

RMCG

Agriculture Plastics in Australia

Ending Plastic Waste Symposium

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Certified



Corporation



Current landscape



Challenges and issues – why care?

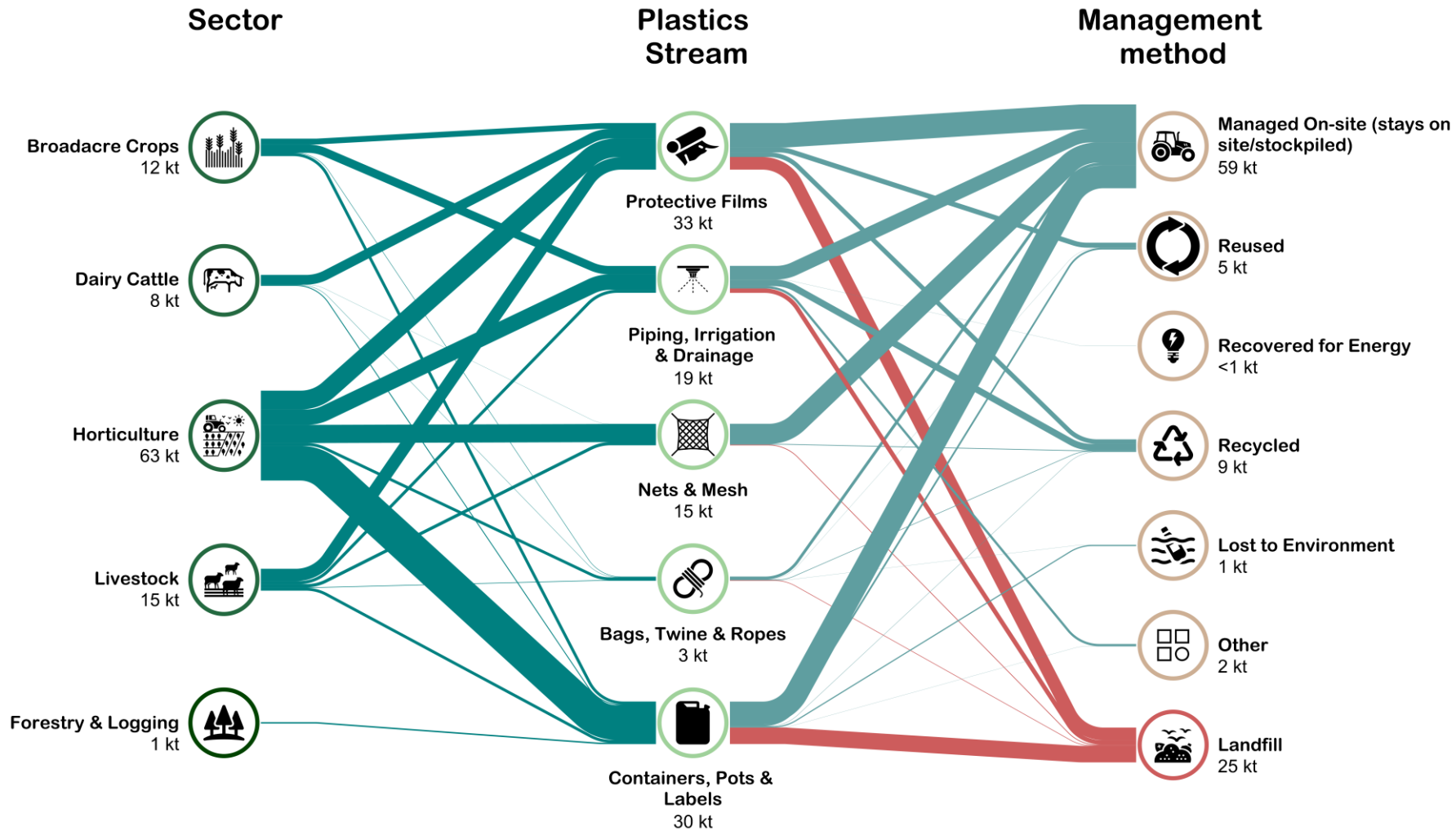
CHALLENGES OF MANAGING AGRI-PLASTICS

- **Complexity of plastics** – variety of streams, composition and characteristics
- **Logistics** – large number of farm businesses, long distances
- **Contamination** – of plastics limit their recycling
- **Lack of market demand** – for products made of recycled plastics
- **Limited plastic recycling infrastructure**
- **Limited alternative products** with better sustainability characteristics

