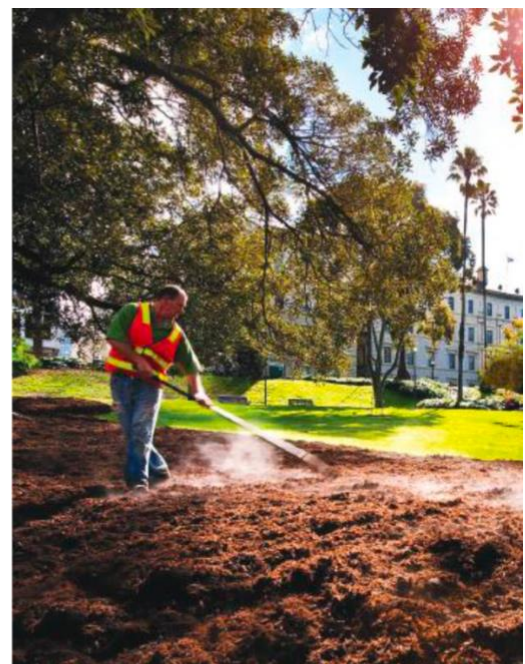


Australian Organics Recycling Industry Capacity Assessment: 2020-21



In partnership with



Australian Government
Department of Agriculture,
Water and the Environment



Government of South Australia
Green Industries SA

A E A S

Australian Economic
Advocacy Solutions

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REPORT PREPARATION

This report has been prepared by AEAS for AORA in partnership with Department of Agriculture and Water and the Environment and Green Industries South Australia.

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Executive Summary

Australian Economic Advocacy Solutions (AEAS) was commissioned by AORA (Australian Organics Recycling Association) to determine the existing and potential capacity and capability of the Australian Organics Recycling Industry (AORI) to meet recycling benchmarks that could be driven by improved policy settings.

Recycled organics can be defined as a generic term for a range of products manufactured from compostable organic materials (garden organics, food organics, residual wood and timber, biosolids and agricultural organics). There are essentially two distinct but related markets in the organics supply chain: the service market for waste stream removal and processing and the product market for compost.

Figure 1: Organic Markets

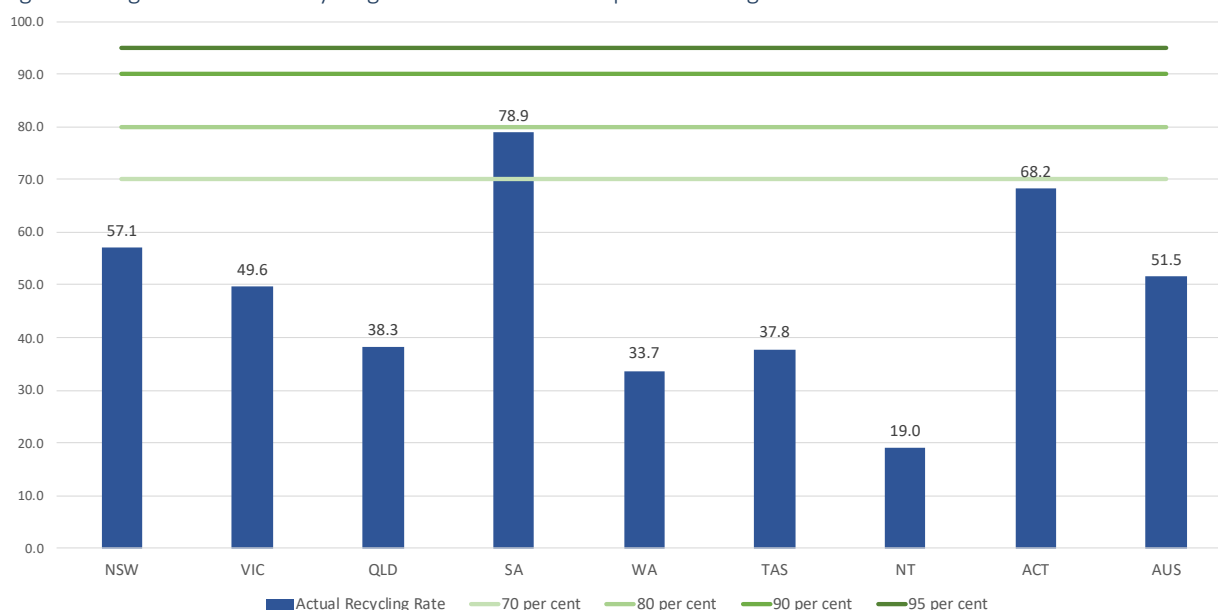


Source: AEAS

Each year the organics recycling industry is processing 7.5 million tonnes of waste to produce valuable product for further use across the Australian economy. Diverting organic resources for recycling, significantly reduces emissions and recovers valuable nutrients from being landfilled that improves sustainability and provides benefit to our community. Organics recycling closes the loop on food and other organic wastes and ultimately returns them to production through the soil or other value-added inputs to our economy. It is an exemplar of the “circular economy”.

In performing these commendable tasks for the environment, the Australian Organics Recycling Industry is also providing an enormous economic benefit to everyday Australians. Earlier this year AORA released ‘The Economic Contribution of the Australian, Organics Recycling Industries’ that revealed the considerable macroeconomic contribution the industry is making - providing over 4,845 jobs, \$366 million in wages and salaries, \$1.9 billion in supply chain opportunities and \$724 million in industry direct value add to the Australian economy.

Figure 2: Organic material recycling rates in 2018-19 and potential targets



Source: National Waste Report, AEAS

AEAS as part of the 'The Economic Contribution of the Australian, Organics Recycling Industries' report modelled what the economic and environmental contribution of the organics recycling industry would be if the current organics recycling rates were increased under four different scenarios - to at least 70 per cent, 80 per cent, 90 per cent and 95 per cent. Under the 95 per cent scenario:

- Organics recycling businesses would generate an extra \$1.7 billion in sales providing an additional \$1.6 billion in supply chain opportunity with an extra \$612 million in industry value add towards the Australian economy;
- Organics recycling businesses would provide 4,094 extra jobs paying \$309 million in livelihood to everyday Australians; and
- An extra 3,208,451 tonnes of greenhouse gas emissions would be saved which is equivalent to 4,797,587 trees planted; and 741,524 cars taken off the road each year.

Table 1 : Economic Gain – Australia (\$ millions)

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
No change	-	-	-	-	-	-	-
70%	1,834	139	771	712	66	87	274
80%	2,682	203	1,128	1,042	97	127	401
90%	3,624	274	1,524	1,408	131	171	542
95%	4,094	309	1,722	1,590	148	193	612

However, this enormous economic and environmental benefit is not only contingent upon the right policy settings but also industry's capacity and capability to take up the opportunity. To achieve a 95 per cent recycling rate the industry would need to increase its output by 6.4 million tonnes (from its current 7.5 million tonnes to 13.9 million tonnes) each year.

Table 2: Current and needed Organic Material Recycled (tonnes) to achieve Notional Recycling Rates

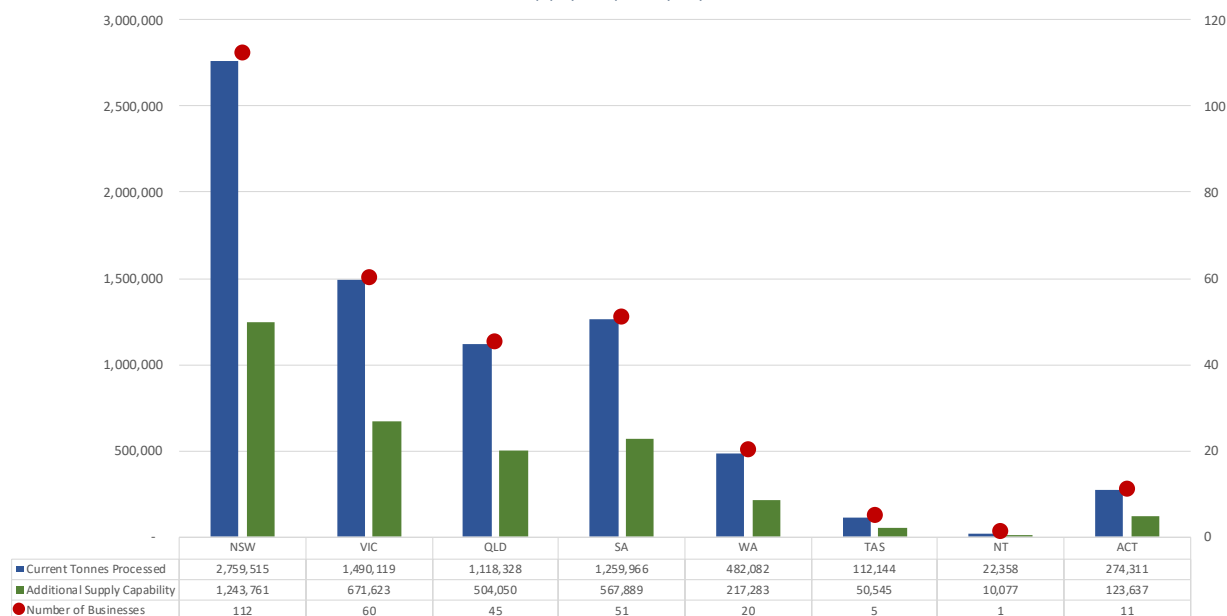
	Current	70%	80%	90%	95%
NSW	2,759,515	3,383,351	3,866,686	4,350,022	4,591,690
VIC	1,490,119	2,102,071	2,402,367	2,702,663	2,852,811
QLD	1,118,328	2,045,399	2,337,599	2,629,799	2,775,898
SA	1,259,966	1,117,707	1,277,380	1,437,052	1,516,888
WA	482,082	1,002,215	1,145,388	1,288,562	1,360,149
TAS	112,144	207,454	237,091	266,727	281,545
NT	22,358	82,185	93,926	105,667	111,537
ACT	274,311	281,627	321,860	362,092	382,208
AUS	7,518,824	10,222,009	11,682,296	13,142,583	13,872,727

Source: AEAS

Accordingly, AORA commissioned this report to examine the organic recycling industry's existing and potential capacity and capability to achieve the required increase in processing and production necessary to achieve 70 per cent, 80 per cent, 90 per cent and 95 per cent.

A key finding of the AORA Organic Material Recycling Capability Survey 2020, commissioned as part of this report, is that the industry is capable of processing an additional 51 per cent of organic materials given the physical capacity of their existing operations. Based on the current additional capacity of the industry, it is estimated to be able to provide an additional 3.8 million of collective processing capacity each year.

Figure 3: Current Tonnes Processed and Additional Supply Capacity by State



Source: AEAS

Based on this modelling, only South Australia and the ACT are capable of meeting the required capacity for each of the 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling rates. NSW is capable of meeting required capacity for a 80 per cent recycling rate but is not positioned to meet either a 90 per cent or 95 per cent recycling rate. All other States and Territories have shortfalls for meeting required capacity for 80 per cent, 90 per cent and 95 per cent recycling rates. AEAS in Table 3 has prepared a traffic light report for each state and their ability to supply to the corresponding recycling rate. Given that shortfalls in process capacity exist, this report confirms both growth for the existing industry and room for new industry businesses.

