

Australian Dairy Processors

Commitment to a sustainable future

Industry case studies and stories of success



Acknowledgement of Country

Australian Dairy Products Federation acknowledges the Traditional Owners of Country throughout Australia. We pay our respects to Elders past and present.

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Securing a sustainable vibrant dairy industry

For Australian Dairy Processors sustainability is more than a requirement, it's a commitment to ensuring the Australian dairy industry continues to be one of the best in the world.

Dairy processors are tracking, measuring, and reporting on emissions reductions, sustainable packaging, human rights and much more.

Efficiency and sustainability are key topics on every processor's agenda and as an industry we have made significant and impressive headway.

In 2022/23 dairy processors generated on average **125.5t CO₂e** of greenhouse gas (GHG) per ML of raw milk processed. A reduction in emissions intensity of **10.4 per cent** from 2015/16, **29.8 per cent** since 2010/11 and a reduction in absolute emissions of **37.8 per cent** since 2010/11.

We are diverting **85 per cent** of waste from landfill, towards a target of 100 per cent by 2030 and have made significant progress towards a target of 100 per cent reusable, recyclable or compostable sustainability packaging by 2025.

The Australian dairy industry is vital to our nation's economy, food security, and regional development.

We know sustainability is key to achieving our goal of a strong, vibrant Australian dairy industry and to keep dairy manufacturing local.

Our achievements are strong. Our industry worthy of investment.

This report features a collection of industry results and examples of ground-breaking initiatives Australian dairy processors are driving to cement their sustainability credentials.

Our sustainability journey

Australian dairy promises to provide nutritious food for a healthier world. Through the Australian Dairy Industry Sustainability Framework we report against our promise and commitments to: **enhancing livelihoods; improving wellbeing; providing best care for animals;** and **reducing our environmental impact.** The framework sets goals and targets that align to the United Nations Sustainability Development goals and has the same 2030 timeline horizon. These are:

Enhancing livelihoods

- 01 Increase the competitiveness and profitability of the Australian dairy industry
- 02 Increase the resilience and prosperity of dairy communities
- 03 Provide a safe work environment for all dairy workers
- 04 Provide a productive and rewarding work environment for all dairy workers

Improving wellbeing

- 05 All dairy products and ingredients sold are safe
- 06 Dairy contributes to improved health outcomes for all Australians

Providing best care for animals

- 07 Provide best care for all animals for whole-of-life

Reducing our environmental impact

- 08 Improve land management
- 09 Increase water use efficiency
- 10 Reduce greenhouse gas emissions intensity
- 11 Reduce waste

Governance

The Australian Dairy Industry Council (ADIC) is the peak national representative body of the dairy supply chain, made up of two constituent bodies: Australian Dairy Farmers (ADF) and the Australian Dairy Products Federation (ADPF).

ADIC has overall responsibility for the framework — setting and reporting progress against its targets and performance measures.

Dairy Australia, the industry-owned national service body, facilitates and supports the ADIC in developing and implementing the framework.

A steering committee was established in 2012 to drive the ongoing development and implementation.

Securing a sustainable Australian dairy processing industry

For Australian Dairy Processors sustainability is more than a requirement, it's a commitment to ensuring the Australian dairy industry continues to be one of the best in the world. Efficiency and sustainability are key topics on every processor's agenda and as an industry we have made significant and impressive headway.

REDUCING EMISSIONS



OUR TARGET

A **30%** reduction in GHG emissions intensity by 2030 (2015 baseline).

OUR RESULTS

In 2022/23, dairy processors emission intensity was down 10.4% from 2015/16; 29.8% since 2010/11; and a 37.8% drop in absolute emissions.

SUSTAINABLE PACKAGING

100% packaging to be recyclable, compostable or reusable by 2025.

The release of the **Australian Dairy Packaging Roadmap** was a world first plan to deliver a sustainable approach to packaging. Its current focus is on soft plastics, increased recycled content, and reducing the pigment in milk bottle caps.

DIVERTING WASTE FROM LANDFILL

100% of dairy processors waste will be diverted from landfill by 2030 (81% baseline).

85% of waste is diverted from landfill by dairy processors. A consistent achievement since the baseline of 81% in 2015/16 and a strong improvement from 2016/17 when this figure dropped to 61%.

