

# A currently aborning concept- National Food Waste Strategy of Australia

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SOUTH  
AUSTRALIAN  
RESEARCH &  
DEVELOPMENT  
INSTITUTE  
**PIRSA**

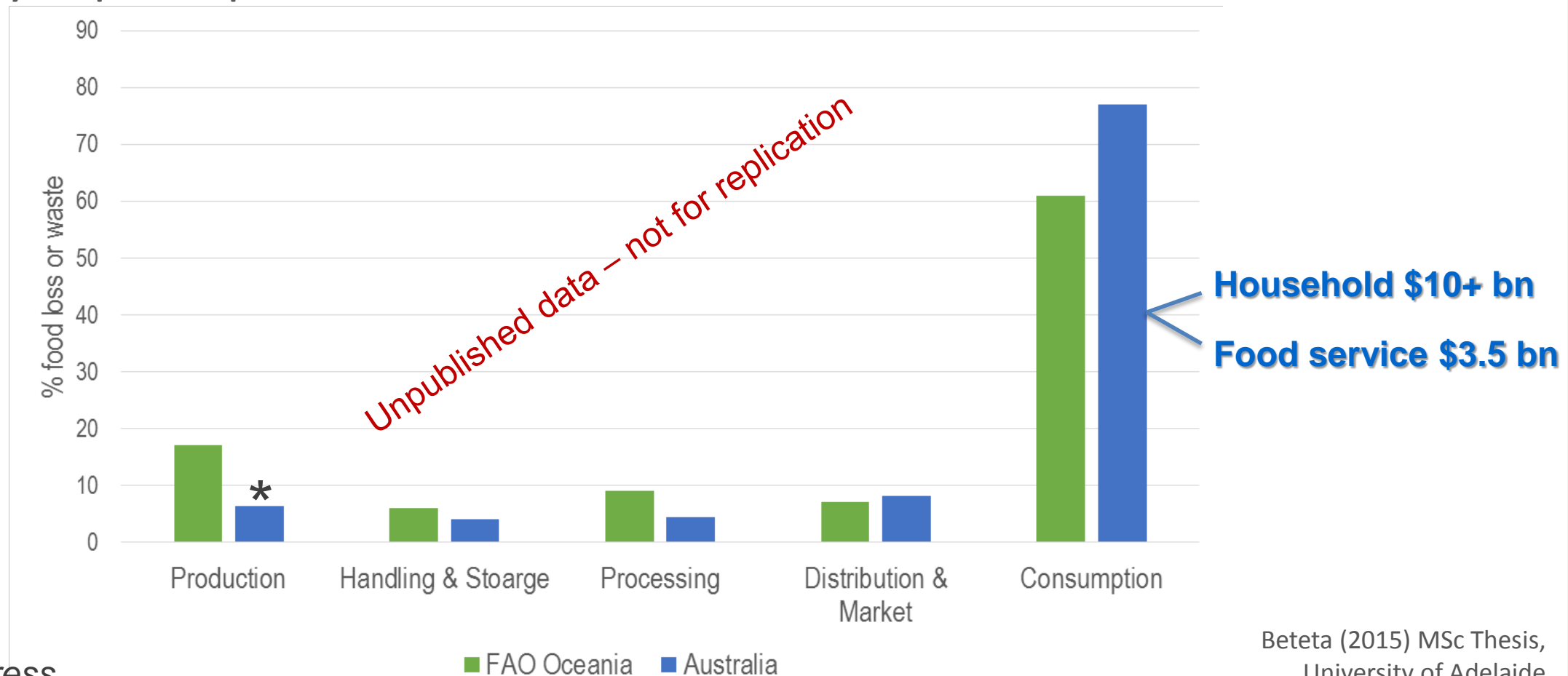


**Australian Government**  
**Department of Agriculture**  
**and Water Resources**



# Food loss and waste in Australia

Beteta (2015) estimated \$18-20 billion p.a. from farm to fork based on industry expert opinion



# Food loss and waste in Australia

Australia FLW estimates by category versus previous FAO estimates\*

Category	Production		Post-harvest		Processing		Distribution	
	Australia	FAO	Australia	FAO	Australia	FAO	Australia	FAO
Grains	1-2%	2%	0.5%-1%	2%	1%-2%	10%	5%	2%
Fruits, Nuts & Vegetables	5-50%	20%	1%-50%	4%	5-50%	2%	6%	12%
Meat	4-5%	3.7%	0.4-1%	1%	0-2.3%	5%	4%	4%
Seafood	10-75%	12%	0.5-1%	0.5%	6%	6%	5%	9%
Dairy	3%-5.5%	3.5%	-	0.5%	1.5%	1%	1.4%	1%