Table 3: Tonnes Processed Capacity Assessment

	70%	80%	90%	95%
NSW				
VIC				
QLD				
SA				
WA				
TAS				
NT				
ACT				
AUS				

Source: AEAS

Legend

Capacity is sufficient to meet target

Capacity is just short of target

Capacity is insufficient to meet target

On the basis of the above there will be a requirement to promote new industry participants once existing capacity is exhausted. This will particularly be the case for organic material recycling in most rural and regional areas, where there is little or no way to deal with organic waste but to landfill it due to low capacity and infrastructure.

In addition, the industry believes it is able to increase by 52.5 per cent the total tonnes of products sold given market demand which is equivalent to an additional 3.4 million tonnes of compost and non-compost product sales each year. Based on the existing and additional potential sales capacity there is approximately 1.1 million tonnes of excess market demand available to achieve an Australian recycling rate of 70% but then the market transitions into insufficient demand

for organic recycling products to meet the 80 per cent (187,559 tonnes shortfall), 90 per cent (1,441,945 tonnes shortfall) and 95 per cent recycling rate (2,069,139 tonnes shortfall).

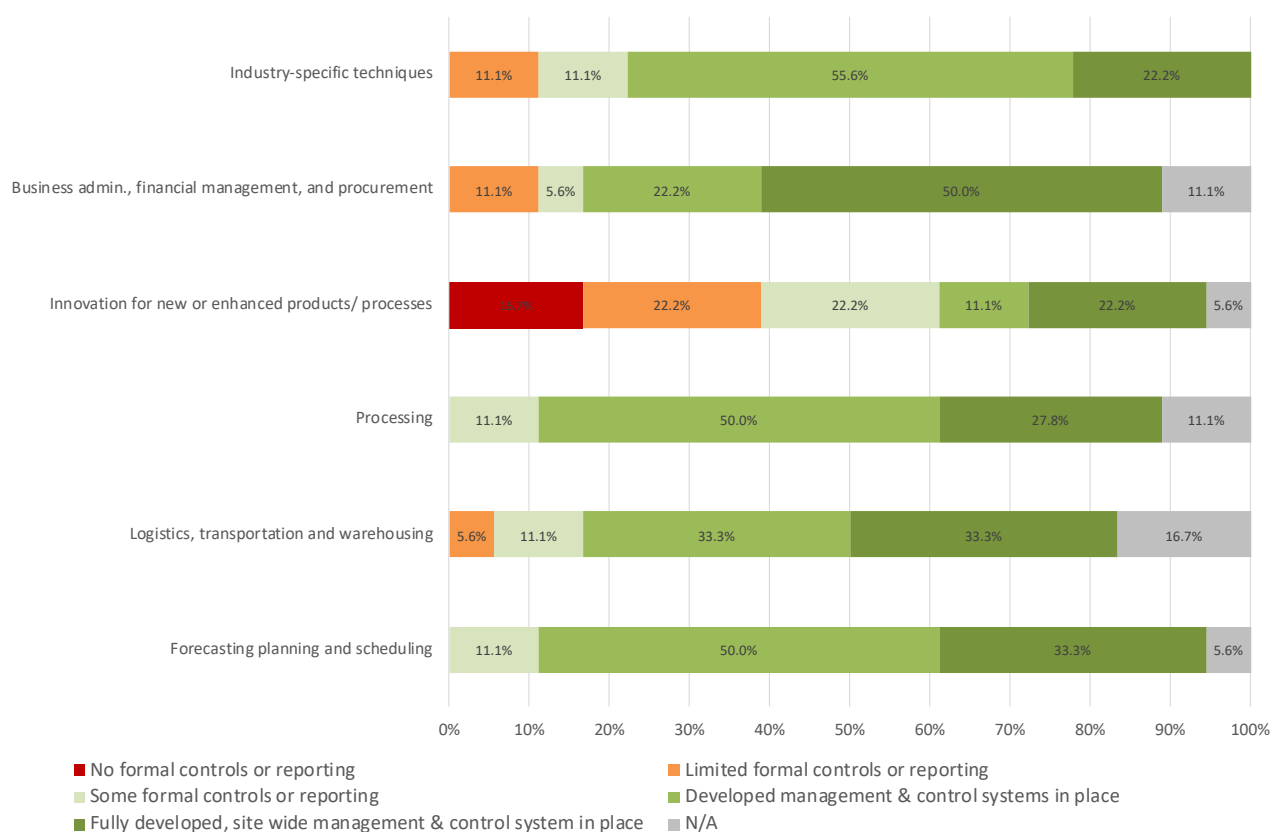
AEAS modelling indicates new market demand for organic recycled products will need to be established for Australia to meet the 80 per cent, 90 per cent and 95 per cent recycling rates.

In respect to industry capability (the skills, processes and knowledge to meet an increase in the processing of organic materials and the supply of recycled organic material products) there is considerable existing capability available to lift organic material recycling rates.

Operational issues such as access to technology, labour costs, logistics etc are considered to be very minor obstacles to growth at present and indicate that the Industry's constraints are less internal and more externally focused. For example based on the Survey the largest obstacles to the operation and growth of the industry at present include regulatory policy uncertainty; contamination of input material; government policy (eg waste and recycling strategy); business licensing and operating permits; development applications; government procurement supporting organic recycling products; and short council contract periods.

The report also confirms that organic recycling industry businesses are comfortable with managing growth. Organic recycling businesses have indicated relatively good growth in their business over the last three years and expectations are for further growth. Industry satisfaction with its performance appears quite good with three in four businesses indicating they are somewhat, mostly or very satisfied with their overall performance and other key performance indicators. The industry's current stage of development for a range of core business functions appears to be very mature indicating strong readiness to seize opportunities.

Figure 4: Industry Maturity



Source: AEAS

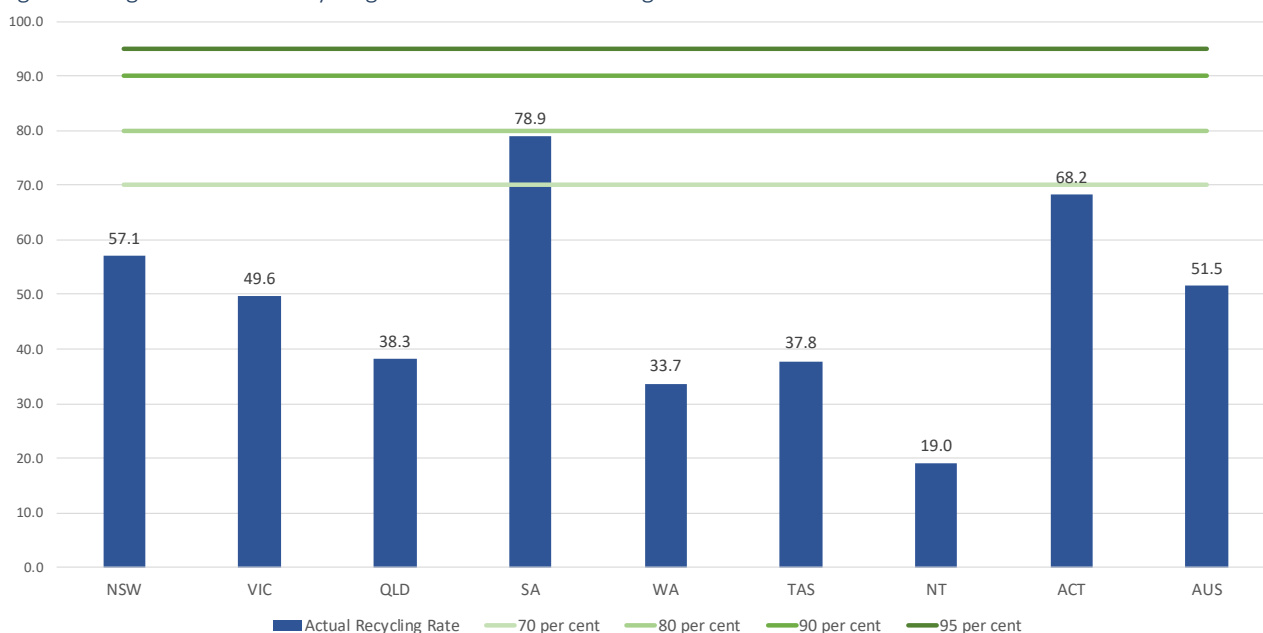
In summary the Industry is assessed as having good capability and supply capacity to deliver an improvement in Australia's organic material recycling rate. However, there will need to be end market development in some States to ensure buyers are available to realise the benefit of recycled organic material products.

This AEAS report provides analysis that is specific to the unique capabilities of the organics recycling industry by State and provides an understanding of industry capacity trends that will in turn act as a foundation of increased recycling, economic and environmental benefit through the further development of the Australian organics recycling industry. The report provides independent and robust assessment of the Industry's ability to step up as an economic, employment and environment provider of benefit.

2.0 Methodology

- 2.1 AEAS was commissioned by AORA (Australian Organics Recycling Association) to determine the existing and potential capacity and capability of the Australian Organics Recycling Industry (AORI) to meet an improvement in the Australia's organic material recycling rate. The report was developed in consultation with AORA and identifies a range of vital statistics that the Industry is able to provide in lifting Australia's organic material recycling rate.
- 2.2 AEAS as part of the report has analysed both the capacity and capability of the existing Australian Organic Recycling industry to both realise and activate an improvement in the organics recycling rate to 70 per cent, 80 per cent, 90 per cent and 95 per cent. Capacity is referred to as the physical resourcing and ability and capability is referred to the skills, processes and knowledge. This analysis is designed to assist AORA advocacy to implement policies across Australian states that lead to improved recycling of organic material.

Figure 5: Organic material recycling rates in 2018-19 and targets



Source: National Waste Report, AEAS

- 2.3 More specifically this report analyses the following:
- An overview of current recycling rates and tonnes processed and modelled tonnes needed to achieve a 70, 80, 90 and 95 percent recycling rate of organics material;
 - Profile the capabilities of existing organic recycling businesses by state including product / service range; expertise and skill levels and key areas of strengths and weaknesses, opportunities and threats within the organics recycling industry;
 - A quantitative estimation of current and future capacity (in tonnes) of the organic recycling industry by state including capacity for storage of materials and products;
 - Identification of soft and hard infrastructure required to underpin and potential gaps for future growth of the organics recycling sector; and
 - Quantitative analysis of emerging markets or current market gaps for an expanded industry.
- 2.4 The capacity and capability estimates in this report are produced using data primarily from an AORA Capability Survey 2020 (see appendix two); Australian Bureau of Statistics - Australian Industry (Cat. No. 8155.0); National waste report; and other Australian Bureau of Statistics data including Census data and ABS Catalogues 6202.0 and 5220.0.
- 2.5 Respondents to the survey processed 1.1 million tonnes of organic material each year representing 15.0 per cent of material processed in Australia each year. The survey was conducted across September and October 2020.
- 2.6 All estimates are presented in nominal terms (i.e. current prices in the year received), unless otherwise stated.

