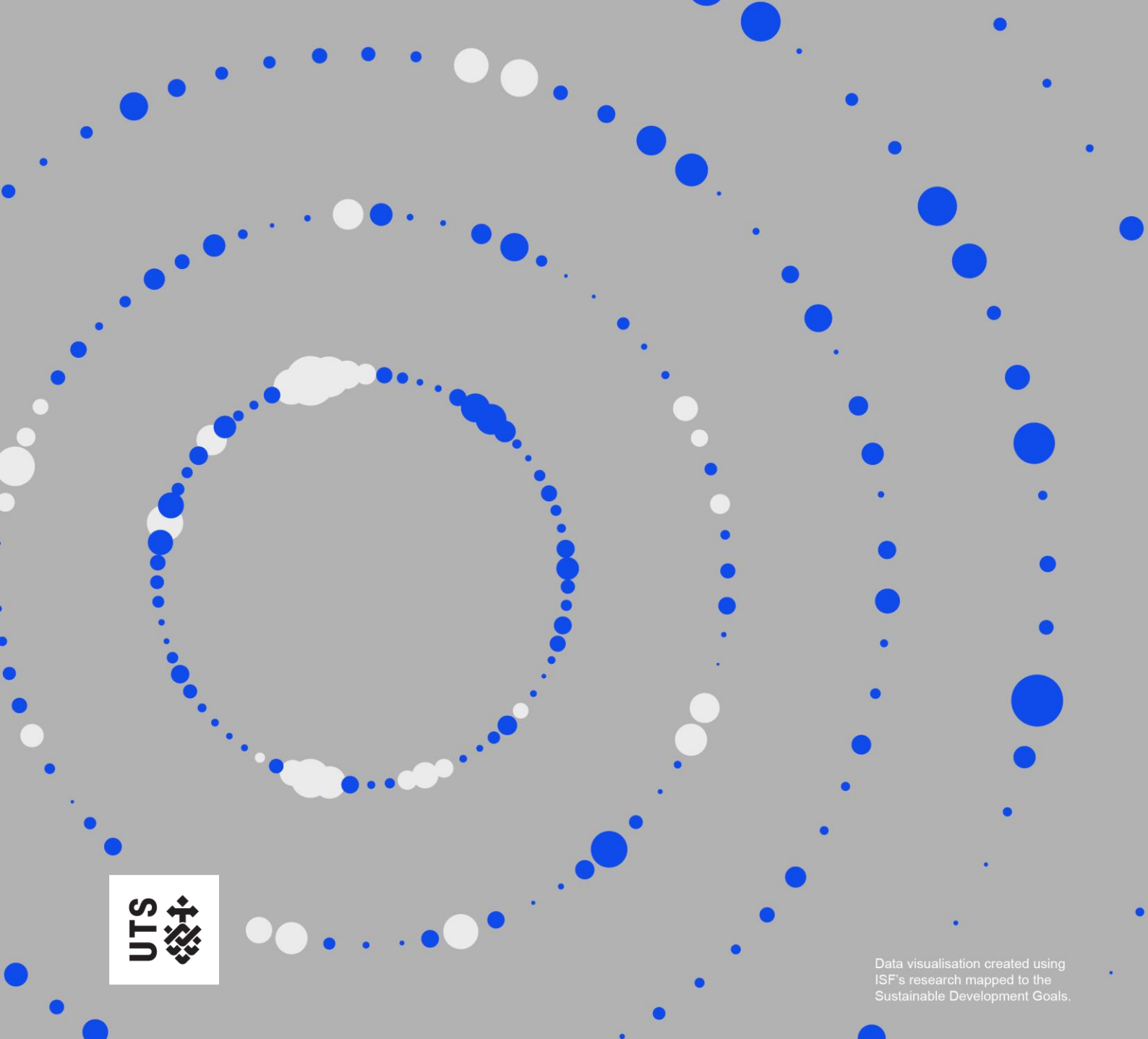
Where possible, submissions should be sent electronically, preferably in Microsoft Word or other text-based formats, to the email address below.

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Submissions should be sent to:

Email: nationalwastepolicy@environment.gov.au

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Data visualisation created using ISF's research mapped to the Sustainable Development Goals.