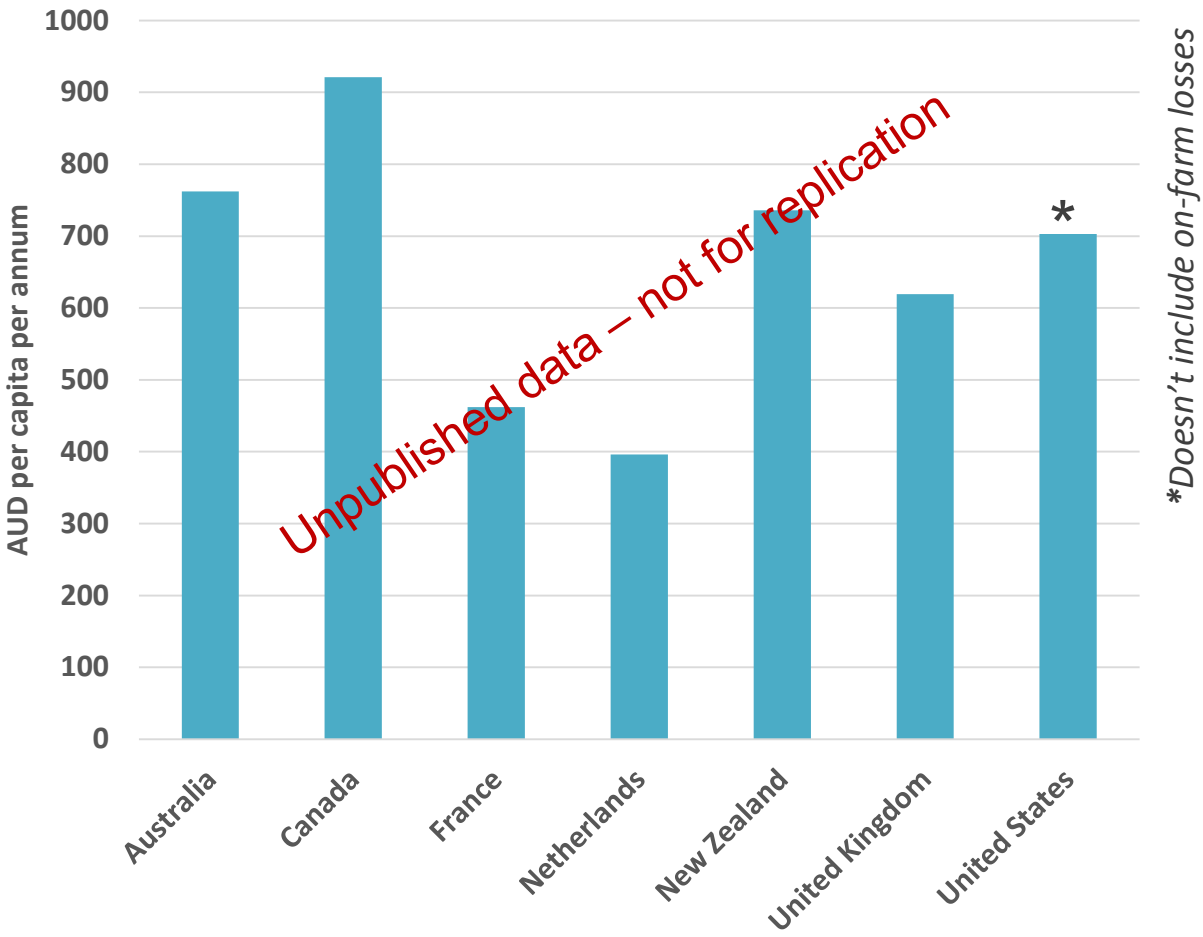
Unpublished data – not for replication

# Compared to other developed countries

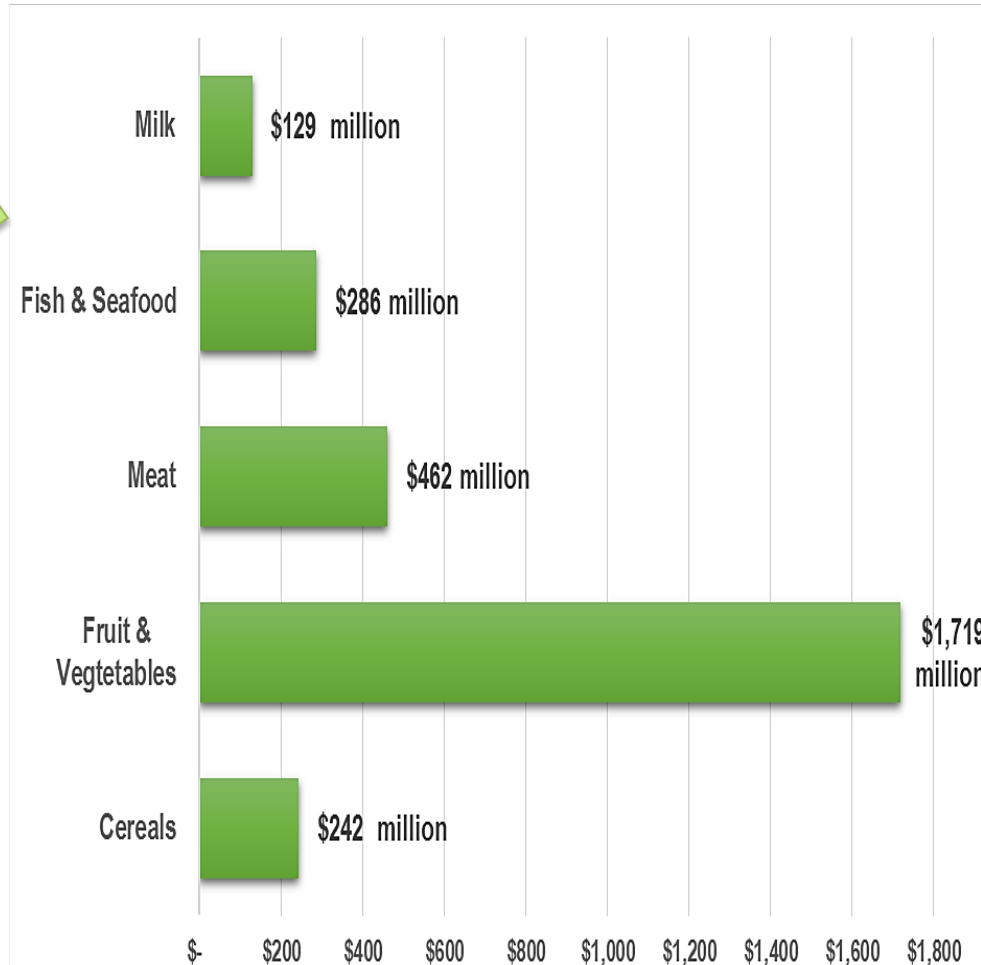