3.0 Benefits of Australian Organics Recycling Industry

In early 2020 AEAS, in its report 'The Economic Contribution of the Australian Organics Recycling Industry', modelled the economic and environment benefits of the Industry to Australia. A summary of these benefits is provided below. The AEAS Report is available at the AORA website (www.aora.org.au)

3.1 Benefits to the Economy

The AORI is an important contributor to the Australian economy. Results of a macro-economic analysis of the Industry reveal it is providing 4,845 jobs to Australian residents, paying over a \$366 million in wages and salaries; providing a livelihood to each employee within the industry of \$75,540; has a collective industry turnover of over \$2 billion; sourcing \$1.9 billion across its supply chain, investing \$175 million in land, buildings, plant and equipment and vehicles each year and contributing \$724 million in industry value add to the Australian economy. A summary of the State breakdown of AORI's economic contribution metrics is provided in table 4 below.

Table 4: Economic contribution by State in 2018-19 (\$ millions)

	Employment at end of June	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
NSW	1,778	134	748	691	64	84	266
VIC	960	73	404	373	35	45	144
QLD	720	54	303	280	26	34	108
SA	812	61	342	315	29	38	121
WA	311	23	131	121	11	15	46
TAS	72	5	30	28	3	3	11
NT	15	1	6	6	1	1	2
ACT	177	13	74	69	6	8	26
AUS	4,845	366	2,038	1,882	175	229	724

Source: AEAS

Table 5: Key Economic Benefits of the Australian Organics Recycling Industry

Direct Economic Benefit	Indirect Economic Benefit
<ul style="list-style-type: none"> 305 businesses operating; Providing 4,845 jobs to Australian residents, Pays over a \$366 million in wages and salaries and an additional \$35 million towards employee superannuation; Provides an average livelihood to each employee within the industry of \$75,540 which compares to Australian average weekly earnings of \$64,390; Has a collective industry turnover of over \$2 billion; Sources and provides \$1.9 billion in benefit across its supply chain; Invests \$175 million in land, buildings, plant and equipment and vehicles each year; and Contributes \$724 million in industry value add to the Australian economy. 	<ul style="list-style-type: none"> \$579 million in industry value add to GDP through flow-on demand for goods and services, including production induced and consumption induced effects; and 4,070 indirect jobs provided through flow on activity. <p>Other key economic statistics include:</p> <ul style="list-style-type: none"> One job is supported for every 1,550 tonnes of organic material recycled in Australia; The average sales per organics recycling business is \$6.7 million. Expressed alternatively total AORI turnover is estimated at \$271 per tonne of recycled organic material; and Supply chain expenditure is estimated at \$250 per tonne of recycled organic material.

Source: AEAS

3.2 Benefits to the Environment

Organics recycling reduces Greenhouse Gas (GHG) emissions primarily by decreasing the amount of energy, particularly fossil fuels, used by industry to make products compared with using virgin raw materials. It also reduces emissions of greenhouse gases by diverting recovered materials from landfills which biologically decompose in landfills and generate methane.

Australian organics recycling industry compost products in particular help the environment by:

- Building soil carbon in agricultural soils. One tonne of composted garden organics applied to land can sequester approximately 0.5 tonnes of CO₂e (equivalent);
- Creating healthy soils that use less water, less fertiliser and fewer pesticides whilst reducing nutrient leaching and protecting the aquatic environment;
- Supporting resilient farming systems producing healthy food and supporting Australia's food security; and
- Buffering the effects of climate change in agriculture by:
 - reducing water loss from soils (improving water use efficiency and reducing cropping risk)
 - protecting soils against wind and water erosion
 - reducing soil temperature fluctuations (increasing root growth and soil biology)
 - reduces synthetic fertilizer demand and carbon emissions from fertilizer manufacture and use

Mulch application suppresses weed growth and can save more than 30 per cent of irrigation water depending on conditions. The composting process destroys weed seeds and pathogens, helping to control the spread of weeds and diseases as well as managing biosecurity risks.

The AEAS Report concluded that the total estimated greenhouse gas savings from organics recycling of materials received in Australian in 2018-19 is approximately 3.8 million tonnes of CO₂-e. These GHG savings are considered approximately equivalent to:

- Approximately 5.7 million trees that would have to be planted to absorb the same amount of CO₂.
- The greenhouse gas emissions that 876,663 cars would produce in a year.

The environmental benefits by State are provided in table 6 below.

Table 6: Australian Organics Recycling Industry - Environmental Benefits Summary 2018-19

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
NSW	1,393,438	2,082,840	321,748
VIC	752,447	1,124,719	173,742
QLD	564,708	844,096	130,392
SA	636,229	951,003	146,907
WA	243,431	363,868	56,209
TAS	56,628	84,645	13,076
NT	11,290	16,876	2,607
ACT	138,516	207,046	31,984
AUS	3,796,686	5,675,093	876,663

Source: AEAS

4.0. Benefits of Increasing Organic Material Recycling

As impressive as the benefits listed in section 3 are, they represent only a fraction of what the Australian Organics Recycling Industry (AORI) is capable of achieving. AEAS as part of the 'Economic Contribution of the Australian Organics Recycling Industry' report modelled what the economic and environmental contribution of the Industry would be if the current organics recycling rates were increased under four different scenarios - to at least 70 per cent, 80 per cent, 90 per cent and 95 per cent. A summary of the economic and environmental benefits under each scenario are below.

4.1 70 per cent recycling rate

Under a 70 per cent recycling rate:

- Organics recycling businesses would generate an extra \$771 million in sales providing an additional \$712 million in supply chain opportunity with an extra \$274 million in industry value add towards the Australian economy;
- Organics recycling businesses would provide 1,834 extra jobs paying \$139 million in livelihood to everyday Australians; and
- An extra 1,436,829 tonnes of greenhouse gas emissions would be saved equivalent to 2,149,011 trees planted; and 332,279 cars taken off the road each year.

4.2 80 per cent recycling rate

Under a 80 per cent recycling rate:

- Organics recycling businesses would generate an extra \$1.1 billion in sales providing an additional \$1 billion in supply chain opportunity with an extra \$401 million in industry value add towards the Australian economy;
- Organics recycling businesses would provide 2,682 extra jobs paying \$203 million in livelihood to everyday Australians; and
- An extra 2,102,377 tonnes of greenhouse gas emissions would be saved which is equivalent to 23,144,006 trees planted; and 486,021 cars taken off the road each year.

4.3 90 per cent recycling rate

Under a 90 per cent recycling rate:

- Organics recycling businesses would generate an extra \$1.5 billion in sales providing an additional \$1.4 billion in supply chain opportunity with an extra \$542 million in industry value add towards the Australian economy;
- Organics recycling businesses would provide 3,624 extra jobs paying \$274 million in livelihood to everyday Australians; and
- An extra 2,839,760 tonnes of greenhouse gas emissions would be saved which is equivalent to 4,246,394 trees planted; and 656,356 cars taken off the road each year.

4.4 95 per cent recycling rate

Under a 95 per cent recycling rate:

- Organics recycling businesses would generate an extra \$1.7 billion in sales providing an additional \$1.6 billion in supply chain opportunity with an extra \$612 million in industry value add towards the Australian economy;
- Organics recycling businesses would provide 4,094 extra jobs paying \$309 million in livelihood to everyday Australians; and
- An extra 3,208,451 tonnes of greenhouse gas emissions would be saved which is equivalent to 4,797,587 trees planted; and 741,524 cars taken off the road each year.

A full break down of both the economic and environmental benefits under each of the modelled improvements in recycling rates are provided in tables 7 to 10.

Table 7: Economic Contribution – Australia (\$ millions)

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
No change	4,845	366	2,038	1,882	175	229	724
70%	6,679	505	2,809	2,595	241	315	999
80%	7,527	569	3,166	2,924	271	356	1,125
90%	8,469	640	3,562	3,290	305	400	1,266
95%	8,939	676	3,760	3,473	322	422	1,336

Source: AEAS

Table 8: Economic Gain – Australia (\$ millions)

	Employment at end of June (FTE)	Wages and salaries	Sales	Expenditure	Capital expenditure	Operating profit before tax	Industry value added
No change	-	-	-	-	-	-	-
70%	1,834	139	771	712	66	87	274
80%	2,682	203	1,128	1,042	97	127	401
90%	3,624	274	1,524	1,408	131	171	542
95%	4,094	309	1,722	1,590	148	193	612

Source: AEAS

Table 9: Environmental Contribution - Australia

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
No change	3,796,686	5,675,093	876,663
70%	5,233,515	7,824,104	1,208,942
80%	5,899,063	8,819,099	1,362,684
90%	6,636,446	9,921,487	1,533,019
95%	7,005,137	10,472,680	1,618,187

Source: AEAS

Table 10: Environmental Gain - Australia

	GHG emissions saved (tonnes)	Equivalent trees planted required for carbon absorption	Equivalent cars off the road each year
No change	-	-	-
70%	1,436,829	2,149,011	332,279
80%	2,102,377	3,144,006	486,021
90%	2,839,760	4,246,394	656,356
95%	3,208,451	4,797,587	741,524

Source: AEAS

5.0. The Required Task

The considerable economic and environmental benefit that AORI is capable of providing is contingent upon both the right policy settings and also industry's capacity and capability to take up the opportunity. AORA as part of its National Industry Policy to be released in early 2021 has identified the necessary policy initiatives that the three tiers of Government across all Australian States should implement to address identified obstacles (see figure 14) and maximise the likelihood of AORI benefits being realised as consequence of a strategic improvement in organic material recycling rates. However, better policy is only part of the equation and Industry also needs to be in a position to step up to increase both tonnes of organic material processed and sold. The required increase in both processing and sales is modelled below.

5.1 Tonnes Processed

Table 11 identifies the amount of organic material recycled to achieve the notional recycling rates. To achieve a 95 per cent recycling rate the industry would need to increase its processing capacity by 6.4 million tonnes (from its current 7.5 million tonnes to 13.9 million tonnes) or by 84.5% each year.

Table 11: Current and needed Organic Material Recycled (tonnes) to achieve Notional Recycling Rate

	Current	70%	80%	90%	95%
NSW	2,759,515	3,383,351	3,866,686	4,350,022	4,591,690
VIC	1,490,119	2,102,071	2,402,367	2,702,663	2,852,811
QLD	1,118,328	2,045,399	2,337,599	2,629,799	2,775,898
SA	1,259,966	1,117,707	1,277,380	1,437,052	1,516,888
WA	482,082	1,002,215	1,145,388	1,288,562	1,360,149
TAS	112,144	207,454	237,091	266,727	281,545
NT	22,358	82,185	93,926	105,667	111,537
ACT	274,311	281,627	321,860	362,092	382,208
AUS	7,518,824	10,222,009	11,682,296	13,142,583	13,872,727

Source: AEAS

Table 12 indicates the actual additional tonnes required to achieve the corresponding recycling rate. Generally, as the target recycling rate increases the number of additional tonnes of organic material recycled increases. Queensland has the greatest required task ahead of it and reflects the State's current low recycling rate of 38.3 per cent (see figure 5). Conversely South Australia has the least amount of increase in tonnes needing to be processed reflective of its already high recycling rate of 78.9 per cent.

