STOP FOOD WASTE AUSTRALIA

The Australian Food Pact: Reducing food waste, driving change

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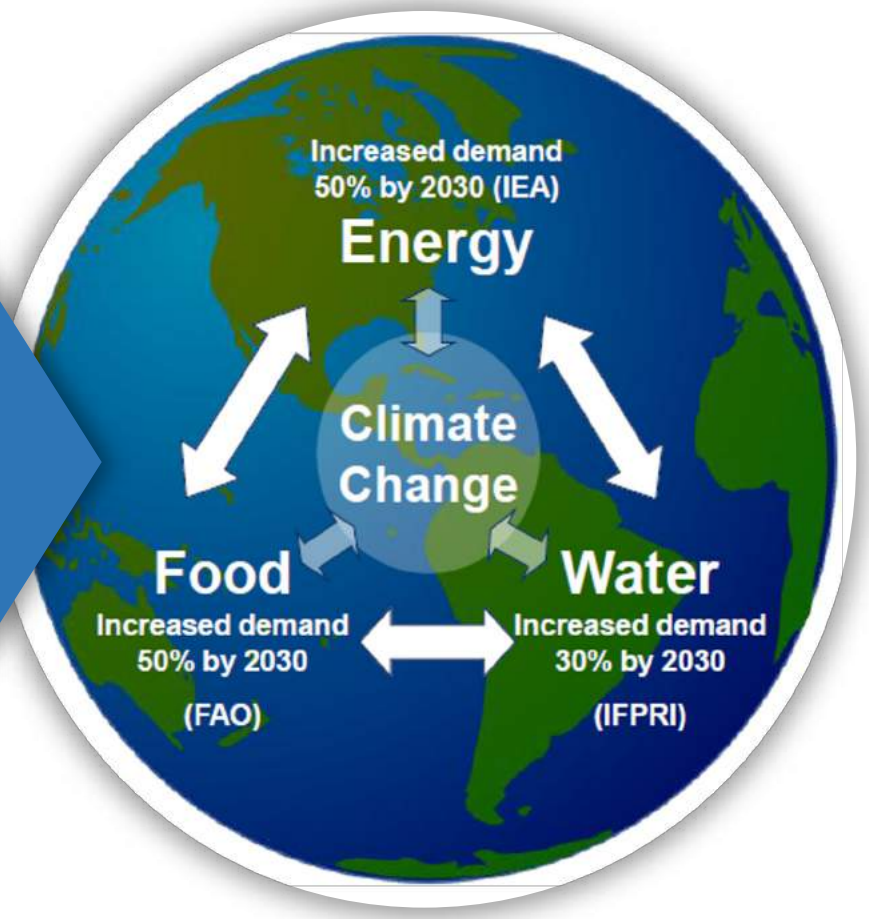
The Perfect Storm

1. Increasing global population
2. Growing middle class
3. Increasing levels of urbanisation
4. The rightful goal to alleviate poverty
5. Climate risks to the food system



'*Globally we are facing an estimated 4 Trillion calorie gap and a 260-370 million tonne protein gap as we look out to 2050.*'

Paul Bertsche - Science Director, Land and Water, CSIRO

'Reducing food loss and waste, therefore, can generate a 'triple win'. It can save money for farmers, food companies and households. It can help feed more people. And it can alleviate pressure on water, land and climate.'[1]

1. **Source**: Champions 12.3 – Guidance on interpreting Sustainable Development Goal Target 12.3

If global food waste was a country…

…it would consume:

- 32% of global food supply by weight, at a cost of circa A$1.8 trillion a year[1]
- 25% of all water used in agriculture[1]
- 23% of all the fertiliser used on Earth[3]
- 1 in 4 of all food calories available on the planet[2]

And it would be:

- The world's third largest carbon emitter after the USA and China (generating 8% of total global greenhouse gas emissions)[3]
- Utilising an area of cropland the size of China[1] (Australia's landmass is 82% of China's landmass).

Source: **(1)** Champions 12.3 – SDG Target 12.3 on Food Loss and Waste – 2019 Progress Report; **(2)** WRI Creating a Sustainable Food Future Instalment Paper 2: Reducing Food Loss and Waste (calorie statistic) and **(3)** WRI – Reducing Food Loss and Waste – Setting a Global Action Agenda (2019) (fertiliser statistic).

Australia

- 7.7 million square kilometers - sixth largest country in the world
- 25.55 million people
- 200,000 more woman than men

Agriculture

- $62.2 billion
- 79% exported
- Produces enough food to feed 75 million people[4]

Food waste

- 7.6 million tonnes a year
- $36.6 billion value to the economy lost
- 17.5Mt of CO_2e – 3% of Australia's GHG emissions
- 25.73M Ha of land used to grow food that is then wasted - bigger than the landmass of the Victoria 22.7 M Ha

Hunger

- 1-5 (5 million) Australian's experienced food insecurity in 2019.
- Demand for food relief increased by 47% in 2020[3]

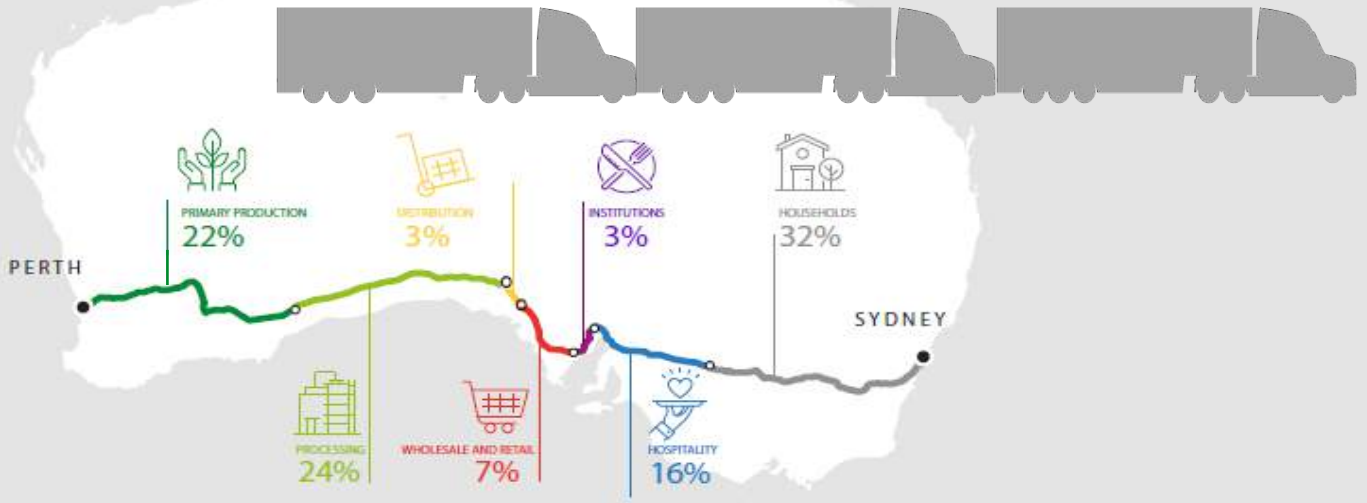
Sources: 1) FIAL (2021) - National Food Waste Strategy Feasibility Study (unpublished); 2) Fight Food Waste CRC (2020) food waste GHG impact estimates for whole food value chain; 3) Foodbank Hunger Reports for 2019 and 2020; 4) ABARES (2021), Snapshot of Australian Agriculture 2021, Australian Bureau of Agricultural and Resource Economics and Sciences