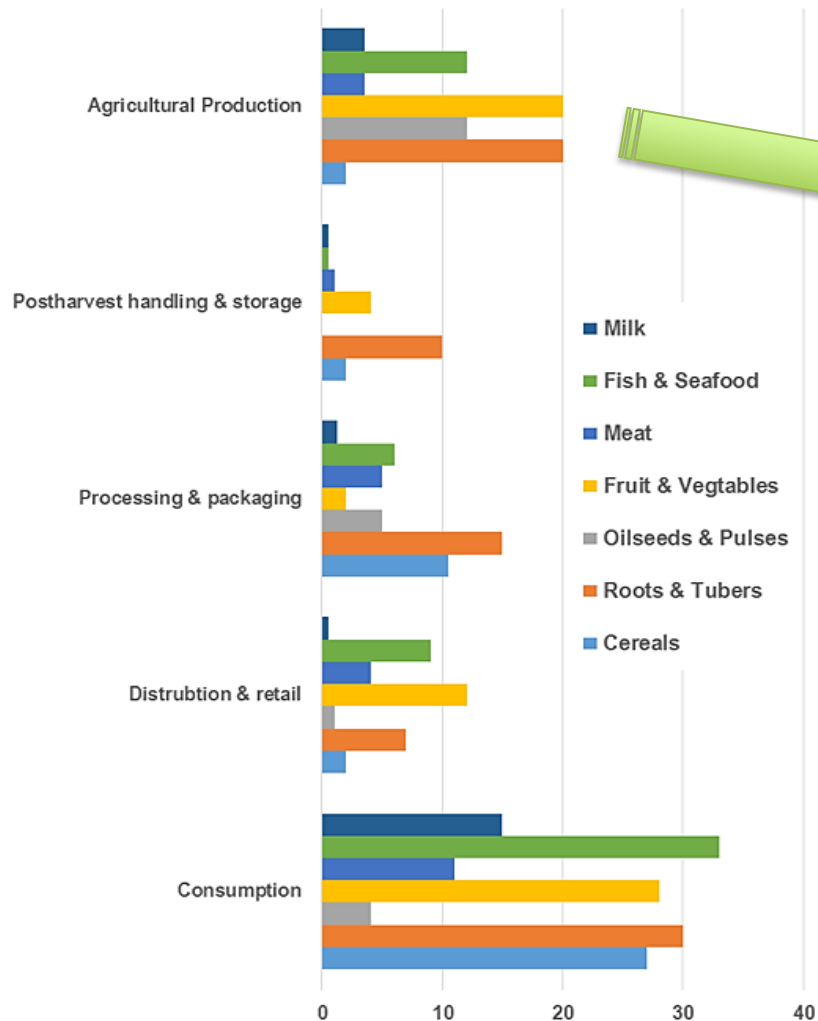
FLW total per country



FLW per capita



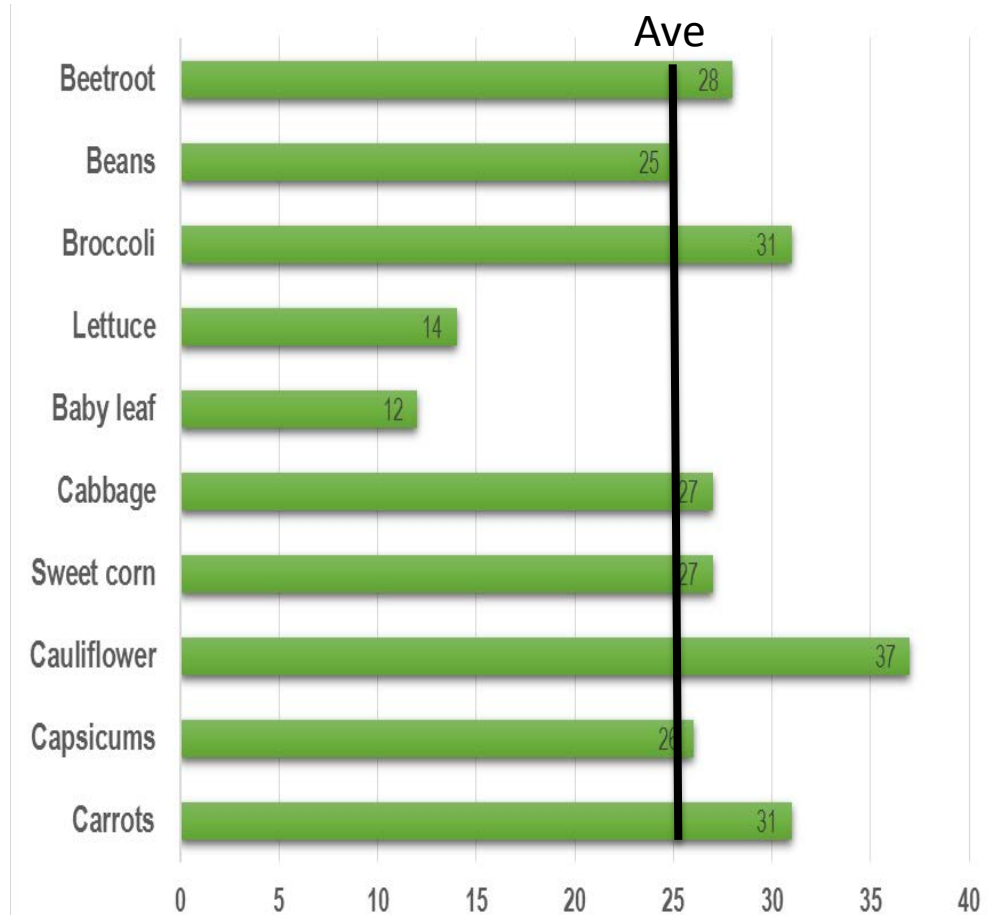
# Australian agricultural production food loss