Table 12: Increase in Organic Material Recycled (tonnes)

	Current	70%	80%	90%	95%
NSW	-	623,835	1,107,171	1,590,507	1,832,175
VIC	-	611,952	912,247	1,212,543	1,362,691
QLD	-	927,071	1,219,271	1,511,471	1,657,571
SA	-	-142,259	17,414	177,086	256,922
WA	-	520,133	663,307	806,480	878,067
TAS	-	95,310	124,947	154,583	169,401
NT	-	59,827	71,568	83,309	89,179
ACT	-	7,316	47,548	87,781	107,897
AUS	-	2,703,185	4,163,472	5,623,759	6,353,903

Source: AEAS

Table 13 provides the percentage increase in organic material processed to achieve the corresponding recycling rate. The highest percentage increases to achieve a 95 per cent recycling rate are for Queensland (148.2%) and Western Australia (182.15) and the smallest increases are for South Australia (20.4%) and the ACT (39.3%).

Table 13: Percentage increase in Organic Material Recycled (%)

	Current	70%	80%	90%	95%
NSW	-	22.6%	40.1%	57.6%	66.4%
VIC	-	41.1%	61.2%	81.4%	91.4%
QLD	-	82.9%	109.0%	135.2%	148.2%
SA	-	-11.3%	1.4%	14.1%	20.4%
WA	-	107.9%	137.6%	167.3%	182.1%
TAS	-	85.0%	111.4%	137.8%	151.1%
NT	-	267.6%	320.1%	372.6%	398.9%
ACT	-	2.7%	17.3%	32.0%	39.3%
AUS	-	36.0%	55.4%	74.8%	84.5%

Source: AEAS

5.2 Tonnes Sold

Not only is the realisation of the potential economic and environment benefits of improved recycling rates contingent upon the industry's capacity to lift its tonnes of recycled organic material processed but also its ability to sell its products to the market. Table 14 and 15 identify the increase in organic material needed to be sold to achieve the notional recycling rates. For example to achieve a 95 per cent recycling rate the industry would need to increase the amount of product sold by 5.5 million tonnes (from its current 6.5 million tonnes to 11.9 million tonnes).

Table 14: Current and needed tonnes of Organic Recycled Material Sold to achieve Notional Recycling Rate

	Current	70%	80%	90%	95%
NSW	2,370,424	2,906,298	3,321,484	3,736,669	3,944,262
VIC	1,280,013	1,805,679	2,063,633	2,321,587	2,450,564
QLD	960,643	1,756,998	2,007,997	2,258,997	2,384,497
SA	1,082,311	960,111	1,097,269	1,234,428	1,303,007
WA	414,108	860,902	983,888	1,106,875	1,168,368
TAS	96,332	178,203	203,661	229,118	241,847
NT	19,206	70,597	80,682	90,768	95,810
ACT	235,633	241,918	276,477	311,037	328,317
AUS	6,458,670	8,780,706	10,035,092	11,289,479	11,916,672

Source: AEAS

Table 15: Increase in Organic Material Recycled (tonnes)

	Current	70%	80%	90%	95%
NSW	-	535,874	951,060	1,366,245	1,573,838
VIC	-	525,666	783,621	1,041,575	1,170,552
QLD	-	796,354	1,047,354	1,298,354	1,423,853
SA	-	-122,200	14,958	152,117	220,696
WA	-	446,794	569,780	692,766	754,259
TAS	-	81,872	107,329	132,787	145,516
NT	-	51,392	61,477	71,562	76,605
ACT	-	6,284	40,844	75,404	92,683
AUS	-	2,322,036	3,576,423	4,830,809	5,458,003

Source: AEAS

6.0. Industry Capacity

Capacity is referred to as the physical ability of the Australian Organic Recycling Industry and its resources available to meet an increase in the processing of organic materials and the supply of recycled organic material products.

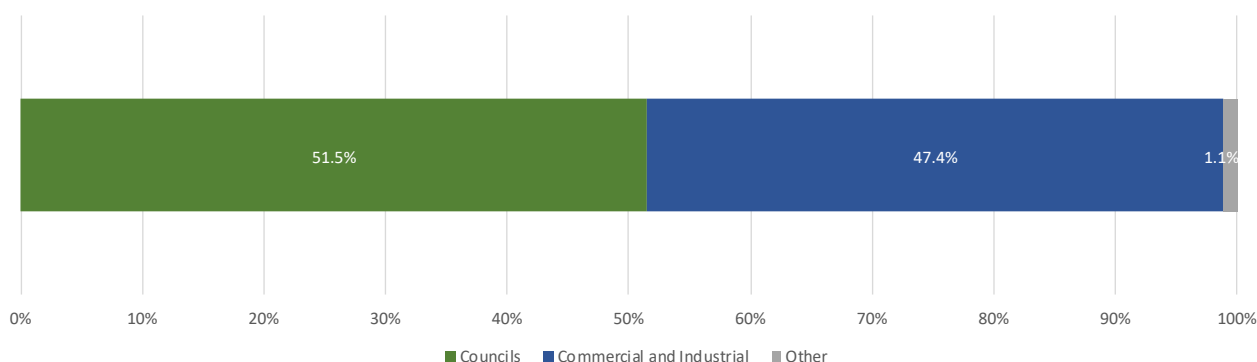
6.1 Tonnes Processed

Based on the AORA Organic Material Recycling Capability Survey 2020 (see Appendix two) there is considerable opportunity to increase the processing potential of the Industry based on underutilised capacity. The key findings from the survey are provided below.

6.1.1 Recycled organic material by Source

According to the AORA Capability Survey, 51.5 per cent of material was sourced from councils, 47.4 per cent from commercial contracts and 1.1 per cent from elsewhere (Construction and Demolition).

Figure 6: Percentage (%) breakdown of Industry's organic material by source in 2019-20



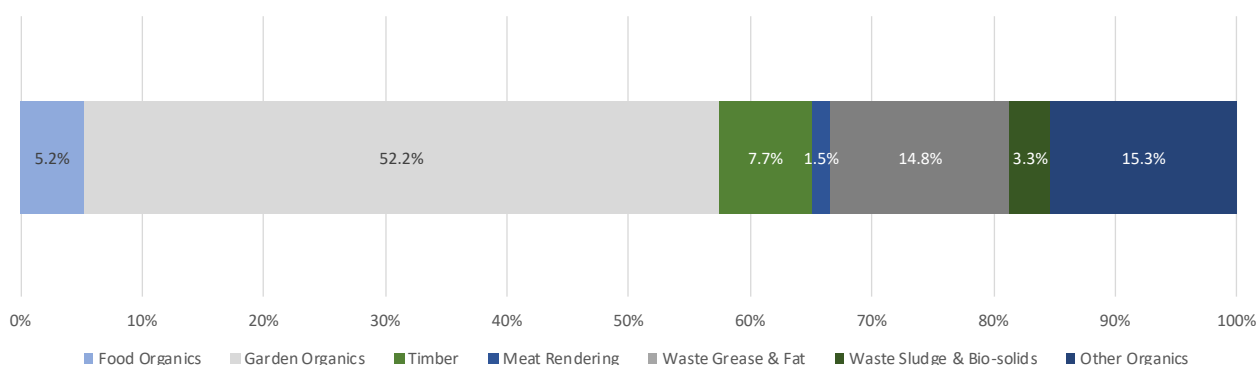
Source: AEAS

Council supply reflects residential supply from kerbside collection and transfer station drop-off, as well as other council waste (including parks and garden maintenance). **Commercial and industrial (C&I)** represents waste produced from businesses as a by-product of commercial activities. These include timber residuals, food organics and a range of processing by-products (for example, organic waste materials from abattoirs). **Construction and demolition (C&D)** represent waste products produced from C&D activities. Within the recycled organics industry, this waste stream is largely timber residuals – offcuts from construction or timber products from demolition.

6.1.2 Recycled organic material by Material

According to the AORA Capability Survey, 5.2 per cent was food organics, 52.2 per cent was garden organics, 7.7 per cent was timber, 1.5 per cent was meat render, 14.8 per cent was waste grease, 3.3 per cent was waste sludge and 15.3 per cent was other organics.

Figure 7: Percentage (%) breakdown of Industry's organic source in 2019-20



Source: AEAS

6.1.3 Key Survey Capacity Findings

The two key findings of the AORA Organic Material Recycling Capability Survey 2020 in respect to processing capacity included:

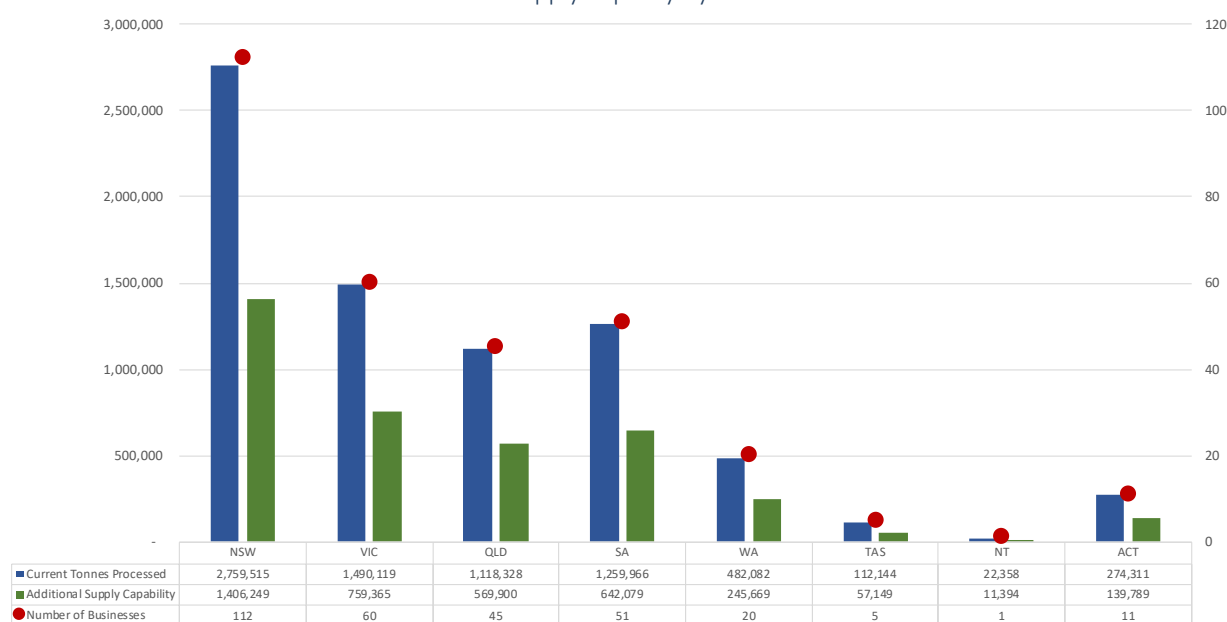
- Currently industry businesses on average occupy approximately 49.2 per cent of their operating site. If the business was no longer constrained by obstacles the business would occupy approximately 73.6 per cent of their operating site; and
- The industry is capable of processing an additional 51 per cent of organic materials given the physical capacity of their sites if unconstrained by obstacles.