Institute for
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Submission on National Waste Policy

October 2018

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The **Institute for Sustainable Futures (ISF)** is an interdisciplinary research and consulting organisation at the University of Technology Sydney with over 100 research staff and students. ISF has been working collaboratively since 1997 with governments, businesses, organisations and communities to create change towards sustainable futures. Our work in Australia and around the world aims to protect and enhance the environment, human wellbeing and social equity. We do this by developing transformative ideas into strategies that deliver impact and have a strong record of achievement in advancing circular economy and resource stewardship initiatives.

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Summary

The proposed principles, targets and strategies in the Update to the 2009 National Waste Policy are a good start.

They address the critical issues facing Australia's waste and recycling industry right now, including

- dealing with China's recycling imports crackdown
- reducing litter and marine plastic debris
- focusing on recovering organic waste such as food and textiles, one of the major obstacles to current recycling programs
- harmonising the various disparate state policies.

All of these are important and necessary, and their inclusion is commendable.

However in our view, the proposals could go further.

They represent only a moderate evolution from our current situation.

In the context of growing global movement towards circular societies, the current proposal's inclusion of circular economy principles is minimal. The major focus is still on recycling and recovery, with the addition of other levels of the waste hierarchy acknowledged under the first principle, Avoiding Waste.

Despite acknowledging the importance of a circular economy in the preamble, the proposed update does not truly incorporate circular economy principles.

While recycling is definitely a circular activity, it only cycles materials at end of life after intensive reprocessing. A truly circular economy is

“a regenerative system in which resource input and waste, emissions, and energy leakage are minimised by slowing, closing, and narrowing material and energy loops.

This can be achieved through long-lasting design, maintenance, repair, reuse, [reassembly], remanufacturing, refurbishing, and recycling”

(Geissdoerfer et al., 2017, p.759¹)

To enable this, products, components and materials must be kept in use as long as possible, at their highest value, requiring innovation in business models and transformation of production and consumption practices.

We believe that the combination of this global context with the China recycling 'ban' shock to our recycling industry and the burst of waste onto the Australian consciousness through the War on Waste and media 'exposure' of issues in our waste and recycling system means that Australia has a unique opportunity to create a step change in not only our resource recovery industry but also our economy and broader society. The proposed targets and strategies miss the opportunity of setting this long-term vision.

To achieve this, the updated National Waste Policy could more explicitly adopt the key principles of a circular economy and increase support to transition towards it.

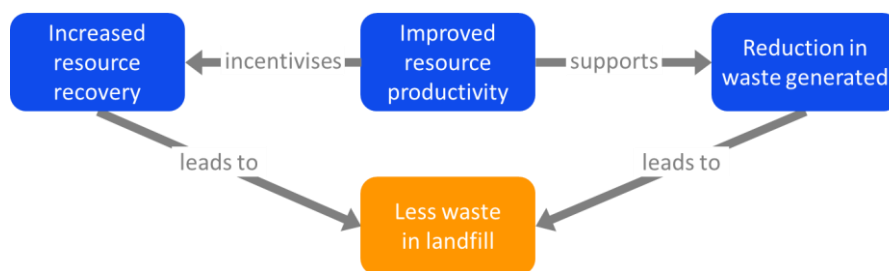
¹ Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The Circular Economy—A new sustainability paradigm?. *Journal of Cleaner Production*, 143, 757-768.

General recommendations

1. Explicitly adopt key principles of the circular economy and significantly increase support for transition towards it, including:
 - A. Appointment of a Commissioner for Circular Economy to be a recognisable focal point for industry and government, facilitate connecting the dots between good work already in train at local and state scales and be custodian of ensuring data are available to monitor implementation progress.
 - B. Adopt an overall measure of the transition to the Circular Economy, such as a Resource Productivity target, which compares raw material consumption against gross domestic product, similar to Australia's national target for Energy productivity.

Resource productivity can strengthen incentives for increased resource recovery (by valuing the quality of resources made available back to the system), and can support reduction in waste generation through increased resource efficiency of products that may eventually become waste.

Relationship of resource productivity to waste avoidance and recovery



Plus additional measures under each Principle, as specified below.