Based on FAO figures Australian agricultural production food loss is estimated at **\$2.8 billion p.a.**

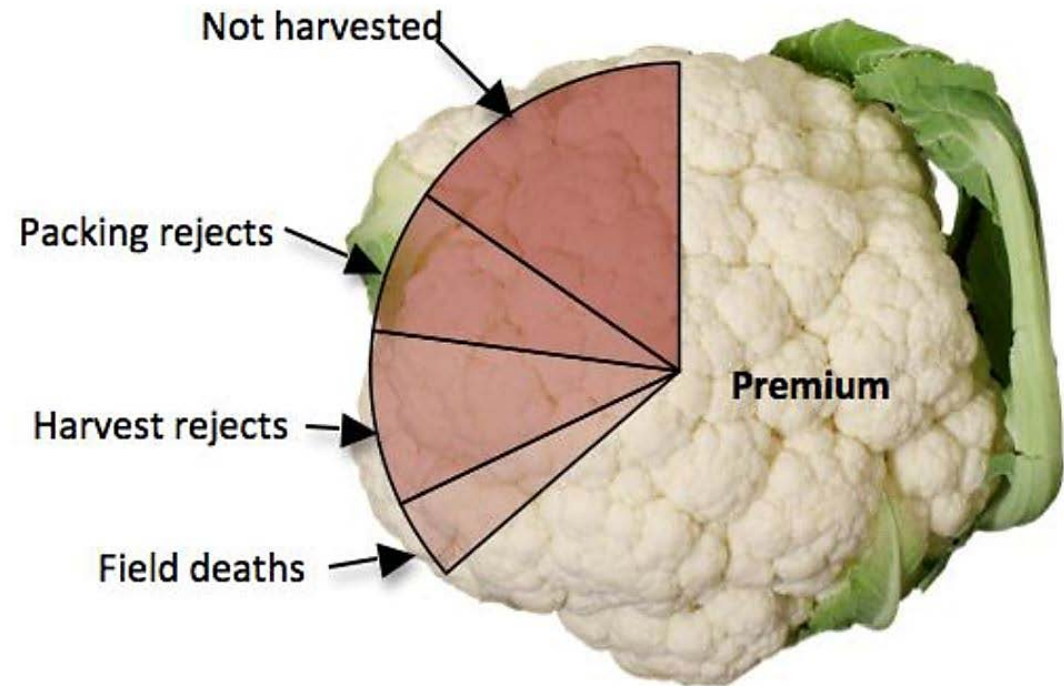


# Horticulture food loss in Australia



% waste volumes of key vegetable lines

(Rogers 2013)



37% of cauliflowers grown don't  
leave the farm  
(Rogers 2013)