This indicates that Industry businesses on average are capable of lifting the tonnes of organic material recycled in each of the States and Territories. Modelling of the potential lift in processing capacity is provided below.

6.1.4 Modelled Tonnes Processed Capability

There are currently 305 organic recycling businesses operating in Australia processing/recycling 7.5 million tonnes of organic material. Based on the current additional capacity of the industry these businesses are estimated to be able to provide an additional 3.8 million of collective processing capacity each year. The State and Territory breakdowns are provided in figure 8 below.

Figure 8: Current Tonnes Processed and Additional Supply Capacity by State



Source: AEAS

6.1.5 Modelled Surplus / Deficit against Needed Tonnes

Based on the existing and additional potential supply capacity of the Industry, there is 1.1 million tonnes of excess recycling capacity available to achieve an Australian recycling rate of 70% but then the industry nationally transitions into a deficit of recycling capacity to meet the 80 per cent (331,879 tonnes shortfall), 90 per cent (1,792,166 tonnes shortfall) and 95 per cent recycling rate (2,522,310 tonnes shortfall). This analysis however changes by State.

Table 16: Additional Potential Processing Capacity and Surplus / Deficit against Needed Tonnes

	Additional Supply Capacity	70%	80%	90%	95%
NSW	1,406,249	782,414	299,078	-184,258	-425,926
VIC	759,365	147,413	-152,882	-453,178	-603,326
QLD	569,900	-357,171	-649,371	-941,571	-1,087,671
SA	642,079	784,338	624,665	464,993	385,157
WA	245,669	-274,464	-417,638	-560,811	-632,398
TAS	57,149	-38,161	-67,798	-97,434	-112,252
NT	11,394	-48,433	-60,174	-71,915	-77,785
ACT	139,789	132,473	92,241	52,008	31,892
AUS	3,831,593	1,128,408	-331,879	-1,792,166	-2,522,310

Source: AEAS

Table 17: Tonnes Processed Percentage Surplus / Deficit against Needed Amount

	Current	70%	80%	90%	95%
NSW	-	23.1%	7.7%	-4.2%	-9.3%
VIC	-	7.0%	-6.4%	-16.8%	-21.1%
QLD	-	-17.5%	-27.8%	-35.8%	-39.2%
SA	-	70.2%	48.9%	32.4%	25.4%
WA	-	-27.4%	-36.5%	-43.5%	-46.5%
TAS	-	-18.4%	-28.6%	-36.5%	-39.9%
NT	-	-58.9%	-64.1%	-68.1%	-69.7%
ACT	-	47.0%	28.7%	14.4%	8.3%
AUS	-	11.0%	-2.8%	-13.6%	-18.2%

Source: AEAS

Table 13 confirms that the overall national industry is required to process an additional 55.4 per cent of organic materials to achieve an 80 per cent recycling rate and an additional 84.5 per cent of organic material to achieve a 95 per cent recycling rate. Matched against this, the current industry believes it is capable of achieving a 51 per cent increase.

Very importantly Tables 16 and 17 infer both growth for the existing industry and room for new industry businesses. Based on modelling only South Australia and the ACT are capable of meeting needed capacity. NSW is capable of meeting required capacity for an 80 per cent recycling rate but is not positioned to meet either a 90 per cent or 95 per cent recycling rate.

All other States and Territories have shortfalls for meeting required capacity for 80 per cent, 90 per cent and 95 per cent recycling rates. AEAS in Table 18 has traffic lighted each state and its ability to meet the corresponding recycling rate.

Table 18: Tonnes Processed Capacity Assessment

	70%	80%	90%	95%
NSW	Capacity is sufficient to meet target	Capacity is sufficient to meet target	Capacity is just short of target	Capacity is insufficient to meet target
VIC	Capacity is sufficient to meet target	Capacity is just short of target	Capacity is insufficient to meet target	Capacity is insufficient to meet target
QLD	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target
SA	Capacity is sufficient to meet target	Capacity is sufficient to meet target	Capacity is sufficient to meet target	Capacity is sufficient to meet target
WA	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target
TAS	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target
NT	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target	Capacity is insufficient to meet target
ACT	Capacity is sufficient to meet target	Capacity is sufficient to meet target	Capacity is sufficient to meet target	Capacity is sufficient to meet target
AUS	Capacity is sufficient to meet target	Capacity is just short of target	Capacity is insufficient to meet target	Capacity is insufficient to meet target

Source: AEAS

Legend

Capacity is sufficient to meet target

Capacity is just short of target

Capacity is insufficient to meet target

On the basis of the above there will be a requirement to promote new industry participants once existing capacity is exhausted. This will particularly be the case for organic material recycling in most rural and regional areas to which there is little to no way to deal with organic waste but to landfill it due to low capacity and infrastructure.

Where there is currently insufficient scale to warrant recycling businesses operating there may now be the scale created under the 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling targets to warrant doing so. Naturally, this opportunity will largely be in regional areas and will divert organic materials away from landfill. The nature of this growth will depend upon localised market demand and supply.

6.2 Tonnes Capable of Being Sold

The nature of the organics recycling industry is best described though figure 1 where potentially organic recyclable material is processed, turned into compostable or non-compostable products and in turn sold to end users. Accordingly, there need to also be assessment of product demand. Based on the AORA Organic Material Recycling Capability Survey 2020 (see appendix two) there is considerable opportunity to increase the amount of product tonnes sold by the Industry.

6.2.1 Recycled organics products

A range of recycled organics products are currently produced including:

- **Uncomposted mulch products:** these are essentially 'raw' products including mulch for application on top of garden beds, and potting mix which is bagged for retail sale. They typically do not contain garden organics products (although some uncomposted garden organics 'mulch' is sold as a budget product).
- **Compost products:** the composting process produces recycled organic compost of different 'grades' that correspond to product maturity. Pasteurised products have completed the pasteurisation process but are not stable nor mature; in contrast, compost is relatively stable in addition to being pasteurised, and 'mature compost' is fully stable. A range of products are then produced from compost products which are essentially variants of compost, reflecting age and expected use.

In 2019-20 a breakdown of products produced were composted mulches 11.2 per cent; composted soil conditioners 40.1 per cent; pasteurised mulch soil conditioners 10.7 per cent; raw mulch 2.4 per cent; potting mix 1.9 per cent; and soil and soil blends 33.7 per cent.

Figure 9: Percentage (%) breakdown of products produced in 2019-20



Source: AEAS

Compost has different uses for various segments of the market. The purpose for which the compost product will be purchased can generally be categorised in four areas of:

- Mulching (for water conservation and weed control);
- Soil conditioning (to improve soil structure and water holding capacity);
- Fertilising (to increase levels of nitrogen, phosphorus and potassium and micronutrients); and
- Other(including carbon storage and disease suppression).

In 2019-20 a breakdown of Industry products sold were composted mulches 5.8 per cent; composted soil conditioners 41.9 per cent; pasteurised mulch soil conditioners 12.9 per cent; raw mulch 2.1 per cent; potting mix 1.9 per cent; and soil and soil blends 35.3 per cent.

Figure 10: Percentages (%) breakdown of Sales by Product in 2019-20



Source: AEAS

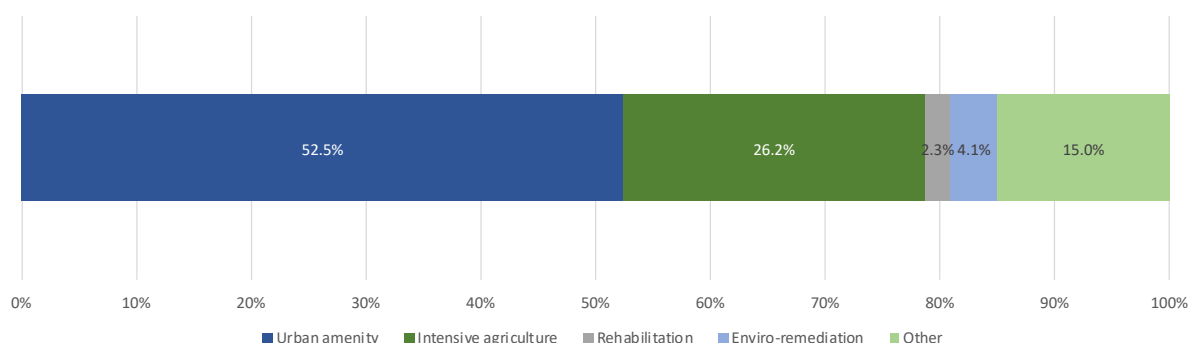
6.2.2 Recycled organics Market Segments

Products are typically used in four industry market segments including:

- **Urban amenity:** for use in urban areas including residential and commercial landscaping, retail nursery, special projects (such as highway verges).
- **Intensive agriculture:** agricultural use including viticulture, vegetable production, fruit and orchards, turf production, nursery production and wholesaling and **extensive agriculture:** agricultural use including pasture production (livestock including sheep, beef and dairy), broadacre cropping and forestry.
- **Rehabilitation:** use for landfill cover and rehabilitation, erosion stabilisation, land reclamation, restoration, revegetation and rectification.
- **Environmental remediation:** contaminated site and soils remediation, water purification and biofiltration uses.

In 2019-20 Industry product sales were sold to the following market categories: Urban amenity 52.5 per cent; Intensive agriculture 26.2 per cent; Rehabilitation 2.3 per cent; Enviro-remediation 4.1 per cent; and other 15.0 per cent.