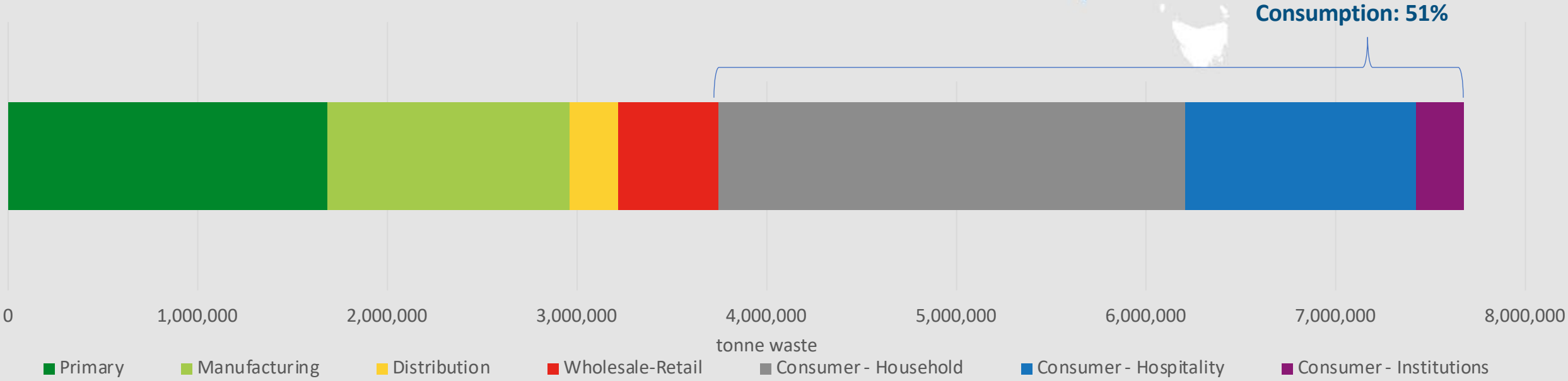
TOTAL NATIONAL FOOD WASTE

7,676,128 t

If the total food waste in Australia was placed in semi-trailers and parked in a line, the line would stretch from Sydney to Perth (3,935km)

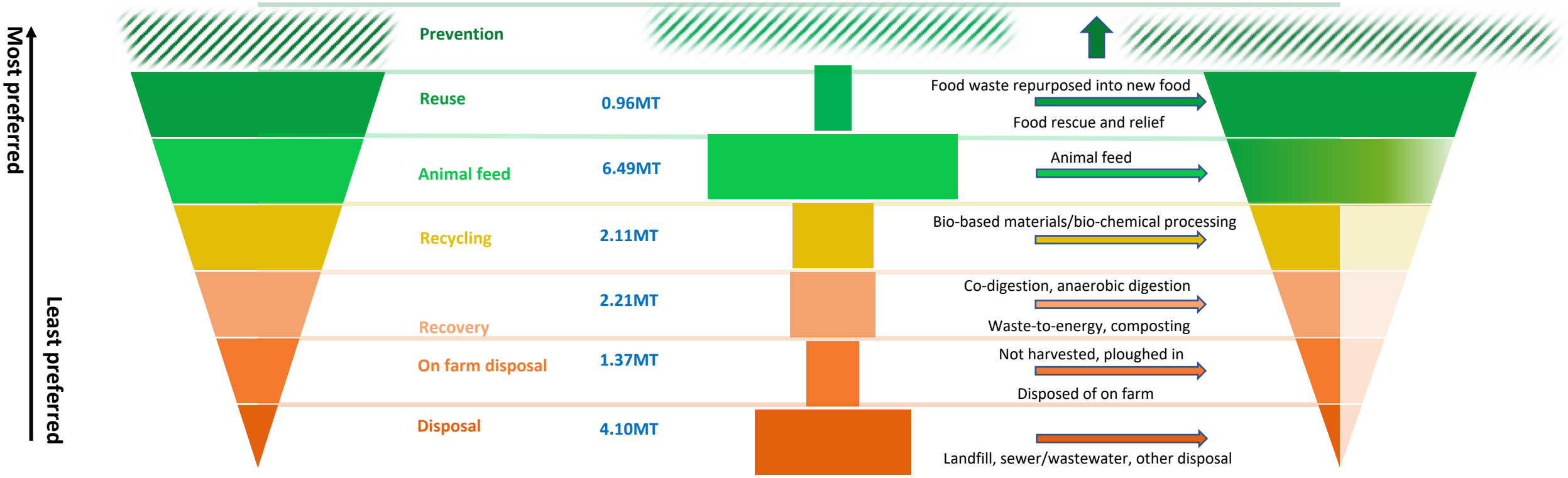
THE FOOD WASTE FREEWAY





Sources: 1) FIAL (2021) - National Food Waste Strategy Feasibility Study (unpublished);

The challenge ahead: halving food waste in Australia



Key:

Prevention: means the elimination of - or reductions in - food waste

Recycling: includes co-product development (unlocking value from food waste streams – e.g. bio-refining, biomaterials), co-digestion/anaerobic digestion

On farm disposal: e.g. land application, or where food is not harvested or ploughed back into the land, or otherwise disposed of on farm