# Developing regional economic opportunities from primary production food loss

*Transforming Riverland food loss and industry waste into profit:*

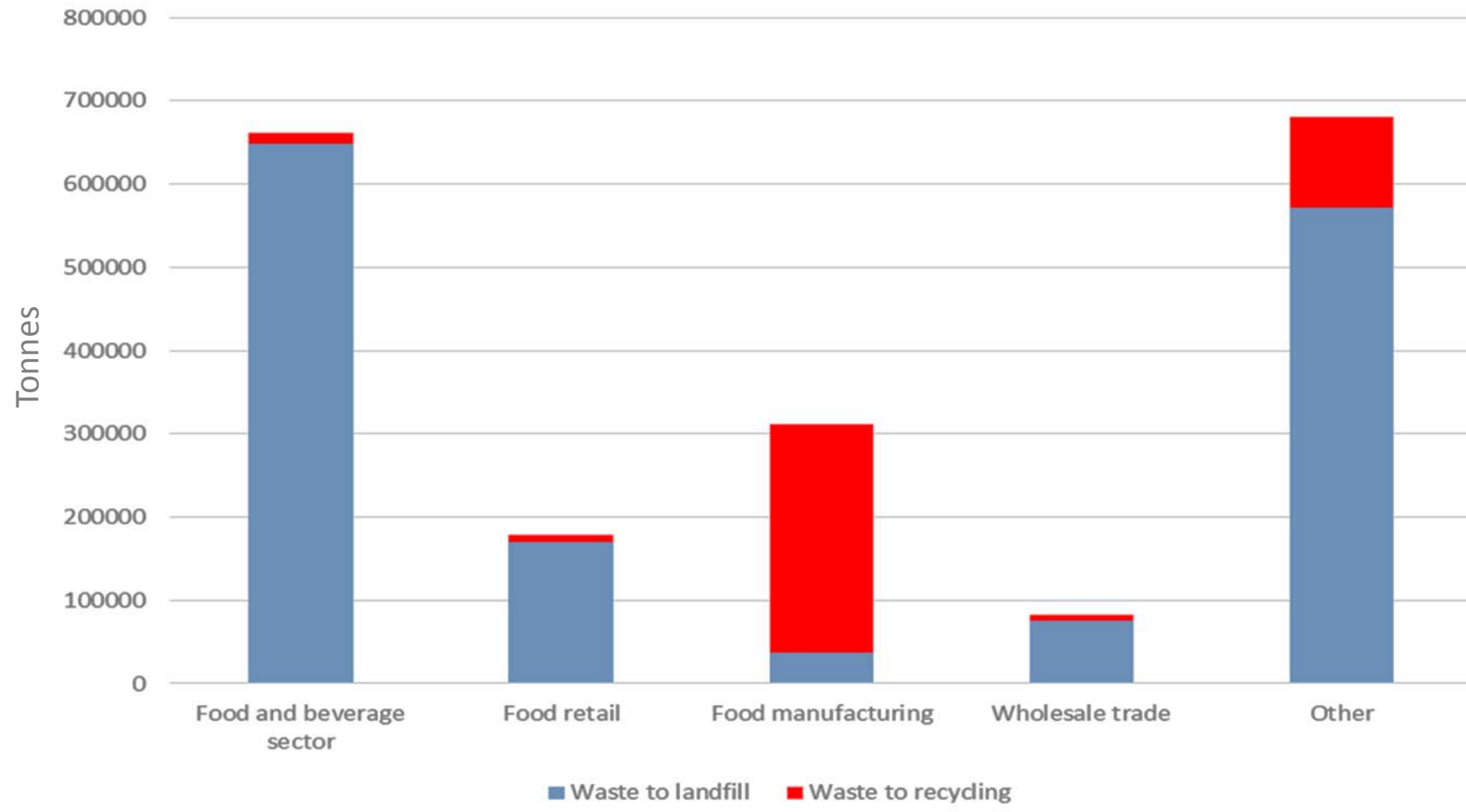
1. Map regional food loss and industry waste + transformation infrastructure
2. Bio-prospect waste for bio-actives/functional food ingredients
3. Work with food/vitamin companies to retain nutrients for human health
4. Utilise remaining waste for industrial uses and bioenergy production
5. Develop the circular food economy for the region



The Australian Wine Research Institute



# Commercial and industrial FLW in Australian



# Retail fresh food waste in Australia

Category	Share of Total Supermarket Revenue <sup>1</sup>	AUS Market Value (AUS\$m) <sup>1</sup>	FAO Reported Figures	AUS Reported Food Waste <sup>2</sup>	Total Value (AUS\$m)
Bread & bakery	7%	\$7.1	2%	5% <sup>SA</sup>	\$350
Fruits & vegetables	12%	\$12.1	12%	6%	\$730
Meat (incl. seafood)	10%	\$10.1	4%	4%	\$400
Milk & dairy	13%	\$13.1	1%	1.4%	\$180
<b>Total (\$m)</b>					<b>\$1,660</b>

Unpublished data – not for replication

<sup>1</sup>IBIS World (2016) Supermarket and Grocery Stores in Australia; <sup>2</sup>Waste estimates (2014) from a major supermarket chain.

# Household food waste in Australia

## How Much Food Do You Waste?

Australia's role in the global food waste race

Only 1 in 7 Australians say they waste more food than they should



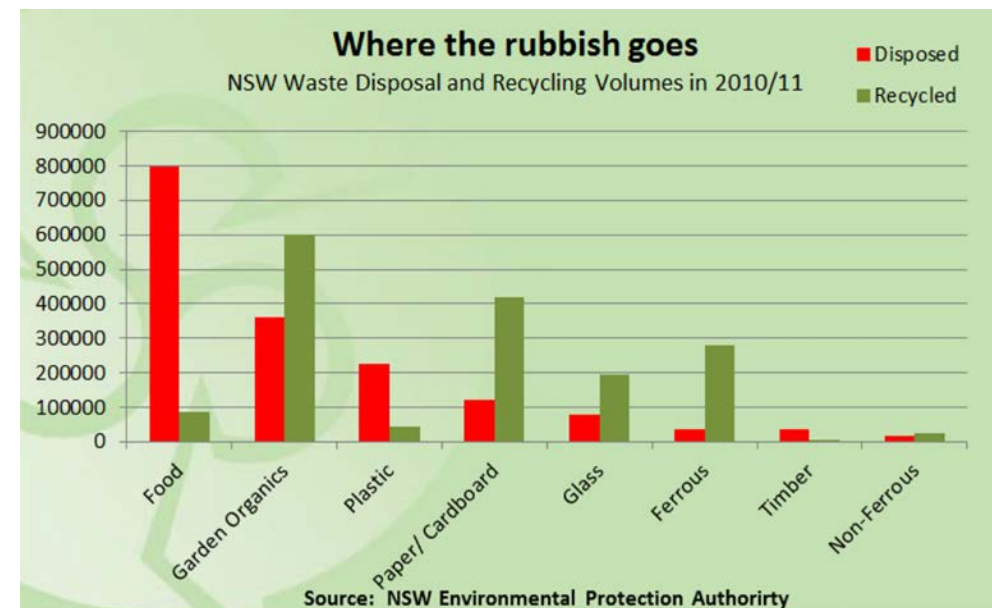
But Australia generates  
**4,000,000 tonnes**  
of food waste a year