ISSUE OF AGRI-PLASTICS

- **Environmental**
 - Stockpiled, buried or burnt on farms where plastic breakdown and pollutes soils, water and air
 - Microplastic in soils and loss of productivity and resilience
- **Financial – cost efficiency**
- **Social – license to operate**

Plastic use, waste & resources



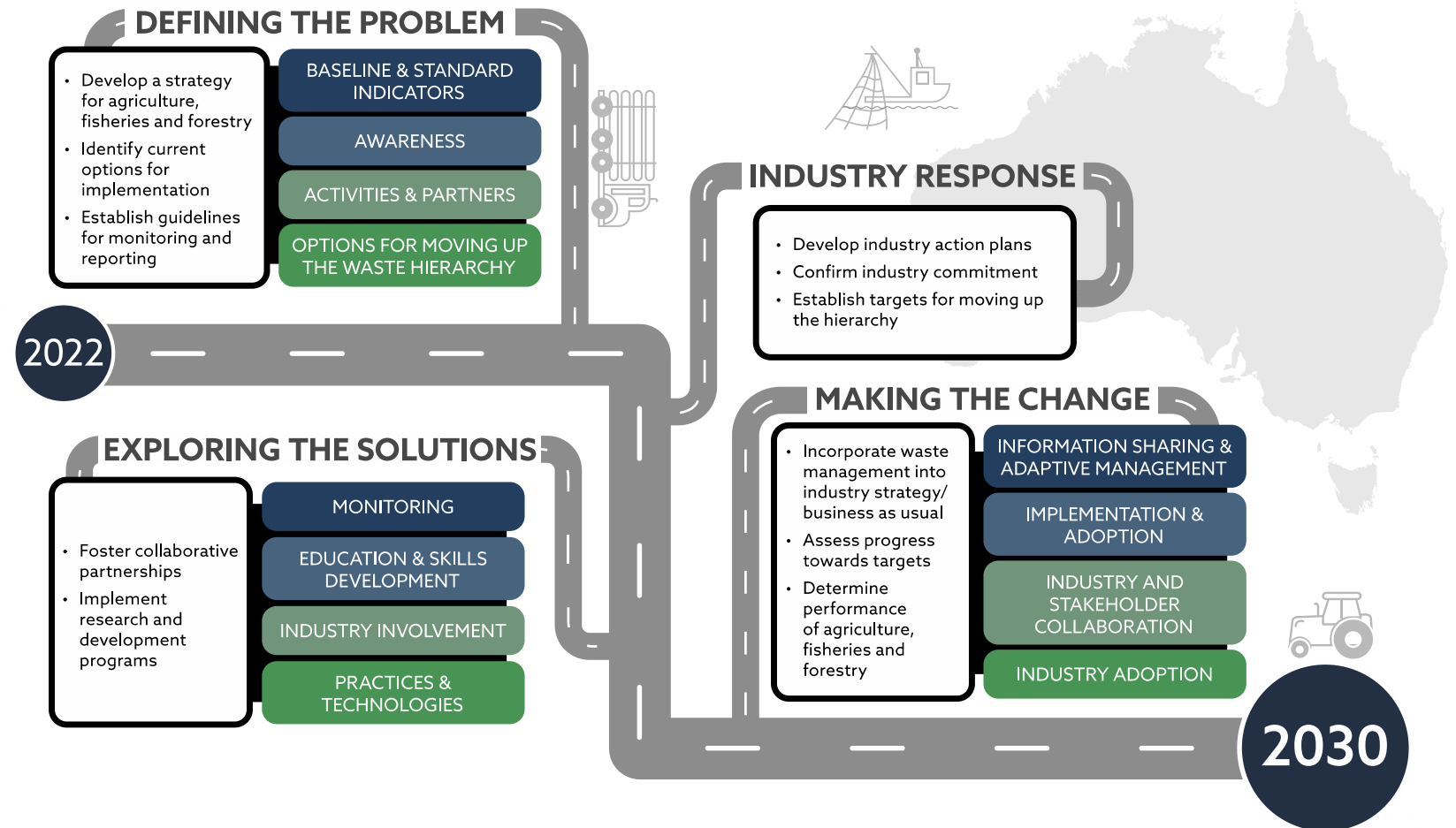
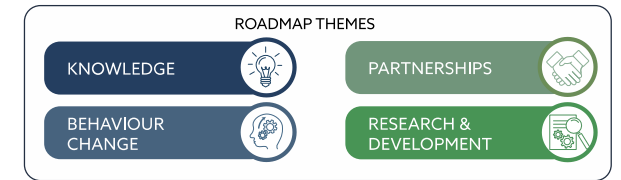
Pathways forward & current solutions