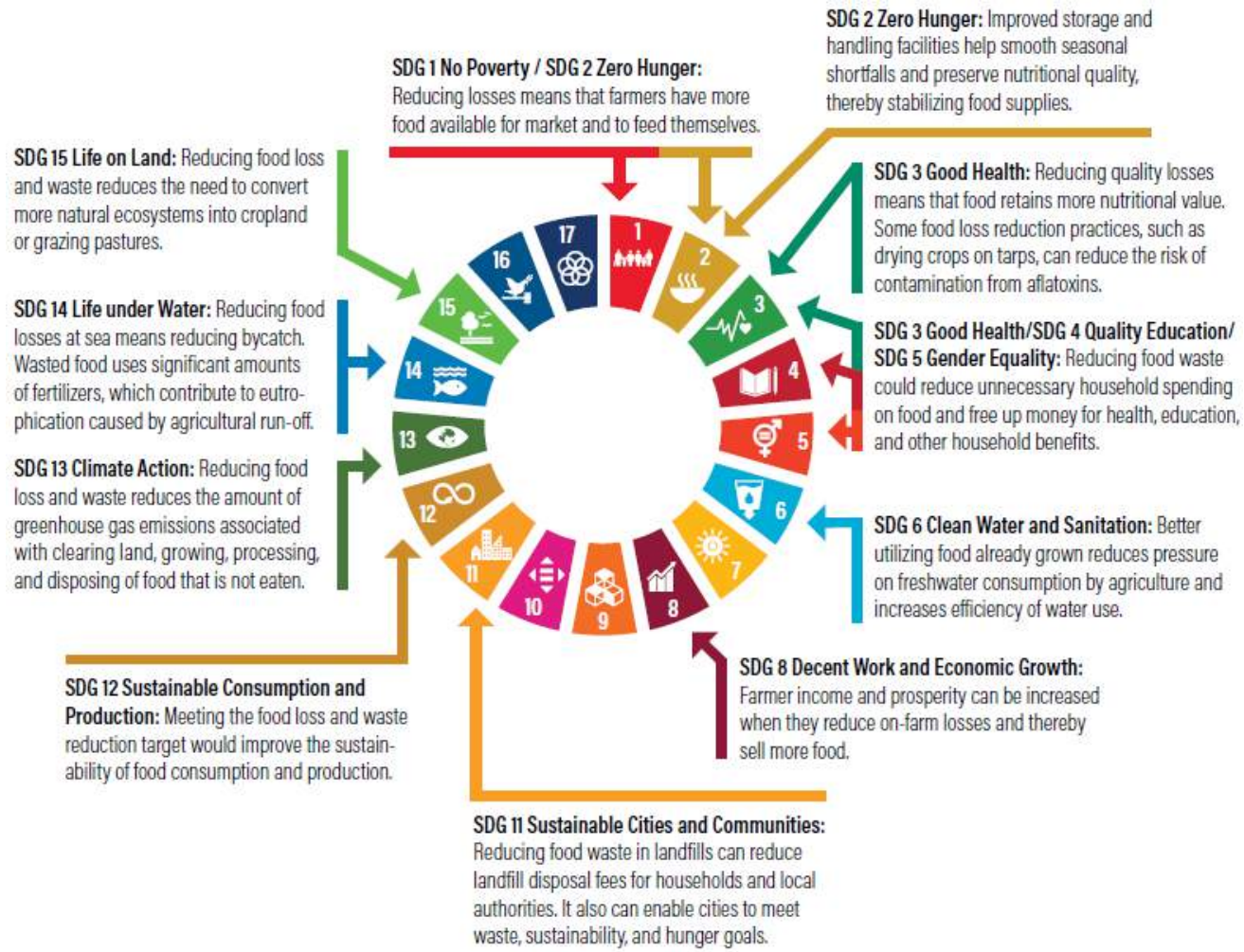
Disposal: landfilling of food waste, sewer or wastewater treatment, other disposal methods

Reuse: includes donation of safe, surplus food to food rescue & relief organisations and food waste repurposed into new food products

Recovery: the controlled combustion of food waste (waste to energy), and aerobic composting

Food loss and waste and the UN SDGs

"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"

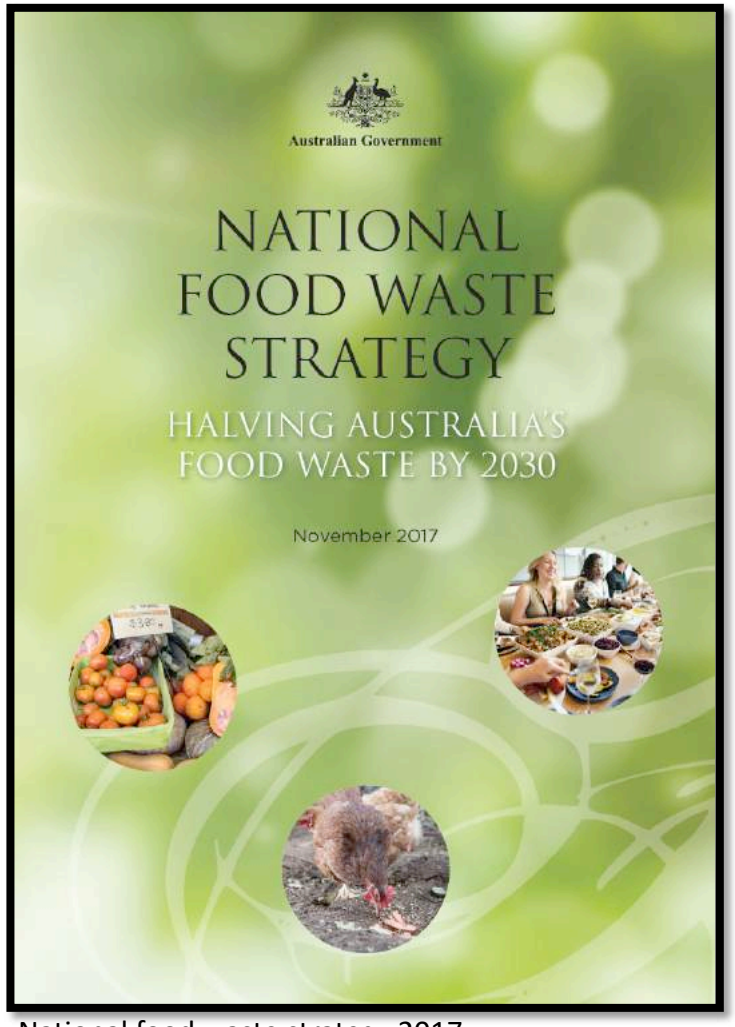


Source: World Resources Institute – Reducing Food Loss and Waste – Setting a Global Action Agenda (2019)