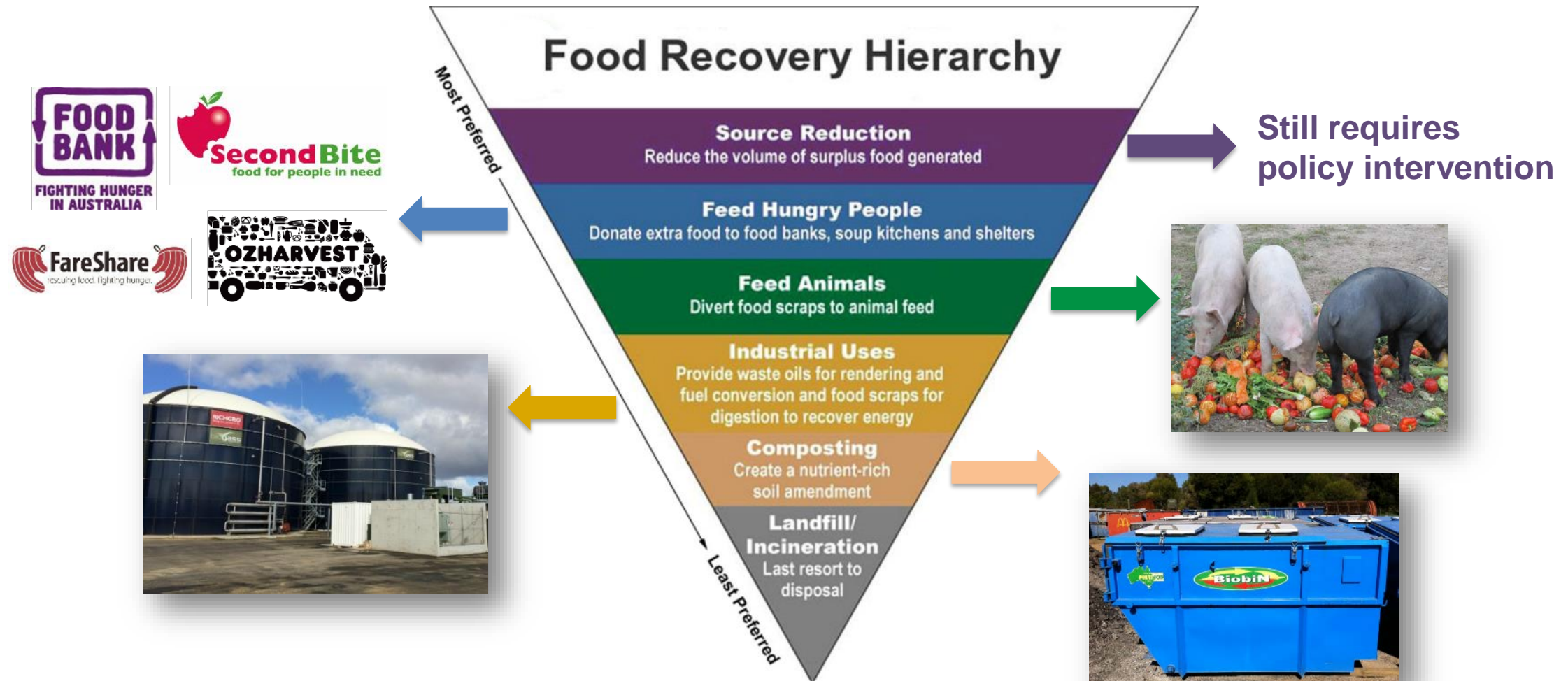
That's about  
**345kg**  
of food per household



NSW EPA recently estimated \$4,000 per household or potentially \$40 billion each year



# Treatment of food waste in Australia



In June 2016 the Federal Department of Environment and Energy committed to develop a **National Food Waste Strategy** that is now based on the SDG 12.3.



THE HON JOSH FRYDENBERG MP  
Minister for the Environment and Energy

### MEDIA RELEASE

11 April 2017

**ROUNDTABLE ON FOOD WASTE MARKS THE BEGINNING  
OF HALVING AUSTRALIA'S FOOD WASTE BY 2030**

#### Indicative Delivery of the National Food Waste Strategy



**SUSTAINABLE  
DEVELOPMENT  
GOALS**



*By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.*

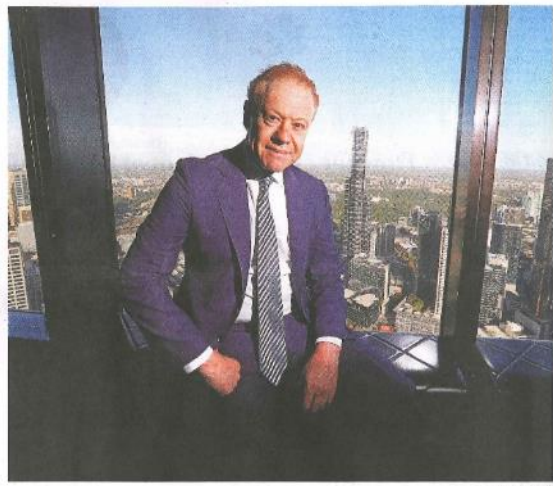
# Australia's National Food Waste Strategy



## Deliverables:

1. New independent body or committee to deliver strategy.
2. Funding base and KPI's yet to be determined.
3. Establishing a national baseline measurement of food waste.
4. Unifying existing state based approaches to FLW reduction.
5. Annual reporting against SDG Target.
6. Policies on food waste management – regulation and incentives.
7. Foster new open market approaches to waste transformation.