2. Ensure that all 'Strategies' in the plan have clearly actionable components with at least one specific action by Federal or State government (agreed through the Meeting of Environment Ministers or appropriate channel) setting out the actual approach, means, or instrument to implement, with at least one measurable target.
3. Ensure that metrics and approach to measurement of progress towards targets are designed carefully to enable effective and useful assessment of progress, and recognise contribution of actions relative to other factor, including:
 - A. Express targets in both relative (ie. percentage) and absolute (eg. weight, volume, etc) terms, with additional sub-targets or metrics, including greenhouse gas emissions to enable thorough measurement of progress.
 - B. Ensure measurement approach takes account of external factors that may hide or inflate progress towards target.

Principle 1. Avoid waste

- Investigate and develop sub-targets for reuse, repair/refurbishment and reassembly/remanufacture, plus 'product as service'/sharing models, such as supply metrics (eg. number/ market share, value/ share of output of such businesses) and/or demand metrics (eg. uptake of such services by businesses and consumers), and specify actions to meet them.

Inspiration could be drawn from [Scotland's Circular Economy Strategy](#) and [France's Circular Economy Roadmap](#) which include specific actions around Design, Reuse, Repair and Remanufacture. This could also be used to inform the types of "infrastructure and information sharing" referred to under Strategy 3.

- Include in above actions, guidance and support to Local Governments to increase reuse and repair, such as incorporating into existing kerbside collection services and community recycling centres.
- Identify and provide appropriate support for business model innovation (such as delivering 'products as services', and developing modular products that can be dismantled and reassembled) and support development of local industries to meet new sub-targets.

Inspiration can be drawn from case studies such as: [Innovate UK](#) (a CE innovation fund), [Scotland's Circular Economy Investment Fund](#), [Scotland's Circular Economy Strategy](#) (with focus on support for reuse, repair, remanufacture), [UK/Netherlands REBus](#) (supporting resource efficient business models), [Zero Waste Scotland's Circular Economy Business Support Service](#).

- Develop and implement design standards and/or voluntary agreements to mandate minimum resource efficiency and recoverability of locally manufactured (and potentially, imported) products.

Minimum design standards (such as the [EU EcoDesign Directive](#) for electronics and appliances and [European Clothing Action Plan](#) voluntary agreement) support and speed up improvements in design, while approaches such as Australia's [Packaging Recycling Evaluation Portal \(PREP\)](#) commissioned by the Australian Packaging Covenant could be modelled in other industries.

Response to Questions

1.1 Do you agree with the proposed target? YES conditionally, as long as reduction in waste generation is calculated excluding or controlling for fly ash, and noting that even this small target is unlikely to be reached without concrete actions incorporated into the Policy.

1.2a. Should targets be set separately for municipal solid waste, commercial and industrial waste, and construction and demolition waste? YES. 'Sub' targets are important both to ensure that each sector is targeted for improvement, and to distinguish where progress is stalling if the overall target is not being met.

1.2b. Should there be a target to reduce waste to landfill *instead* of a generation target? NO. Reduction in waste to landfill will be captured through the Resource Recovery target, and (in theory) can be achieved purely through diversion with no reduction in generation. However waste avoidance has greater overall benefits, and so requires its own target to drive it.

Principle 2. Increase resource recovery

8. Incorporate truly Extended Producer Responsibilities, including responsibility to design for long life and next life, not just recovery systems for end-of-life under *Strategy 4: Product Stewardship*, and expand to encompass a wider range of products, especially potentially hazardous products like e-waste.
9. Support development of innovative recycling that maintains or increases the value of material at end of life under *Strategy 7: Increasing industry capacity*.
10. For example, a UK university has developed a process to turn [organic bin waste into a substitute for bitumen](#), this displacing one of the biggest sources of carbon emissions in road construction while using at least four times more 'waste fraction' than 'plastic roads'.
11. Develop suitable policy to support appropriate and innovative energy recovery of residuals (such as thermal pyrolysis and gasification) while limiting the ability to send reusable/recyclable material to incineration, under *Strategy 7: Increasing industry capacity*.
12. As part of discussions under *Strategy 5: A Common Approach*, also consider areas where performance across all states could be improved, including:
 - A. Considering characterising waste as an Essential Service to improve waste and resource recovery considerations during planning.
 - B. Reducing 'leakage' from the system by investigating effective strategies to strengthen approaches to litter and illegal dumping, including potentially a nationally harmonised Container Deposit Scheme system.
 - C. Improving and harmonising collection of municipal waste in line with best practice to improve the quality of collected recyclables, particularly through investigation of the benefits of increased kerbside source separation and alternative such as 'bring' systems, with the aim of developing nationally-harmonised model guidelines.