The policy context

Strategy

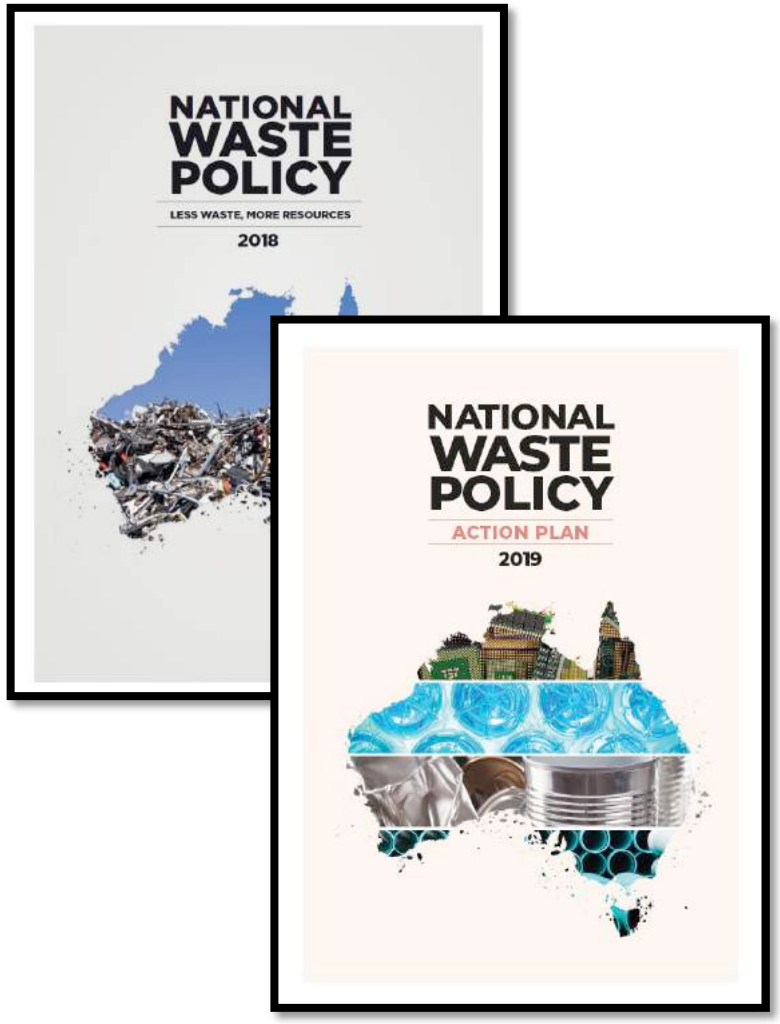
2017



National food waste strategy 2017

Policy

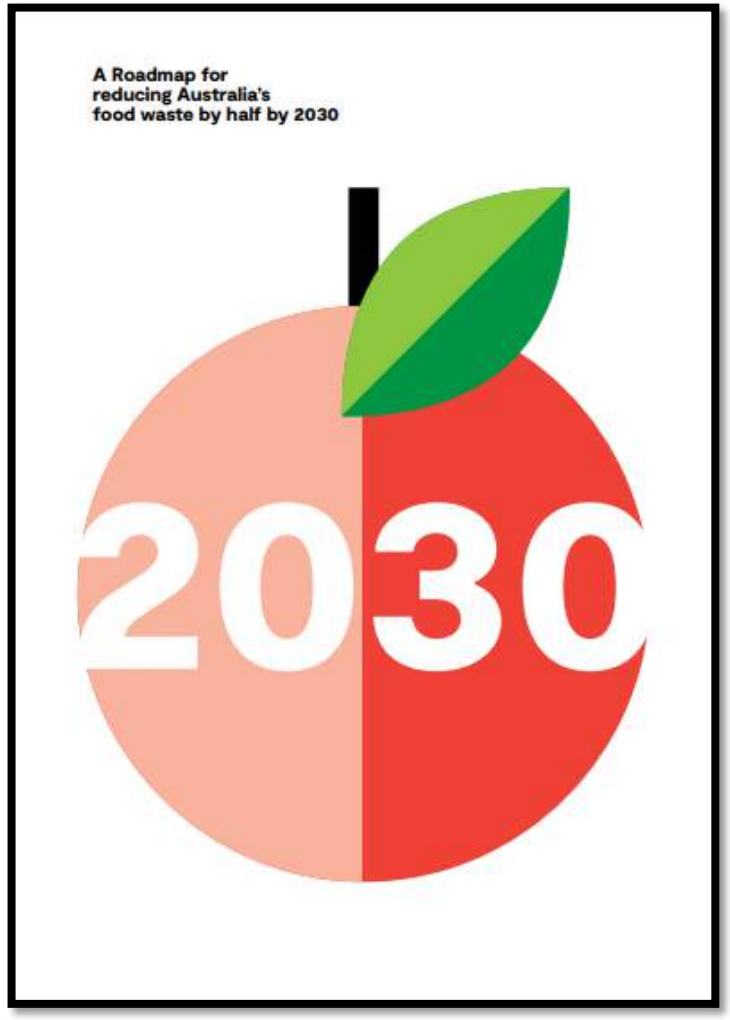
2018-19



National waste policy 2018
National waste policy action plan 2019

Roadmap

2020



A Roadmap for reducing Australia's food waste by half by 2030

STOP FOOD WASTE AUSTRALIA

Sector Action Plans
Co-design to maximise co-benefits

The **Australian Food Pact** is a **voluntary agreement** that provides an internationally proven way of **tackling food waste**, focusing on prevention, reuse (donation), and food chain transformation and innovation

Reduce food waste through:

- Sustainable product development, buying and sourcing
- Whole of supply chain optimisation
- Behaviour and cultural change
- Unlocking new value

Committed to halving Australia's food waste by 2030

Stop Food Waste Australia

A unique public - private partnership

Australian Government
Department of Agriculture, Water and the Environment

FIGHT FOOD WASTE
Cooperative Research Centre
REDUCE - TRANSFORM - ENGAGE

wrap

AUSTRALIAN LOCAL GOVERNMENT ASSOCIATION

National Farmers Federation

AUSTRALIAN INSTITUTE OF PACKAGING

AFCCC
Australian food cold chain council

AUSTRALIAN FOOD & GROCERY COUNCIL

National Retail Association

FOOD BANK

OZHARVEST

SecondBite
Ending Waste. Ending Hunger.

Queensland Government
Department of Environment and Science

ACT Government
Transport Canberra and City Services

Government of South Australia
Green Industries SA

Sustainability Victoria

VICTORIA State Government

Tasmanian Government

Government of Western Australia
Department of Water and Environmental Regulation

IMPLEMENT THE VOLUNTARY AGREEMENT: THE AUSTRALIAN FOOD PACT

COMMUNICATE, ENGAGE AND PARTNER FOR IMPACT

DEVELOP NEW AND IMPLEMENT THE EXISTING SECTOR ACTION PLANS

MEASURE, EVALUATE AND REPORT OUR PROGRESS

Planning

Arcadis publish the initial National Food Waste Baseline for Australia.

Initiation and evidence

FIAL publish *A Roadmap for reducing Australia's food waste by half by 2030.*

FIAL initiate the National Food Waste Strategy (NFWS) Feasibility Study.

The Stop Food Waste Australia partnership is formed.

The Voluntary Agreement program is designed.

The Food Rescue and Food Cold Chain Sector Action Plans are published.

Build

Stop Food Waste Australia (SFWA) and the Australian Food Pact are launched, the team grows.

FIAL publishes the NFWS Feasibility Study and updated national baseline.

SFWA's Strategic Plan for 2021-25 is published and the 2021-22 Operating Plan is completed.

The Food Rescue and Food Cold Chain Sector Action Plans are refreshed and launched.

SFWA begins securing additional income.

The case for a nationwide behaviour change campaign is finalised.

Review and refine

New Sector Action Plans are published and begin to be implemented.

The 2022-23 Operating Plan is agreed.

The second National Food Waste Summit is held.

SFWA supports Food Waste Action Week.

Mid-way point

Mid-point review of progress against the halving food waste target and adaptive management.

SFWA publishes its 2025-30 Strategic Plan.

Extend

The National Food Waste Baseline is updated.

The current SFWA federal grant seed funding period is completed.

50 signatories have joined the Australian Food Pact.

The final push

The National Food Waste Baseline is updated.

Complete

Final evaluation and reporting against national target framework and UN SDG Target 12.3.

The power of voluntary agreements

A voluntary commitment is a proven way of tackling food waste, focusing on prevention, reuse (donation) and food chain innovation. They are already being used in over 30 countries.

By working together to achieve collective goals, organisations from across the agri-food sector can learn from each other, collaborate and deliver change in the most efficient and effective way.

The Australian Food Pact builds on the momentum of the Fight Food Waste Cooperative Research Centre and the National Food Waste Strategy, collectively tackling challenges too big for any of us to meet alone.