## Pratt bid to fix \$20bn 'hidden crisis'



Voy Industries chairman Anthony Pratt, in Melbourne yesterday, says food waste is costing the economy \$20bn a year

EXCLUSIVE  
DAMON KENNEY  
ADRIAN SMITH

Billionaire paper, packaging and recycling magnate Anthony Pratt has declared war on food waste in Australia as the federal government requests to convene a national summit to deal with the problem that costs the Australian economy \$20 billion each year.



THE AUSTRALIAN  
WILL BE AT THE  
28 MARCH, 2017  
TO BOOK TICKETS:  
globalfoodforum.com.au

and it's our nation's hidden crisis," Mr Pratt, the executive chairman of Voy, will tell the forum. "But simply stopping food waste would effectively double your product sales to end-users from the same farm footprint."

## Food waste a serious environmental problem

JOSH FRYDENBERG



University of Technology Sydney, our largest supermarket and food chains—including Coles, Woolworths and Nestlé—and food relief and rescue groups such as SecondBite, FoodBank, FareShare, OzHarvest and Yume.

With so many committed

In the environment and energy portfolio, issues such as the crisis, South Australia's black and bleaching events across Great Barrier Reef have grabbed the headlines.

# WAR ON WASTE

WITH CRAIG REUCASSEL



## THE AUSTRALIAN BUSINESS REVIEW

\$BP/ASX200  
5929.3 ▲+16.4  
IRON ORE  
\$US74.21 ▼-US74c  
DOLLAR  
US\$5.03C ▲+US0.15c

### LAW SUIT

Woolworths faces \$100m class action over profit clip (P21)

### GLENDIA KORPORAAL

India is a mixture of optimism and broken dreams (COMMENTARY P29)

### AUTO SHOCK

Tesla now rivals GM as biggest US carmaker (P25)

## We waste \$50bn of food a year, but there's a hunger for change

EXCLUSIVE  
DAMON KENNEY  
ADRIAN SMITH

More than one-third of Australia's food production that goes to waste each year—worth about \$50 billion—could be shaped under plans being formulated by major institutional investors, the federal and state governments and the nation's top research institutions.

Last year the federal government committed to developing a National Food Waste Strategy to halve Australia's food waste by 2030 and Reinvent and Energy Minister Josh Frydenberg will lead today's inaugural Food Waste Roundtable forum in Melbourne that he has secured the support of state and territory governments to convene to address the problem.

"Understanding exactly the dimensions of food waste—how it flows in and out of the supply chain—will be a critical first step in identifying solutions that will work in practice. Research by our academic institutions provides valuable insight into these dynamics," Mr Frydenberg will tell delegates.

Mr Frydenberg also plans to convene the government's inaugural National Food Waste Summit in November to seek a solution that Mr Pratt welcomed last month has become "our nation's hidden crisis".

Pratt will tell the forum that based on Australia's current value of food production (about \$120bn per year), "reducing that food loss

into more than \$50bn of waste is a significant challenge that will require co-operation between governments, industry and other stakeholders," Mr Frydenberg says in a letter to round table invitees, which include some of the nation's biggest retailers and food processors.

The roundtable is being supported by the philanthropic arm of Voy known as the Pratt Foundation, which has supported several initiatives to reduce food waste. The Pratt Foundation as well as the Deane Family Foundation and the Myer Foundation have long supported food rescue groups nationwide.

Other food charities include groups such as OzHarvest, FoodBank, FareShare, SecondBite, FoodBank, FareShare, OzHarvest and Yume.

Pratt's vision will be attended by senior executives from the likes of Woolworths, Marks & Spencer, Costa Group and Goodman Fielder, as well as senior officials from the federal government and all state governments.

Local charities Oz Harvest and SecondBite—wills has a multi-million-dollar community food program backed by retail giant Coles—will also make presentations.

"Taking a full supply chain approach will help identify solutions and priorities for reducing food waste at those links in that chain that will deliver the greatest waste reductions and economic rewards," Mr Pratt will tell the forum, which will also be attended by Brian McPherson, the global chief executive of the then \$200-billion multi-billion-dollar Voy Group.

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# Australian must protect its reputation for clean, healthy food

CRAIG HERAGHTY

The Australian | 12:00AM April 10, 2017



Australia's food system has grown and evolved over hundreds of years. It is a system that's served Australians well and underpinned much of our economic prosperity.

But it's a system at risk. And nowhere is the threat larger or more real than in the domain of food fraud. Unfortunately, for many, it seems to be a lower-order issue.

Mar 24 2017 at 11:34 AM | Updated Mar 24 2017 at 11:35 AM

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## Australia Post, Alibaba Blackmores team up to fight China food fraud

Mar 24 2017 at 11:34 AM | Updated Mar 24 2017 at 11:35 AM



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THE ADELAIDE REVIEW

BUSINESS

# Food Fraud: SA's Reputation for Clean, Healthy Food is on the Block

MAY 25, 2017 by ANDREW STEWART





# FIGHT FOOD WASTE & FRAUD CRC

To protect and profit Australia's food & wine industry

**PREMIUM**  
FOOD AND WINE FROM OUR  
**CLEAN**  
ENVIRONMENT

# PROGRAM DESIGN & BENEFITS

**MISSION:** We will protect and profit Australia's food and wine industry through reducing food waste and fraud through collaborative industry-led research, development and education.

**RESEARCH CAPABILITIES:** Food science, organic chemistry, food safety, molecular biology, genomics, engineering, packaging design, agribusiness and marketing, human and animal nutrition, social science, economics.