National Roadmap

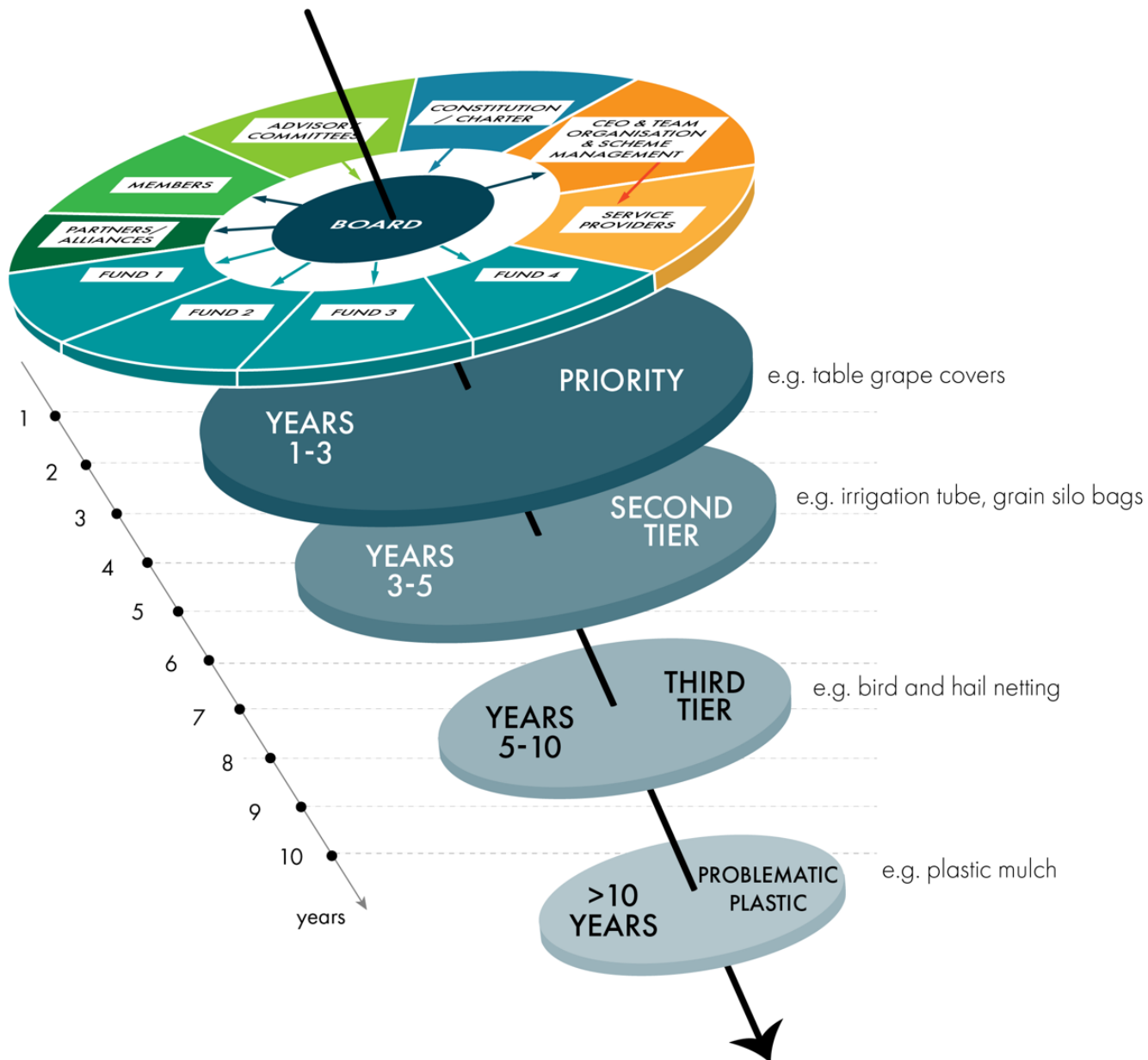
- Project included significant industry engagement provides background and context to the waste issue in agriculture
- Description of what industries are currently doing
- Highlights strategy for activities to be undertaken
- Provides a timeline to address issues to 2030

4.5 WASTE AND RESOURCE RECOVERY ROADMAP

Aligned with the identified priority themes, there are several key activities to occur by 2030 to facilitate progress against the goal of moving up the waste hierarchy. These activities are highlighted with the following summary roadmap.