Figure 11: Percentage (%) of product sales by market categories 2019-20



Source: AEAS

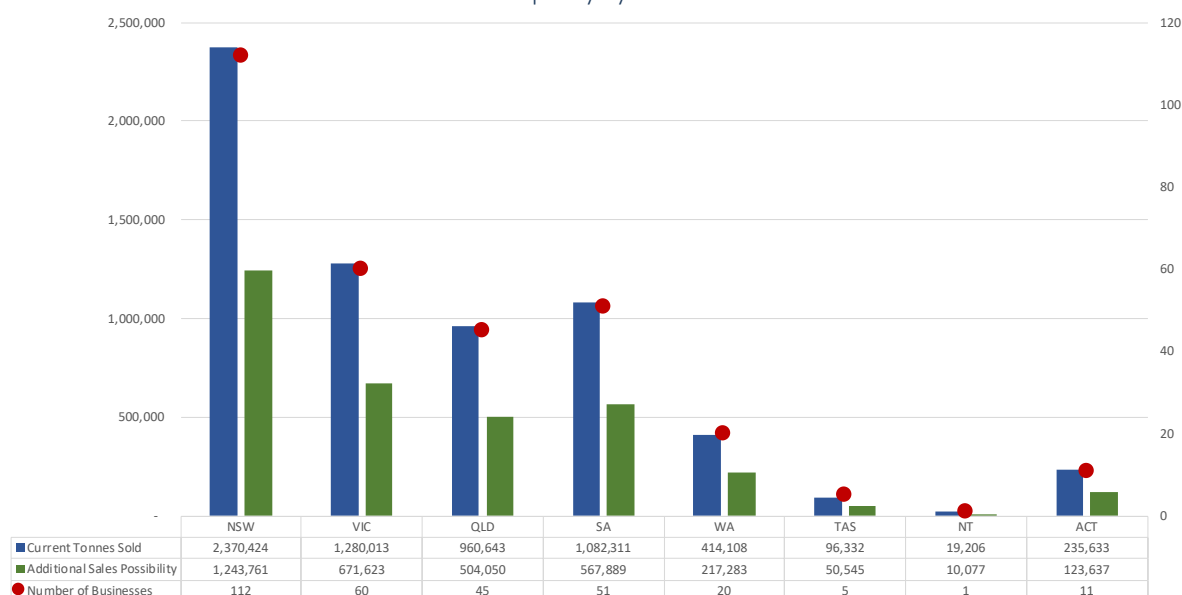
6.2.3 Key Survey Sales Capacity Findings

The key finding from the AORA Organic Material Recycling Capability Survey 2020 is that the Industry believes it is largely unconstrained by current market demand for its product. The Industry forecasts it is able to increase by 52.5 per cent the total tonnes of products realistically sold given their physical capacity of their operations and unconstrained by obstacles.

6.2.4 Modelled Tonnes Processed Capability

There are currently 305 organic recycling businesses operating in Australia selling approximately 6.5 million tonnes of organic products. Based on the current additional capacity of the industry these businesses are estimated to be able to sell an additional 3.4 million tonnes of mulch and compost products each year. The State and Territory breakdown are provided in figure 12 below.

Figure 12: Current Tonnes Sold and Additional Sales Capacity by State



Source: AEAS

6.2.5 Modelled Surplus / Deficit against Needed Tonnes

Based on the existing and additional potential sales capacity of the Industry there is approximately 1.1 million tonnes of excess market demand available to achieve an Australian recycling rate of 70% but then the current market nationally transitions into insufficient demand for organic recycling products to meet the 80 per cent (187,559 tonnes shortfall), 90 per cent (1,441,945 tonnes shortfall) and 95 per cent recycling rate (2,069,139 tonnes shortfall).

Table 19: Additional Potential Sales Needed and Surplus / Deficit against Needed Tonnes

	Additional Sales Capacity	70%	80%	90%	95%
NSW	1,243,761	707,887	292,701	-122,484	-330,077
VIC	671,623	145,957	-111,998	-369,952	-498,929
QLD	504,050	-292,304	-543,304	-794,304	-919,803
SA	567,889	690,089	552,931	415,772	347,193
WA	217,283	-229,511	-352,497	-475,483	-536,976
TAS	50,545	-31,327	-56,784	-82,242	-94,971
NT	10,077	-41,315	-51,400	-61,485	-66,528
ACT	123,637	117,353	82,793	48,233	30,954
AUS	3,388,864	1,066,828	-187,559	-1,441,945	-2,069,139

Source: AEAS

AEAS modelling indicates new market demand for organic recycled products will need to be established for Australia to meet the 80 per cent, 90 per cent and 95 per cent recycling rates.

Based on modelling only South Australia and the ACT have sufficient market demand to increase production to be able to achieve 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling rates. NSW has sufficient market demand for an 80 per cent recycling rate but insufficient market demand to meet a 90 per cent or 95 per cent recycling rate. It is notable that market development in each jurisdiction has kept pace with the supply capacity in that jurisdiction.

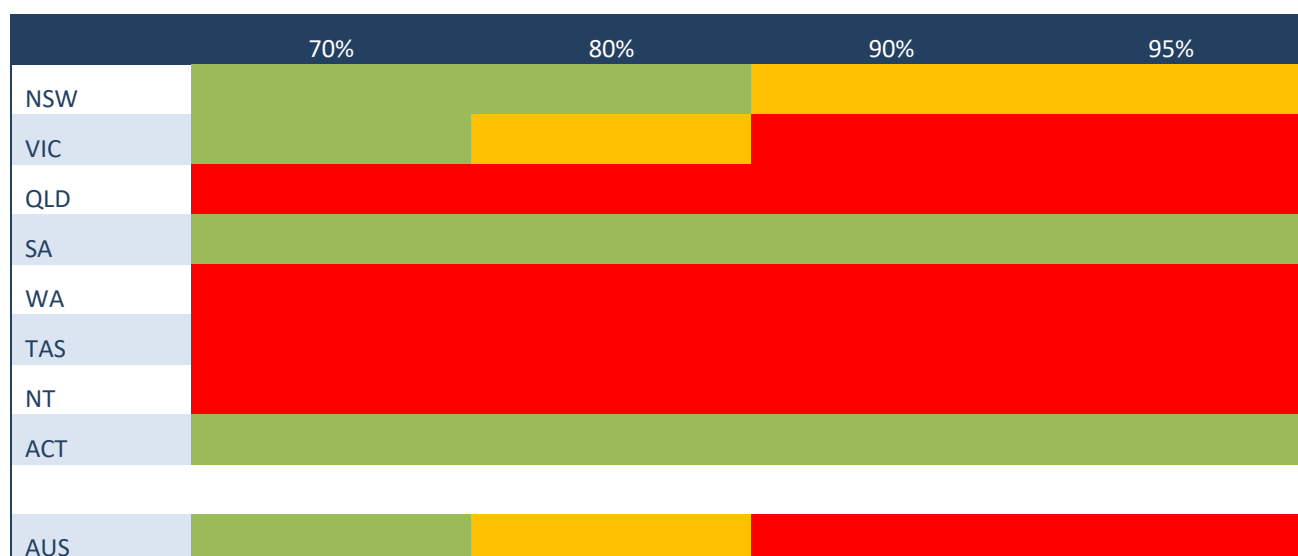
Table 20: Tonnes Sold Percentage Surplus / Deficit against Needed Amount

	Current	70%	80%	90%	95%
NSW	-	24.4%	8.8%	-3.3%	-8.4%
VIC	-	8.1%	-5.4%	-15.9%	-20.4%
QLD	-	-16.6%	-27.1%	-35.2%	-38.6%
SA	-	71.9%	50.4%	33.7%	26.6%
WA	-	-26.7%	-35.8%	-43.0%	-46.0%
TAS	-	-17.6%	-27.9%	-35.9%	-39.3%
NT	-	-58.5%	-63.7%	-67.7%	-69.4%
ACT	-	48.5%	29.9%	15.5%	9.4%
AUS	-	12.1%	-1.9%	-12.8%	-17.4%

Source: AEAS

All other States and Territories have shortfalls in market demand for meeting required sales for 80 per cent, 90 per cent and 95 per cent recycling rates. AEAS in Table 21 has traffic lighted each state and their ability to meet the corresponding recycling rate through mature markets to purchase organic recycled products.

Table 21 : Tonnes Sold Capacity Assessment



Source: AEAS

Legend

Demand is sufficient to meet target

Demand is just short of target

Demand is insufficient to meet target

In summary, the above analysis confirms that the supply of the organics recycling industry's products such as composts and mulches does not always meet current demand. Despite the strong performance of the industry in many states, there remains an untapped supply of feedstock and unmet demand for the quality products of organics recycling. Vitally, this demand for the industry's products is domestic, and usually local to the production process.

However, the analysis also confirms that without market development there will be occasions of a glut in the supply of recycled organic products. On this basis there will be requirement to promote the benefits of utilising organic recycled products and the benefits they provide as detailed on page 11.

In short, if any one of the below elements (see figure 13) are out of equilibrium it will have the potential to undermine the ability of Australia to achieve a higher recycling rate.

Figure 13: Organic Market Equilibrium

Market 1 –
Waste removal and processing

Market 2 –
Mulch and Compost product



Source: AEAS

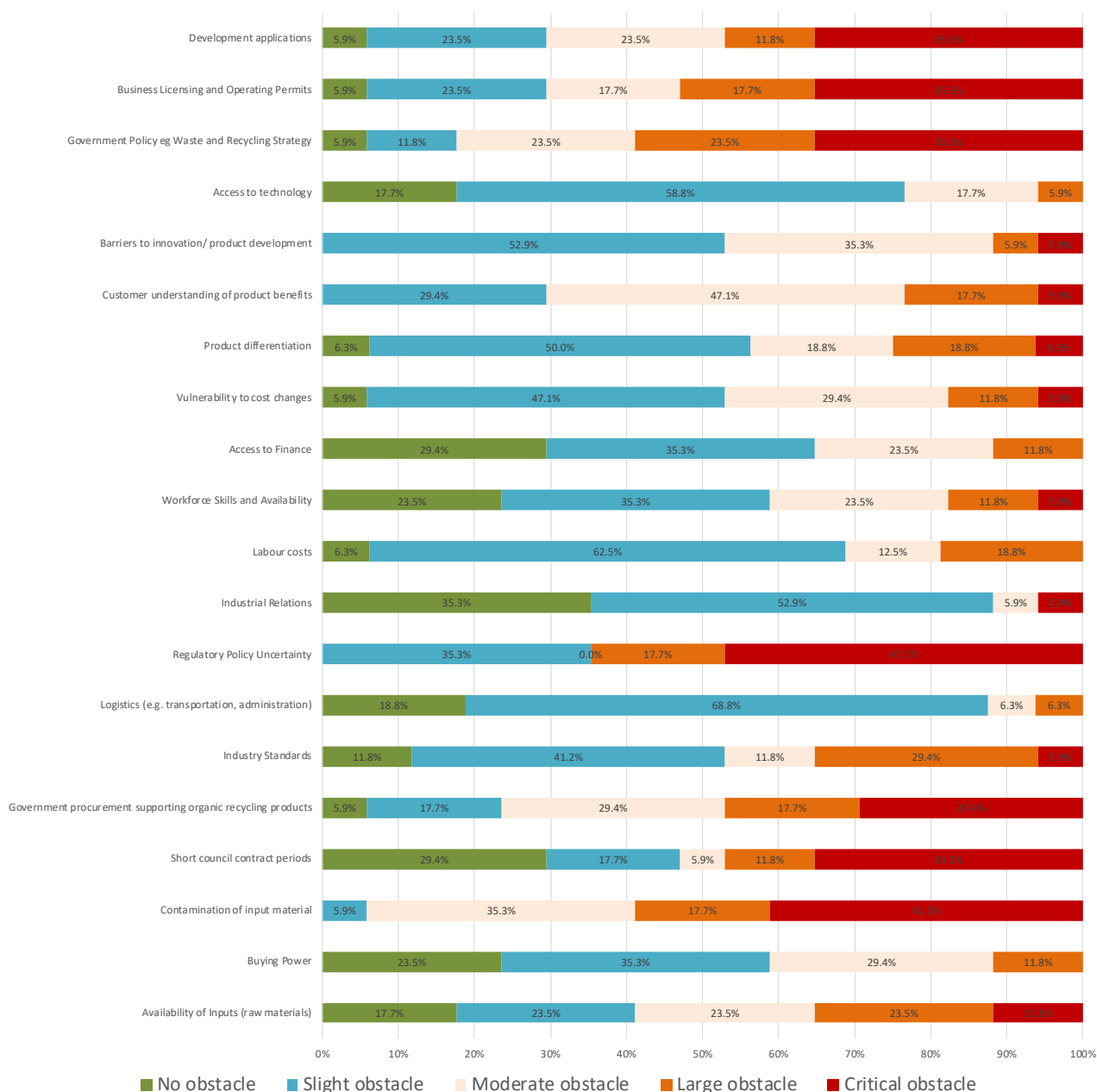
7.0. Industry Capability

Capability is the skills, processes and knowledge of the Australian Organic Recycling Industry to meet an increase in the processing of organic materials and the supply of recycled organic material products. Based on the AORA Organic Material Recycling Capability Survey 2020 (see appendix two) there is considerable existing capability available to lift the organic material recycling rate. The key findings from the survey in respect to capability are provided below.