## TRANSFORMING WASTE

New co-product development  
Functional ingredients  
Decision support tools for waste transformation  
Technology optimisation

## PACKAGING INNOVATION

Smart & intelligent packaging  
Industrial design  
Improved product storage  
Shelf-life optimisation  
Food waste prevention

## BRAND PROTECTION

Known composition  
Proof of provenance  
Traceability  
Certification diagnostics  
Product assurance

## EDUCATION & TRAINING

National Food Waste Strategy  
Consumer education  
Industry communication & training  
Student training

Food safety and integrity

Circular economy business opportunities and market research

Effective policy and governance

## BENEFITS

Reduced industry waste & disposal charges  
Nutraceutical industry development  
Higher industry profits  
Income diversification  
New bio-industries  
Regional jobs & growth  
Environmental sustainability

## BENEFITS

Reduced product waste  
Greater market share  
Command higher prices  
More loyal consumers  
New export markets through increased shelf life  
Social responsibility  
Business growth

## BENEFITS

Reduced product counterfeiting  
Greater product integrity  
Consumer trust  
Increased sales  
Reduced business risk  
Improved brand value  
Protect 'Brand Australia'

## BENEFITS

Greater food recovery  
Reduced food loss & waste  
Reduced landfill  
Reduced greenhouse gases  
Upskilling workers  
Better fraud prevention  
Supply chain assurance  
Free up household incomes

# Deliverables – Reducing Consumer Waste

- ✓ Work with Federal Dep of Environment & Energy and OzHarvest
- ✓ National food loss & waste benchmarking and annual monitoring
- ✓ Consumer behavioural change science underpinning the National Food Waste Strategy



**THE HON JOSH FRYDENBERG MP**  
Minister for the Environment and Energy

## **MEDIA RELEASE**

11 April 2017

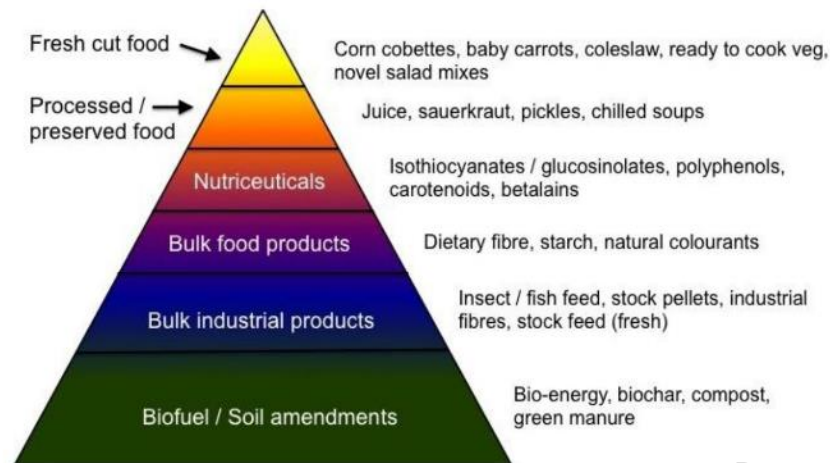
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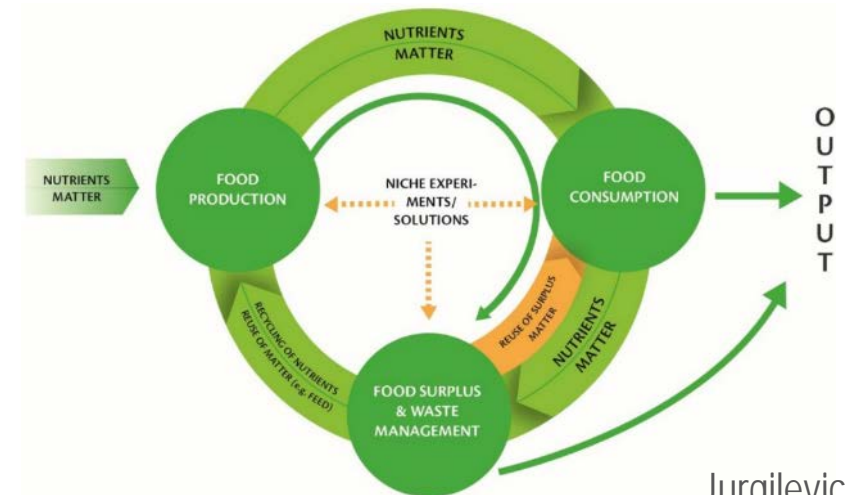


# Deliverables – Transforming lost food

- ✓ Developing new products from food waste, including high value functional ingredients
- ✓ Developed decision support tools with industry for industry
- ✓ Develop the circular agri-food economy in Australia



Rogers 2013



Jurgilevich *et al.* 2016

# 'Food Fight' CRC

## Bid Timeline

### STAGE 1

- May 2017.** Release of revise Prospectus. Raise bid development fund from partners.
- June 2017.** Industry workshops or survey to identify knowledge needs. Engage bid development team. Prepare 20 page Expression of Interest.
- July 2017.** Submit Expression of Interest.

### STAGE 2

- September 2017.** Stage 2 opens for shortlisted bids.
- October 2017.** Prepare Full Business Case.
- November 2017.** Full Business Case due.
- March 2018.** Successful bids announced.
- July 2018.** Successful bids commence.

The Food Fight CRC will be seeking ~\$50 million over 10 years, which it will match with \$150 million in participant cash and in-kind.

We are currently seeking international participants.