Halving Australia's food waste by 2030 benefits everyone – your business, federal and state governments, food and drink businesses across the supply chain and all Australians in their daily lives. You, your peers, suppliers and customers, governments and other funders together can make this happen.

The benefits of a voluntary commitment are that they can:

- Act as a flexible and agile delivery vehicle for whole food chain collaboration and action.
- Be implemented quickly and adapt to change.
- Save time: catalysing and embedding change in less time than it typically takes to introduce new legislation or regulation.
- Provide a safe, pre-competitive space for organisations to work together on common problems and find mutually beneficial solutions.
- Generate new data and insight, allowing the tracking of progress over time.
- Help governments at all levels to agree and align policies, targets, infrastructure and services.

THE COURTAULD COMMITMENT

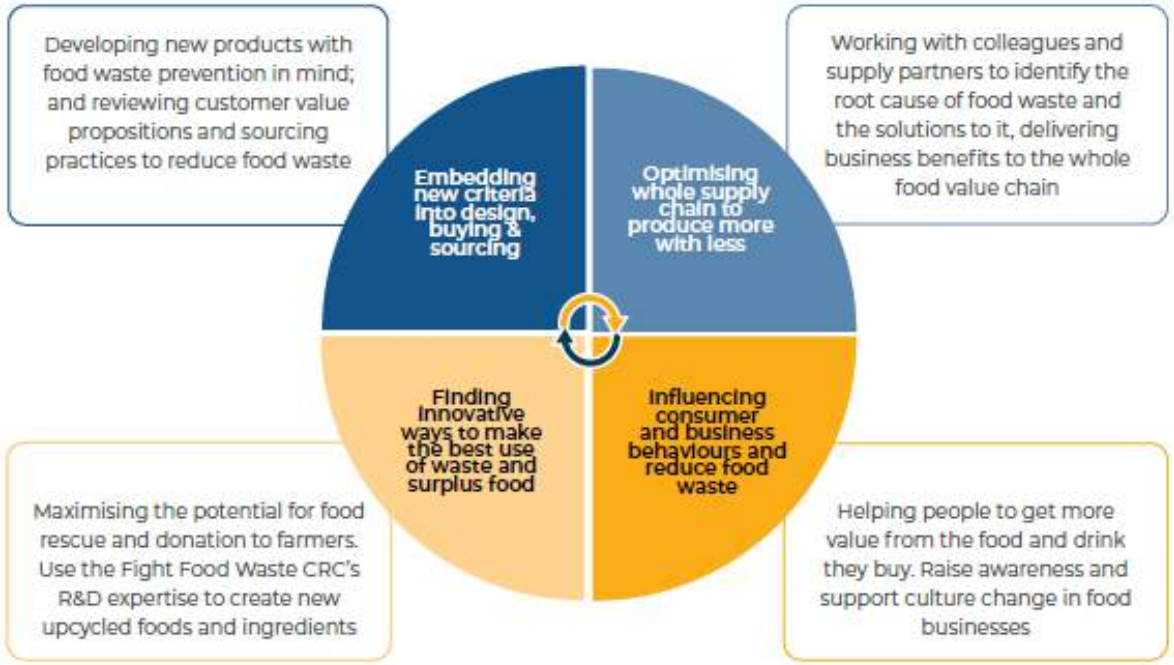
The Courtauld commitment is an award-winning UK voluntary commitment to tackle food and packaging waste and has been in operational since 2005 . More than 165 organisations, including major retailers, brands, hospitality and food service companies, peak industry bodies and sector bodies and national and local governments have worked together to reduce food waste by 3.5 million tonnes, in the process saving the equivalent of nearly $19 billion for food businesses and consumers between 2007 and 2018.

The latest phase of the Commitment, Courtauld 2025, could help deliver cumulative savings of $40 billion to UK food and drink businesses and households by 2025.

The Australian Food Pact

Launching in August 2021

Four areas of focus that drive circularity and improve food supply chain resilience, sustainability and performance.



Strong links with all three Fight Food Waste CRC programs, with potential to adopt and commercialise R&D outputs

Sustainable product development, buying and sourcing

Activities could include: resource efficient, low waste product development workshops, ideation and innovation sessions (e.g. the role of packaging in reducing food waste); reviewing the potential to relax quality standards to improve crop / ingredients utilisation and exploring sustainable procurement and whole crop purchase arrangements.

Whole of supply chain optimisation

Activities could include: value chain waste mapping, root cause and food waste hotspots analysis, lean and green auditing, solutions development and piloting; and mainstreaming and embedding successful solutions.

Behaviour and cultural change

Activities could include: supporting a nationwide consumer behaviour change effort (e.g. the Love Food Hate Waste campaign) and a business-facing cultural change campaign (e.g. Guardians of Grub) to reduce food waste in homes and businesses; behavioural and attitudinal trends analysis and insights; and a Behavioural Interventions Lab, to identify, test and launch the most impactful interventions with industry.

Unlocking new value

Activities could include: working together to support the scaling-up of food rescue and relief sectors to reduce food waste and food insecurity, including the potential to fully utilise a growing app-based ecosystem. And collaborative working with the Fight Food Waste CRC's TRANSFORM Program, CSIRO and others to identify new ways to create value for surplus food and food waste.

Sector Action Plans (SAPs)