7.1 Obstacles to Growth

Of profound importance, operational issues such as access to technology, labour costs, logistics etc are considered to be very minor obstacles to growth at present and indicate that the industry's constraints are less internal and more externally driven. For example, based on the Survey the largest obstacles to the operation and growth of the industry at present include regulatory policy uncertainty; contamination of input material; government policy (eg waste and recycling strategy); business licensing and operating permits; development applications; government procurement supporting organic recycling products; and short council contract periods.

Figure 14: Industry Obstacles to Growth



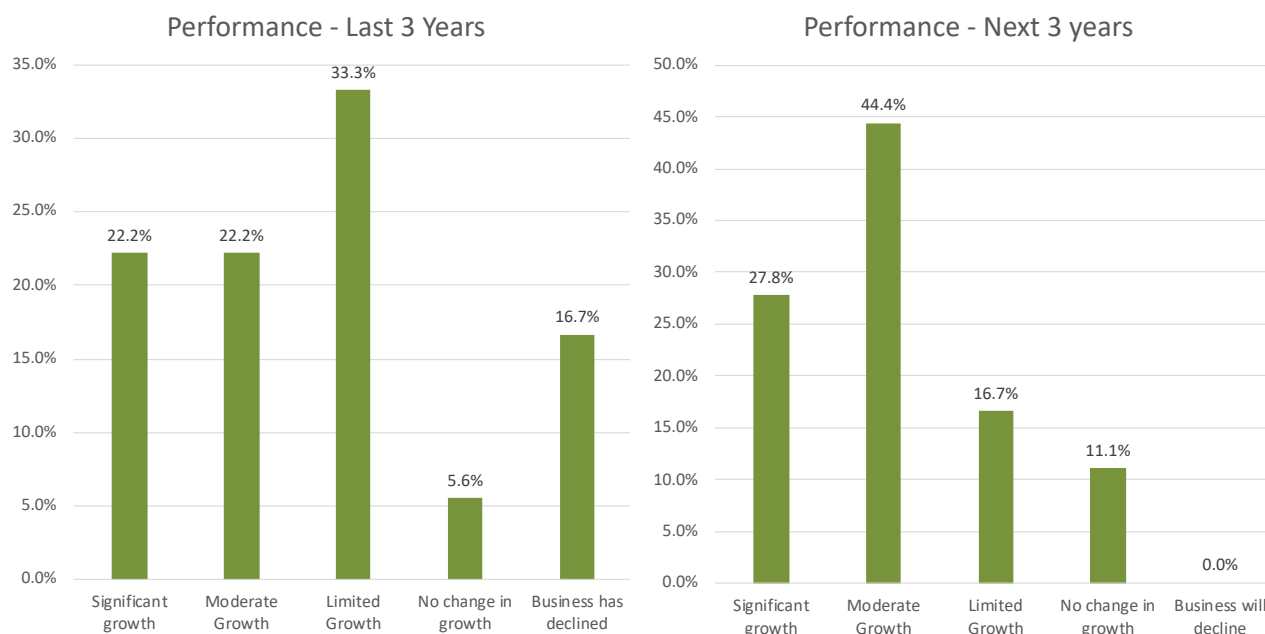
Source: AEAS

This illustrates that the industry's own or internal capability constraints to growth are relatively minor and do not impede the ability to realise the 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling rates in tandem to the supply capacity as analysed in section 6.

7.2 Business Performance

The survey also confirms that the AORI businesses are familiar with managing growth. Organic recycling businesses have indicated relatively good growth in their business over the last three years which are in line with headline statistics for the amount of organic recycling material being processed (see figure 15). For example, across the decade the Australian recycling industry's recycled material has on average grown by 3.4 per cent each year.

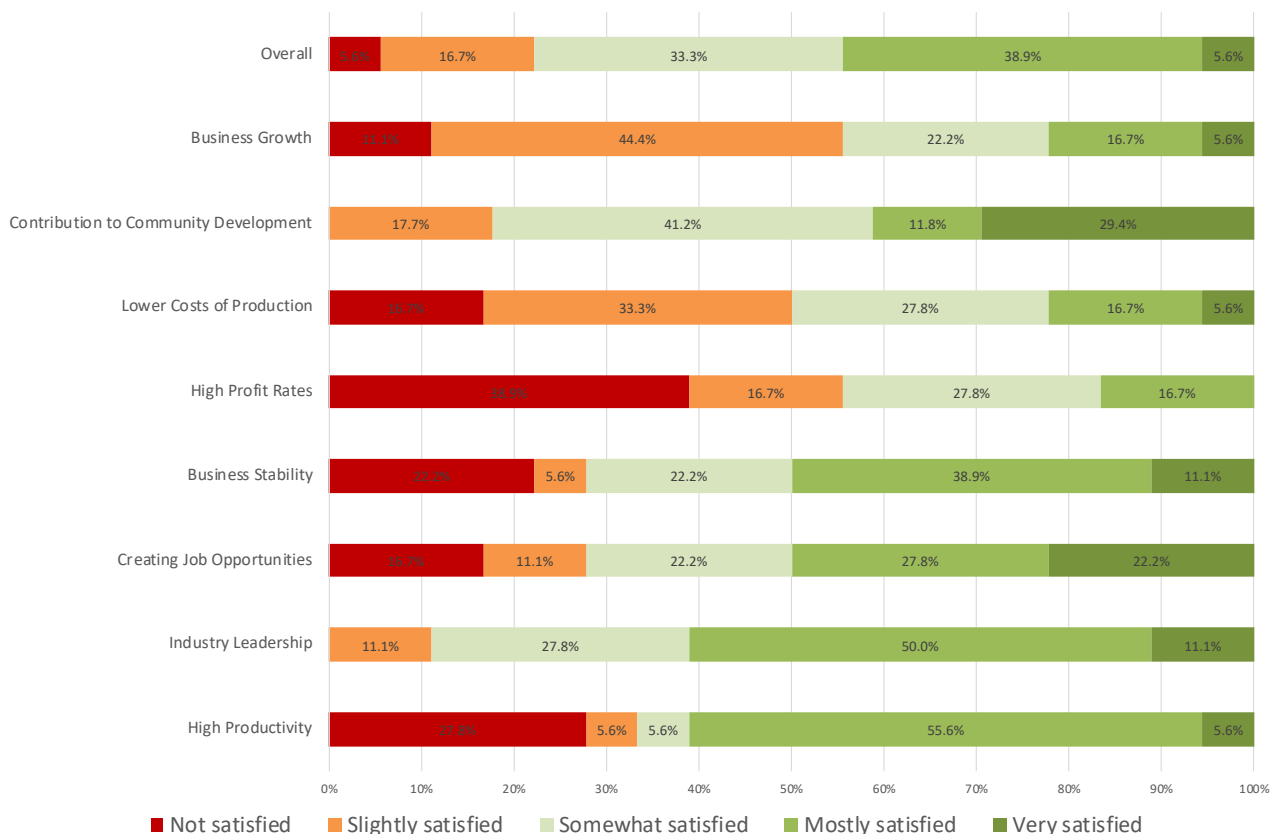
Figure 15: Industry Performance – Last 3 years and Next 3 years



Source: AEAS

One of the key prerequisites for the industry increasing its processing and supply is the ability to manage the growth necessary for the realisation of the 70 per cent, 80 per cent, 90 per cent and 95 per cent recycling rates. The major of industry businesses (three in four businesses) are anticipating moderate to significant growth over the next three years.

Figure 16: Industry Satisfaction with Business Performance Indicators



Source: AEAS

Furthermore, industry satisfaction with its performance appears quite good with three in four businesses indicating they are somewhat, mostly or very satisfied with their overall performance. There is strong satisfaction with key areas such a leadership, stability and productivity. This confirms that the industry, with respect to its key performance indicators, is well positioned to lift capacity.