Product stewardship scheme



- Project delivered a business case, pilots, implementation plan and standards
- Focus on problem plastics with quantity and quality that can foster a viable collection, transport and recycling systems
- Regional/product specific schemes exist
- Opportunity for holistic approach – aim for a ‘one-stop shop for drop-off’ – e.g. France, Canada, New Zealand
- **NEXT STEP** – action through a body and implementation.

Long-list opportunities

- Consolidated repository of available options
- Options that move up the hierarchy
- Options are available, but the setting has limited practice change
- Case studies for soil biodegradable plastic mulch and plastic in fisheries

Snapshot from 'Agriculture, fisheries, forestry waste Roadmap – appendix iii'

CASE STUDIES

	INITIATIVE	DESCRIPTION
29	Using certified soil biodegradable plastics	Refer to case study on page 29
30	Establishing reception facilities that accept unwanted fishing gear	Refer to case study on page 29

SHORTLISTED OPTIONS FROM THE ASSESSMENT

	INITIATIVE	WASTE HIERARCHY POSITION	DESCRIPTION
31	Using sisal, jute or hemp as plant twine, ties and nets instead of plastic counterparts	Reduce	Increase the use of compostable twine, ties and nets in place of polypropylene equivalents, by incentivising farmers to use them.
32	Closed-loop recycling of aquaculture plastics	Recycle	Expand closed-loop recycling of end-of-life aquaculture products to produce the same aquaculture products.