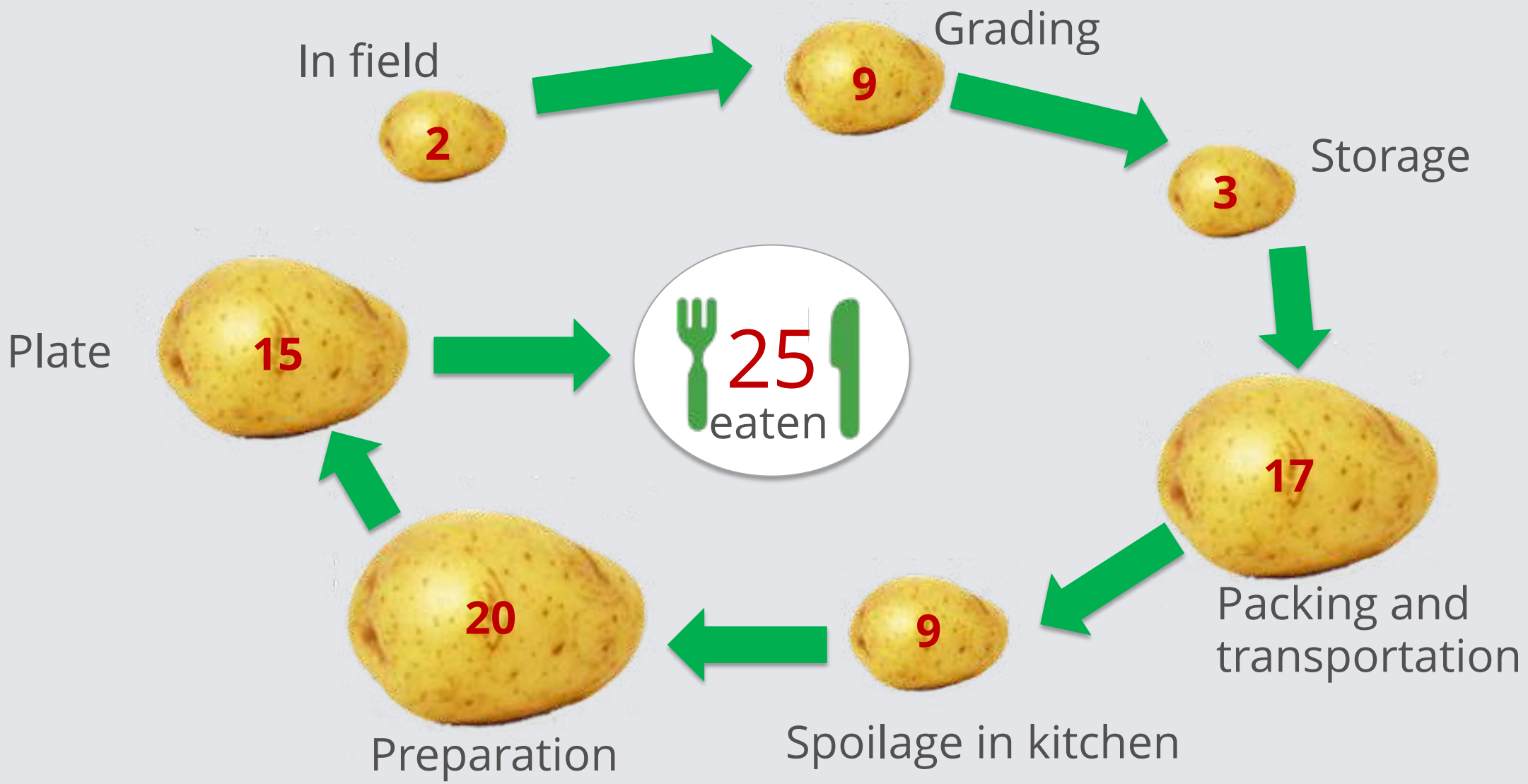
Building new partnerships and coalitions

Providing a concentrated focus on significant food waste hotspots, with five pillars of activity

Strong links with all three CRC programs, with potential for increase in matched R&D project co-funding

- Refresh of Food Rescue and Food Cold Chain SAPs (strong engagement and co-investment).
- Up to five new SAPs to be selected in July 2021 and operational by June 2024. Selection based on NFWS Feasibility Study outputs and coalition of the willing.
- $270K joint grant proposal to Sustainability Victoria with Dairy Australia, the Australian Dairy Products Association and the Australian Dairy Manufacturer's Sustainability Council to develop a Dairy Sector Food Waste Action Plan.
- NSW EPA interested in developing and co-funding a Bakery Sector Action Plan. Goodman Fielder keen to co-lead delivery.

Supply chain example: 100 potatoes in hotel waste



Embed new criteria into design, buying and sourcing

Provide innovative resource efficient, low waste products

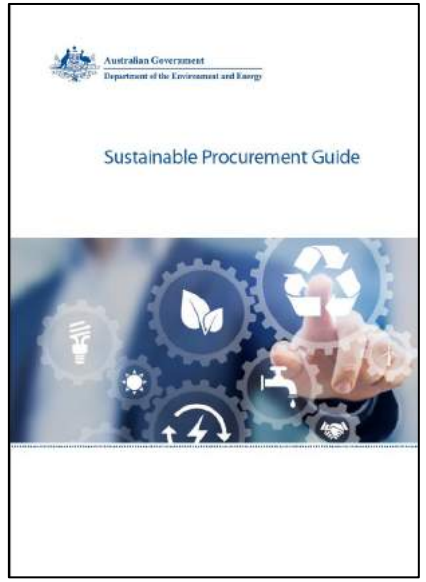
Embed new criteria into design, buying & sourcing

Sustainable product design

- Product development workshops
- Embedding resource efficiency and low waste concepts into new product development (NPD)
- Product benchmarking
- Innovation workshops and road-mapping

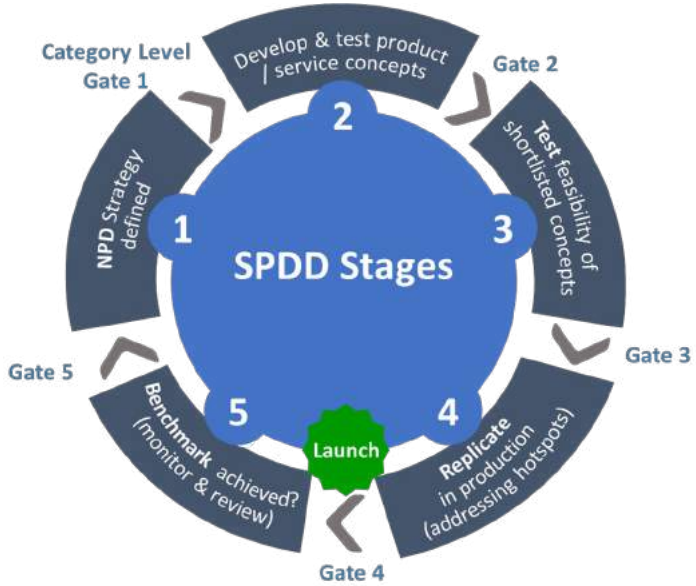
Buying and sourcing

- Review guidance to buyers and product specifications to identify opportunities to reduce waste
- Reviewing food waste hotpots in different sourcing regions and work with suppliers to achieve best-in-class outcomes

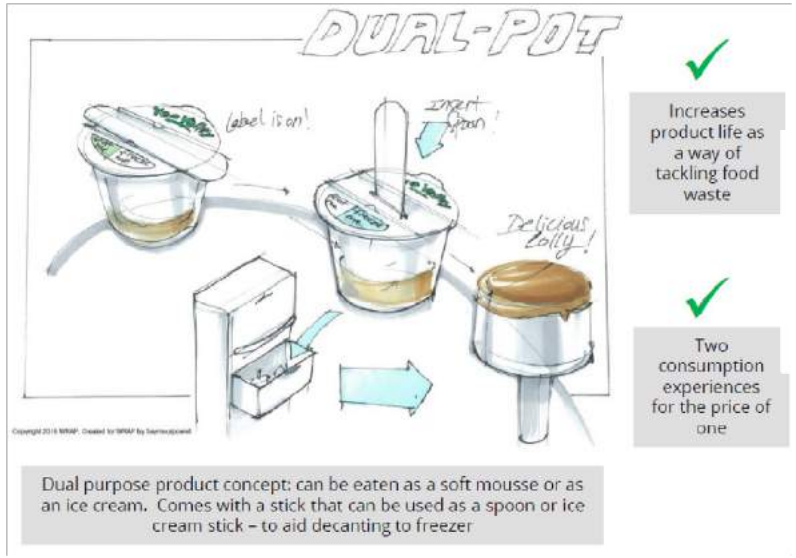


Example implementation companies:

Supermarkets and brands

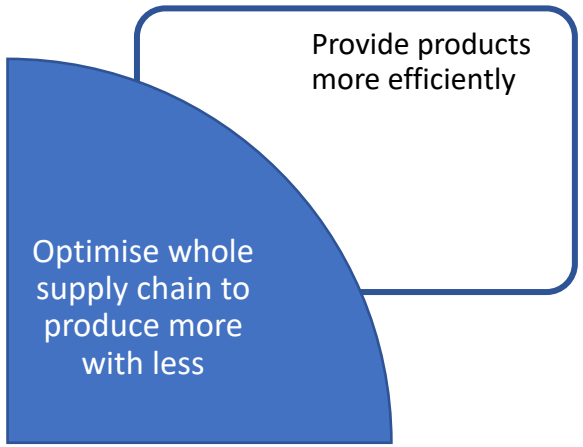


Supermarkets, brands & food service



Yeo Valley

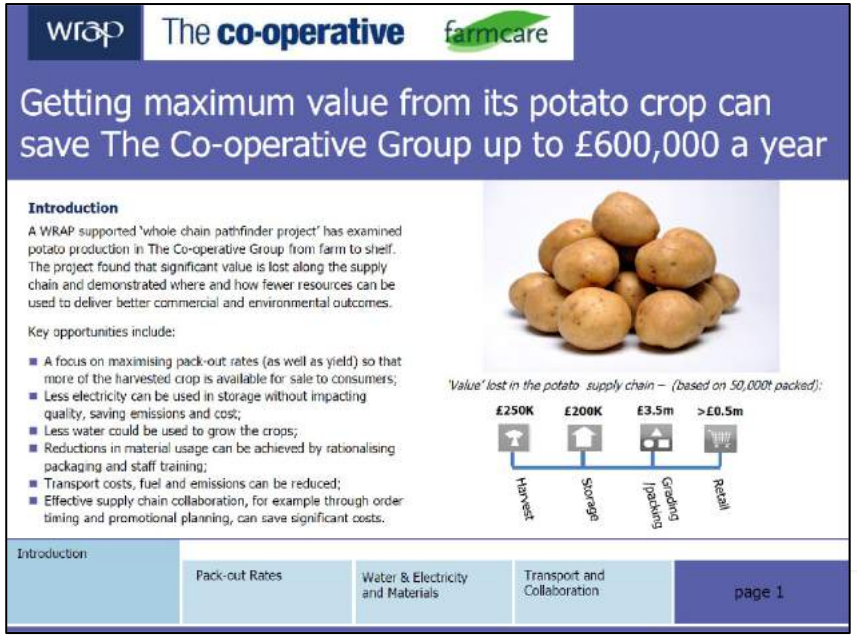
Optimise whole supply chain to produce more with less



Whole chain resource efficiency

- Value chain waste mapping
- Lean and green auditing
- Solutions development, piloting and embedding / mainstreaming

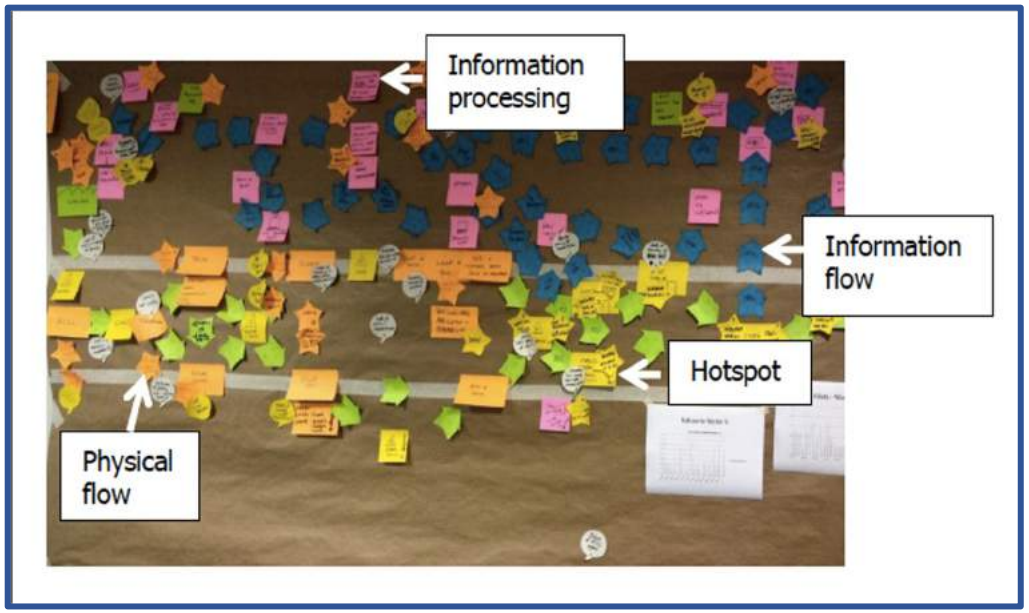
Farm-to-fork approach



AUD $1.2m of savings per 50,000t of potatoes

- 15% reduction in packhouse loses and 5% increase in crop utilisation by challenging varietal norms and size specifications
- Trickle tape irrigation reduced water use by 30% and increased yield by 4%, as well as leading to crop quality improvements
- 15 refrigerated stores moved to Best-in-Class operation, saved 1M kWh a year
- Transit packaging changes saved AUD$74K a year

Value chain waste mapping process



01 Problem definition

02 Mapping exercise

03 Hotspot analysis

04 Root cause analysis

05 Solution generation

06 Trial/embed change

Influence consumer and business behaviours

Influence consumer & business behaviours and reduce food waste

Help people to get more value from the food & drink they buy. Support business culture change process.

Consumer insight

- Behavioural / attitudinal analysis study and behavioural baseline setting (stated behaviour)
- Household food waste compositional analysis (actual behaviour)
- Regular tracking of attitudes, knowledge and behaviours

FFW CRC ENGAGE

Consumer-facing campaign

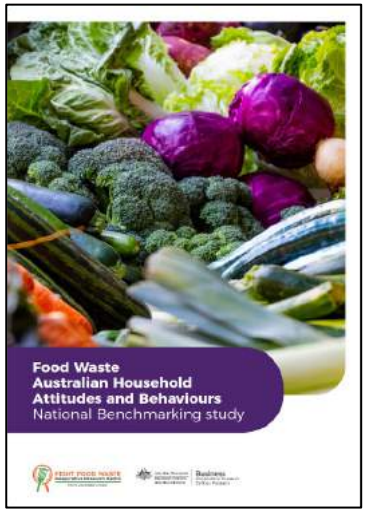
- Love Food Hate Waste campaign
- Fight Food Waste campaign
- Complementary food business campaigning
- States and Territories activation
- Local Government activation
- Specific themes & messaging to drive change in key behaviours