Increased source separation has been shown to [improve both the quality and quantity of collected material](#). Europe has [strong source separation systems in many countries, including 'bring' systems for glass / paper](#) and has [introduced policy recently to strengthen it further](#).
 - D. When discussing a common approach to waste levies, give due regard to landfill bans, such as the Victorian e-waste ban, as there is a risk that banned goods could be transported out of regulated areas.
13. Provide support and investment to improve capacity of existing recycling facilities under *Strategy 7: Increasing industry capacity*, including consideration of enforceable Codes of Practice which stipulate sampling and reporting of material quality, composition and contamination (such as the [UK's MRF Code of Practice](#), potentially beginning with an *initial detailed survey of MRF operators*).

Response to Questions

2.2 Is there a different target that should be included? YES conditionally, a sub-target for *recycling* should be explored for its effectiveness in ensuring that Australian maintains the correct focus and intention on recycling above energy recovery, while enabling sufficient energy recovery for residuals that are currently going to landfill. **Should targets only refer to recycling?** NO (conditionally) as long as an appropriately ambitious sub-target for recycling is also be set (as per above).

Principle 3. Build local demand

14. Expand focus from 'sustainable' to 'circular' procurement to include goods and infrastructure that have been and/or are able to be shared, reused, repaired and remanufactured, as well as those incorporating recycled content, including
 - A. Enable and encourage local government and big businesses to adopt 'circular' procurement policies, potentially including reviewing state policy/regulations and developing guidance/model guidelines for local government circular procurement.
 - B. Enable and encourage medium to large businesses to incorporate environmental and circular economy issues into their procurement policies, including potentially by developing and providing guidance and incentives.
 - C. Enable and encourage SMEs and consumers to consider circular/sustainable when obtaining goods/services including potentially by developing and providing guidance and incentives.
15. Consider expansion of product labelling to include key circular economy indicators, such as durability/repairability/recoverability of products, percentage of recycled content in packaging/products, alongside percentage of recycled content.

Response to Questions

3.1 Do you agree with the proposed target? YES conditionally. Modelling for how the 30% target was set would allow better assessment of appropriateness of this target. Further allowance should be made to increase the target once local capacity to produce high quality recycle matures.

3.2 Is there a different target that should be included? YES, additional sub-targets measuring adopting of circular/sustainable procurement by local government, large/public businesses and SMEs.

Principle 4. Manage material flows

Organics

16. Ensure that the target to 'Halve organic waste to landfill' does not double-count the reduction in food waste to landfill through the target to reduce food waste generation by 50%, but instead drives further recovery of organic waste beyond what is achieved under Strategy 1.
17. Explore convergence between the water and waste sectors, including opportunities for anaerobic digestion.

Chemicals and hazardous waste

18. As part of eliminating/substituting for hazardous chemicals, also investigate and implement suitable mechanisms to measure and protect against leaching of potentially hazardous chemicals into new products during the recycling process.

A key issue to be addressed is the potential for chemicals like endocrine disrupting chemicals (EDC), that are used in most plastic products and e-waste, to leach into new consumer products. EDCs and other chemicals can act in very different ways according to how they are used / what they are combined with, as illustrated by [flame retardants in recycled plastic toys putting children's health at risk](#).

Principle 5. Improve waste information

19. Harmonising and improving the quality of state reporting of waste data, with regularly updated, easily accessible granular data setting out assumptions.
20. Expansion of proposed data and reporting to capture electronic and emerging waste streams, such as PVs and batteries.
21. Develop a database of above-ground stocks of secondary resources, expanding the concept of the [Australian Recyclable Resources Atlas developed by Monash University](#).