Table 22: Industry Satisfaction with Business Performance Indicators

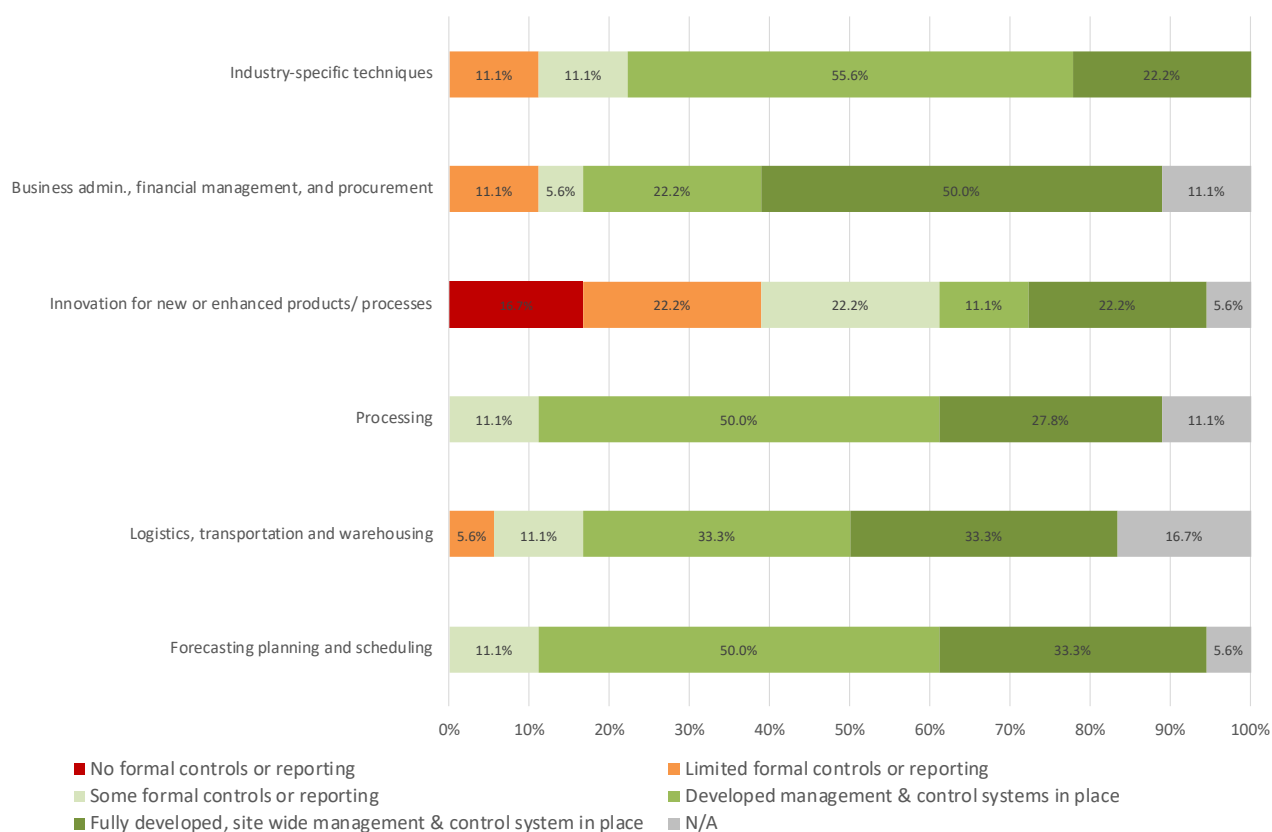
The three best areas are:	Three areas of improvement are:
<ul style="list-style-type: none"> • Industry leadership; • Business stability; and • High productivity 	<ul style="list-style-type: none"> • Profitability; • Cost of production; and • Opportunity for growth

Source: AEAS

7.3 Industry Maturity

The industry's current stage of development for a range of business functions generally appears to be very mature indicating strong readiness to seize opportunities. AORI is assessed to have excellent capability in the areas of industry specific techniques; business administration, financial management and procurement; processing; transport and logistics; and planning. The one area where there appears to be room for improvement is with innovation for new or enhanced products and processes.

Figure 17: Industry Capability Maturity



7.4 Overall Capability Assessment

In respect to AORI capability, namely the skills, processes and knowledge to meet an increase in the processing of organic materials and the supply of recycled organic material products, there is assessed to be good to excellent existing capability available to lift organic material recycling rates.

Appendix One: AORA National Industry Policy Document Recommendations

The AORA National Industry Policy will outline a 10-year roadmap for the Australian Organics Recycling Industry (AORI) – a roadmap designed to take the industry from a solid existing base to recognition as a world leader in the recycling and reuse of organics waste streams, for its innovative and efficient processing into desirable products, and for the relevance, quality, and economic and environmental value of these products. This document is AORA’s 10-year national vision for the recycled organics industry. It targets significant improvements and growth for a sector which is already delivering well.

The Inputs: Turning Australia’s Organics Waste into a National Resource

4.1 Government policy, legislation and regulations governing organics waste collection and supply to processors should be aligned to national and state strategic objectives for waste reduction

4.2 Government policy, legislation and regulations in this space should be nationally standardised and consistent to the full extent possible.

4.3 Each jurisdiction must develop plans to show how its collection systems will ramp up to collect at least 80% of organics for recycling by 2025 and 95% by 2030 and publish annual performance audits against those plans.

4.4 In the absence of successful outcomes in any jurisdiction from 4.3 above, a ban of unprocessed organics to landfill should be implemented in that jurisdiction.

4.5 Each jurisdiction must be responsible for guaranteeing its collection infrastructure delivers feedstock free of contaminants for recycling.

4.6 Each jurisdiction must ensure the delivery of feedstock to processors on economic terms which are realistic, and on contracts of sufficient length to provide certainty for investment and employment by processors.

4.7 Each jurisdiction must design and deliver a broad based and ongoing community education program to teach and encourage sorting at source of waste streams.

4.8 The community education programs should include clear guidance on what is acceptable in organics waste streams (such as certified compostable packaging) and what is not.

4.9 Waste levies should be standardised nationally to the fullest extent possible, and the funds directed towards those areas delivering the greatest benefits in waste reduction and recycling.

4.10 Following the substantive delivery of the community education programs, each jurisdiction should implement a well policed and consistently applied system of fines for residents and businesses which contaminate the organic waste collection system.

4.11 All governments, through COAG, should urgently implement a ban on all single-use plastics which are not recyclable, reusable or compostable.

4.12 The Federal Government, through COAG, should create a single point of testing and approval of new compostable packaging products, in conjunction with the industry.

Collaboration and Growth

5.1 Government policy, legislation and regulations governing organics industry processors should be aligned to national and state strategic objectives for waste reduction.

5.2 Each jurisdiction must be responsible for ensuring its approvals guarantee industry capacity to deliver to the national and state objectives by creating an environment for long term certainty around investment and employment.

- 5.3 Each jurisdiction should recognise recycling facilities as a critical industry requiring clear planning pathways, designated precincts and protected buffer zones.
- 5.4 Each jurisdiction should ensure that recycling operator requirements are included in state infrastructure plans and funded to ensure processing capacity is available to meet expected future demand.
- 5.5 All government decisions must take place with a clear triple bottom line understanding of their costs and benefits, and a genuine appreciation of the economics of the industry.
- 5.6 All state and territory government should mandate, and require local governments to support, zoning and approvals allowing for organics processing facilities within a maximum 90 minute travel radius of all significant population centres.
- 5.7 Such zonings and approvals must recognise that organics recycling is growing at a rate faster than population growth, and new facilities need to be approved to match this.
- 5.8 An ongoing funding stream equivalent to \$12 million per annum nationally should be provided for the purpose of industry capacity development, to ensure that innovative and effective practices form the core of industry leadership going forward.
- 5.9 All governments, through a COAG process, should work with AORA to deliver a national set of minimum quality standards to be delivered by all organics recycling processors.
- 5.10 A COAG-based process, in partnership with the industry, should oversee and monitor activity on an ongoing basis to define and encourage best practice.

The Outputs: Quality Products Improving Australia's Soils

- 6.1 Government policy, legislation and regulations governing organics recycling industry products should be aligned to be nationally consistent.
- 6.2 The National Soil Improvement Strategy and Drought Mitigation Strategy should incorporate a long-term component of government funding for subsidised or free soil conditioners for those primary producers most likely to benefit from them, but unable to afford the cost.
- 6.3 Government procurement standards and practices should be aligned to ensure the purchase of quality soil conditioners meeting the Australian Standard.
- 6.4 All governments, through a COAG coordinated process, should work with the industry to deliver a broader end user understanding and acceptance of the Australian Standard (AS4454) as a minimum requirement for all composts intended for unrestricted use.
- 6.5 The Federal Government should fund and collaborate with the industry to develop and deliver an industry-led product certification system, beyond the Australian Standard, to provide greater clarity to end users on the value and limitation of different products.
- 6.6 An ongoing funding stream equivalent to \$8 million per annum nationally should be provided for the purpose of industry product development, research, seminars and workshops, to ensure that the industry innovates its product lines to deliver to the requirements of its major end user groups, especially in the agriculture industry.

Appendix Two: AORA Organic Material Recycling Capability Survey 2020

The survey was conducted electronically across the period of September and October 2020. Respondents to the survey processed 1.1 million tonnes of organic material each year representing 15.0 per cent of material processed in Australia each year.



Organic Recycling Capability Survey 2020

Each year the organics recycling industry is processing 7.5 million tonnes of waste to produce valuable product for further use across the Australian economy.

In doing so the Australian Organics Recycling Industry is providing a considerable contribution to Australian economy enabling over 4,845 jobs, \$366 million in wages, \$1.9 billion in supply chain opportunities and \$724 million in industry value add. In tandem to this fantastic contribution the industry is also activating considerable environmental benefits.

Australian Organics Recycling Association (AORA) modelling has confirmed as impressive as this contribution is, it is only a fraction what could be achieved if Governments across Australia were able to lift the recycling rate of organic material.

However this potential and considerable benefit is not only contingent upon the right policy settings but also industry's capacity to take up the opportunity. For example to achieve a 95 per cent recycling rate the industry would need to increase its processing capacity by 6.4 million tonnes each year.

Accordingly AORA has commissioned this survey to ascertain the organic recycling industry's existing and potential capacity. This survey will help establish the industry's ability to step up as an economic, employment and environment provider of benefit.

All survey returns are strictly confidential and results will only be produced in aggregate for the Industry. AEAS (who has been contracted to deliver the survey) will not share any individual response with any external party including AORA itself.

Please take a few moments to complete the survey by **COB Friday 9 October 2020**. If you have any questions about the survey please contact Peter Olah on 0458 404 898 or Nick Behrens on 0448 034

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AEAS Business Information

Australian Economic Advocacy Solutions delivers services in economic analysis, research and advocacy in Australia and was set up by Nick Behrens following two decades of experience applying these skills in the real world for Australia's business community. More specifically AEAS provides:

- Economic Analysis and Market Research;
- Government Relations and Submissions;
- Media Relations; and
- Stakeholder Relations

AEAS delivers services nationally to exemplary organisations including Suncorp, Brisbane Airport Corporation, the Property Council of Australia, the Queensland Resources Council, Queensland Investment Corporation, Master Builders Australia, AI Group, CCIQ, Waste Recycling Industry Queensland, RACQ, VTA, HPC Urban, the Commonwealth and State Governments and many others.

AEAS can be engaged for either a special project (for the entire project or just the parts our clients need help with) or on an ongoing basis. We will take the time to understand your unique challenge and create a partnership with you to tailor a solution specific to your budget. We engage with confidentiality and integrity. Choose AEAS for our expertise, professionalism and ability to work with our valued clients to achieve exceptional results.

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Professional Bio: Nick Behrens

Across his professional career Nick has realised many outstanding outcomes to complex challenges for the business community. He possesses significant experience in gathering and presenting information, and leveraging that information to achieve results across a range of economic areas including taxation, regulatory environment, workers compensation, employment legislation, migration, infrastructure and planning issues.

Nick's representations are based on extensive research and his preferred approach to advocacy has always been to achieve results rather than headlines by working with stakeholders behind the scenes to secure positive and lasting outcomes. He places much emphasis on having a thorough and convincing evidence that is readily understood and in turn leads to real world solutions. As Director of Australian Economic Advocacy Solutions (AEAS), Nick provides:

- Exceptional understanding of social, political and economic issues impacting on business;
- Considerable real-world application of project, business and economic research and analysis;
- Significant expertise in advocacy, including government and stakeholder relations;
- In-depth and firsthand knowledge of the workings of Government;
- Extensive networks in political, government, business and community sectors;
- Significant commercial expertise; and
- Media commentator.



In partnership with



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