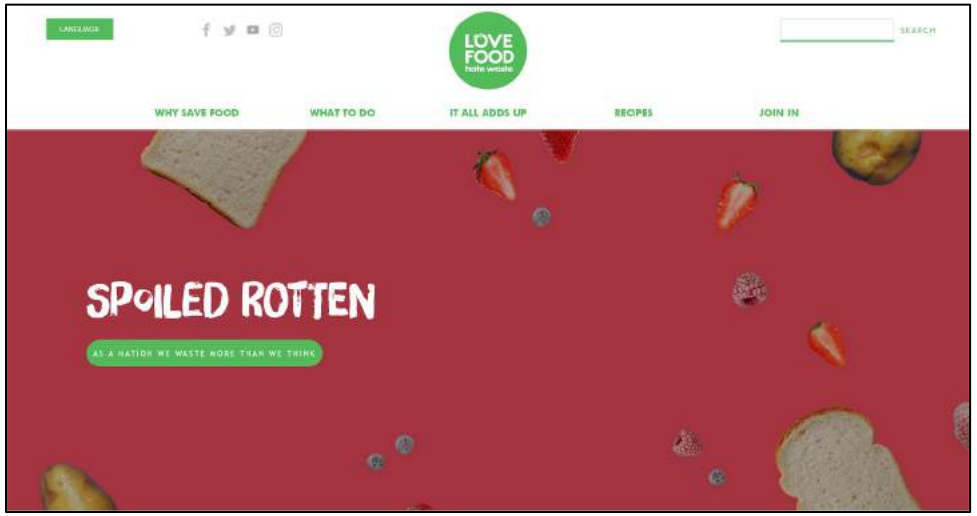
LFHW, Fight Food Waste, etc.

Business-facing campaign

- Guardians of Grub (industry)
- Individual food business activation
- Potential for States and Territories to coordinate activity in key production zones
- Specific themes & messaging to drive change in key behaviours

Guardians of Grub, etc.





Making the best use of waste and surplus food

Find innovative ways to make the best use of waste and surplus food

Get more value from waste and surplus food and drink

Waste valorisation projects

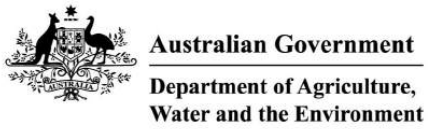
- FFW CRC TRANSFORM program
- Waste valorisation roadmaps
- Industry pilots to support commercialisation of co-products
- Circular economy concepts

FFW CRC, CSIRO, Int'l

Food rescue & peer-to-peer

- Scaling existing programs
- Tech/app-based solutions – e.g. Food Cloud/OzHarvest Food app, Olio and other sharing economy platforms

Food rescue/relief organisations



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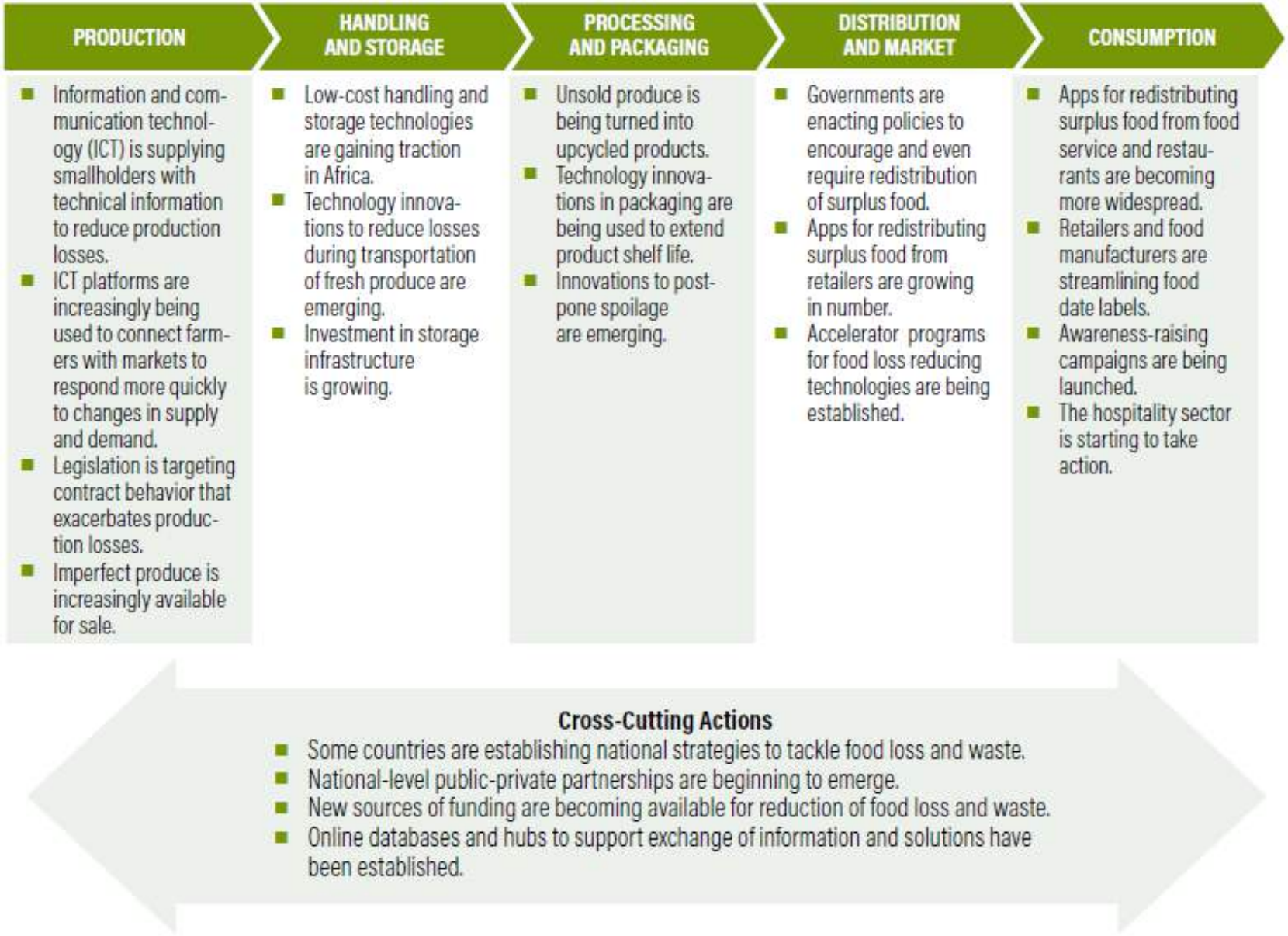
Reducing food loss and waste across the value chain



Source: World Resources Institute – Creating a sustainable food future – Reducing food loss and waste (consolidated report 2019).

Stop Food Waste Australia

Making the business case for action

"Food loss and waste – an A$25 billion opportunity by 2030. Reducing food loss and waste presents a major opportunity to enhance production and unlock new value addition."

Source: FIAL– Doubling Australian Food and Agribusiness by 2030 (Sept 2020)

Research in 17 countries around the world has shown that **half of the businesses achieved a return on investment for food waste prevention programmes of 14 to 1 or better**, with 99% of activities delivering a net positive return. Working together, as part of a voluntary commitment program, businesses can achieve real change faster and more cost-effectively.

Source: Champions 12.3 – The business case for reducing food loss and waste (2017)