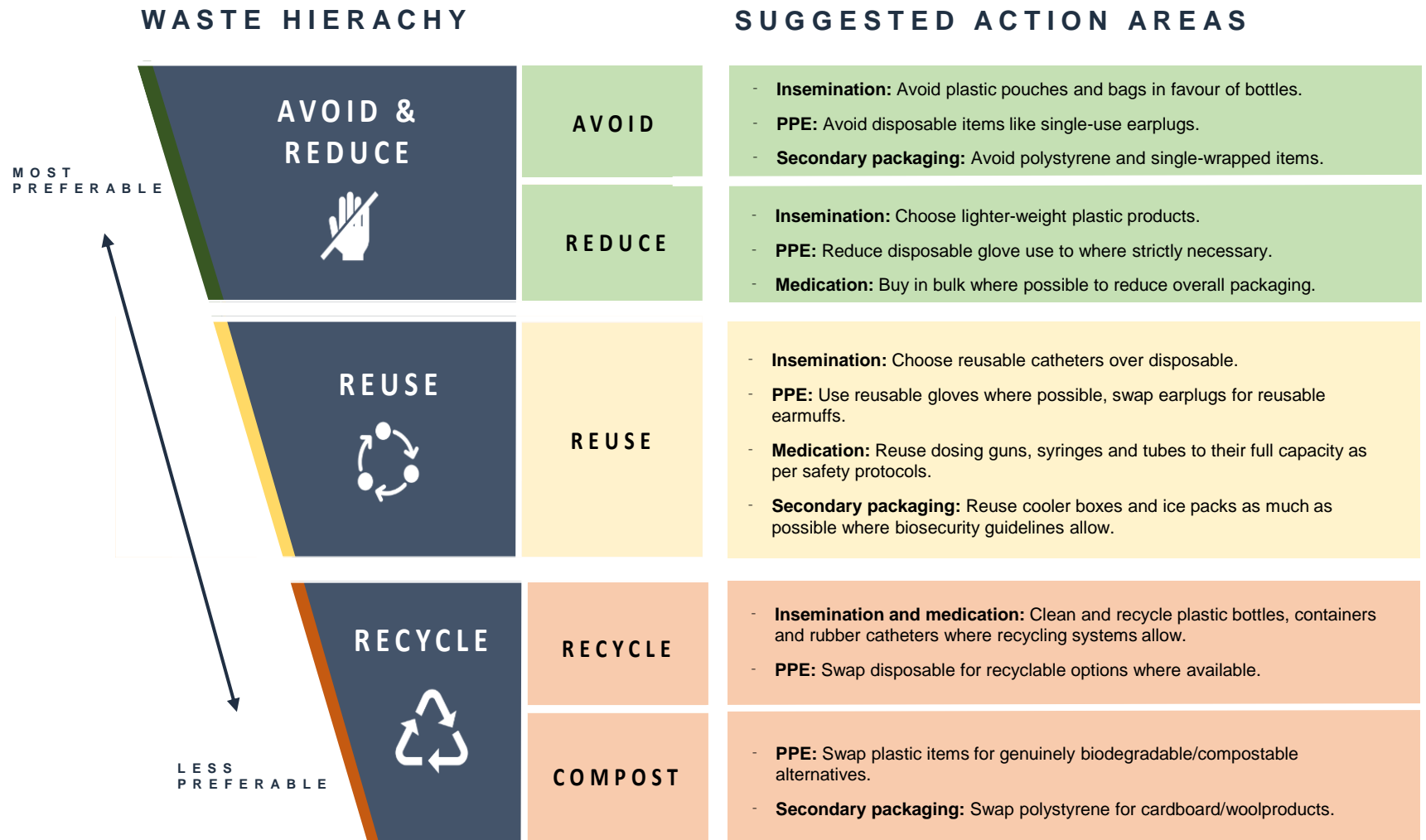
OTHER OPTIONS NOT SHORTLISTED

	INITIATIVE	WASTE HIERARCHY POSITION	DESCRIPTION
33	Establishing a database to report and find ghost nets	N/A	Central database to report ghost nets found.
34	Collecting and recycling banana bags	Recycle	Banana growers participating in an international plastic program whereby projects are issued credits if plastic is collected and recycled.
35	Exploiting enzymes that depolymerise plastic and enable recycling	Recycle	Technology that depolymerises plastics into the constituent monomers, which can then be reused to produce food-grade plastics. Reduces reliance on fossil fuels to produce virgin plastics and addresses existing plastic waste.
36	Leasing reusable pallets and containers	Avoid	Commonly used containers and pallets are leased to operations, preventing purchasing and subsequent waste.
37	Promoting sustainability in the marine industry to improve environmental outcomes and rehabilitate marine habitats	N/A	Setting up marine natural resource management organisations to promote sustainability practices, minimise environmental impact and improve marine ecosystem health.
38	Using reusable crates to replace EPS crates for fish	Reuse	Using crates that have smooth inner and outer surfaces and an insulating polyurethane centre to house fish, replacing conventional EPS crates. This reduces environmental issues caused by EPS use and the new crates can be cleaned and reused effectively.
39	Implementing greater standardisation of plastics to improve the viability of recycling	Recycle	Creating standards for common plastics. Work with suppliers to change manufacturing processes.
40	Implementing standards requiring minimum thickness of non-biodegradable mulch films	N/A	Improve ease of retrieving non-biodegradable plastic mulch films from soil (when they have reached their end-of-life), by requiring manufacturers to produce film with a minimum thickness.
41	Using hydroponics irrigation methods instead of irrigation tape	Avoid	Increasing the use of hydroponic irrigation methods in place of drip irrigation systems.

Pork industry

VETERINARY SINGLE-USE PLASTICS CONSUMABLES

- Map volume, characteristics, use and pathways
- Investigate strategic, informative and practical options
- Case studies
- Industry presentation
- Recommendations for engagement



NSW cut flower industry

SINGLE-USE PLASTICS

- Map the type, characteristics, use and pathways
- Investigate use function to be able to consider practices to reduce, reuse, and recycle more
- Impact assessment of plastic + options
- Issues:** logistics (how to collect, distance), behavior change (willingness to change)
- NEXT STEP** – Engagement to improve practices

Plastic materials	Turnover	Volume	Management options	Priority
Pots and propagation trays	YEARS			P1
Crates	MONTHS			P1
Buckets	YEARS			P2
Irrigation piping	MONTHS			P1
Greenhouse skins	YEARS			P2
Plastic wraps	DAYS			P2
Plastic flower sleeves	DAYS			P1
Grow bags	MONTHS			P3
Weed mat	YEARS			P2
Shade cloths	MONTHS			P2
Gardening equipment	MONTHS			P3
Chemical containers	WEEKS			P1
Sprayers	MONTHS			P3
Poles, clippers & twine	MONTHS			P2
Gloves	WEEKS			P3
Plastic tables	YEARS			P3

Where to next?

International

- International plastic treaty and voluntary code of conduct on the sustainable use of plastics in agriculture

National

- **Research:** Solving plastic waste CRC + CSIRO research
- **Incentive:** Implement Ag-plast Stewardship scheme
- **Strategy and data:** National Agricultural waste strategy and data collection
- **Reduce and redesign:** Plastic design standards

More specific solutions

- National industry lead changes targeting plastic for their industry – reduce and reuse then recycle
- Regional solutions for hot spot area – Whitsundays/Bowen, Bundaberg, Swan Hill



More Information

LINKS

- [National Farm Waste portal](#)
- [National Baseline data](#)
- [National Roadmap](#)
- [National Option analysis](#)
- [Vet plastics in Pork](#)
- [Feasibility study of a regional plastic recycling facility for the Whitsunday Region](#)

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