REDUCING FOOD WASTE

The dairy industry aims to **halve food waste** by 2030.

The **Dairy Food Waste Action Plan** provides **10** actions to support progress towards this target. Actions one and two are underway.



Here's some context

The annual reduction in GHG emissions processors have achieved since 2010/11 levels is equivalent to removing almost 135,000 cars from the roads each year.

To offset this amount of CO2 emissions, about 28 million trees would need to grow for one year.

Can you imagine almost 30,000 20-foot shipping containers?



That's the volume of food waste that will be saved annually by Australian dairy processors achieving their food waste goal.

The amount of waste diverted from landfill by Australian dairy processors equates to about 750 garbage trucks.



Making serious sustainability headway

REDUCING EMISSIONS

Noumi's solar array in Shepparton is supplying 25% of the site's power and they're targeting 100% renewable electricity by 2030.

Saputo Dairy Australia is ramping up renewable power purchasing and expects 46% offset by 2025, saving 61,000 tonnes of CO₂e annually.

Bulla reduced scope one and two emissions intensity by 42%, from 2011 to 2022.

Australian Consolidated Milk (ACM) is upgrading its wastewater treatment system to utilise whey permeate to produce biogas that will become the primary, self-generated source of electricity and gas for the factory.

Burra Foods sources more than 90% of its electricity from wind and solar farms and has invested in technology and improved boiler sequencing to reduce gas consumption by 5%.

SUSTAINABLE PACKAGING

More than 86% of **Fonterra Australia** packaging is recyclable and the processor has 26 sustainable packaging projects underway impacting about 250 products.

Brownes Dairy implemented the "Sign on Glass" initiative that reduced paper usage by about 1.2 million pages or 6.8 tonnes (in just 11 months).

In 2022 **Lactalis Australia** made weight reductions in milk and beverages bottles and transferred from white to brown external liners. This reduced plastic by 8.27 tonnes, to achieve a total overall plastic reduction of 112 tonnes.

Bulla has reduced the length of ice-cream sticks by 20mm reducing the amount of wood used by 17.6%.

DIVERTING WASTE FROM LANDFILL

Kyvalley Dairy Group has reduced its feed waste by 10%, by moving grain and canola into silos.

Bega Group recorded a diversion rate of 92% from landfill in FY23. Achieved by improving bottle quality resulting in less waste and circular initiatives sending peels, food waste and peanut shells for stock feed and composting.

REDUCING FOOD WASTE

In 2022 **Lactalis** donated 1.4 million meals to Foodbank. In 2023 almost 1.3 million meals were provided and 230,000 litres of milk.

On top of donating meals, **The a2 Milk Company** financially supported Foodbank's School Breakfast Program.

DRIVING WATER EFFICIENCY

In FY23, **Saputo** invested in 12 projects across the globe with potential to save more than 1,000,000 m³ of water annually.

A \$3.5 million investment at **Fonterra's** Stanhope site is expected to save 165ML of water per year. The processor also saved 90ML at Darnum and 30ML at Cobden.

Bega's water withdrawal has gone from 3601ML in 2021 to 3394ML in 2023. Water generation has reduced from 3806ML in 2021 to 3585ML in 2023.

ACM's water savings projects will recover 30ML per year from its Girgarre operations annually.

Noumi's operational excellence program will bring savings in water and chemical use.

Kyvalley Dairy Group has completed on-farm irrigation upgrades to 40ha of its Waaia property.

Brownes' developed targets for water reduction and wastewater treatment and allocated \$250,000 in the next two years to achieve.

Our success: Reducing carbon emissions

For Australian dairy processors reducing greenhouse gas (GHG) emissions is not only beneficial for the environment, but it makes good business sense. Reducing GHG emissions can lead to cost savings, it means regulatory compliance, it increases consumer appeal on the domestic and global market and helps ensure our long-term sustainability.

Our processors are committed to achieving a 30 per cent reduction in GHG emissions intensity by 2030 and they are making serious headway.

Processors are improving operating efficiencies, transitioning to renewable energy, turning waste into energy (bioenergy), decarbonising fleets, and optimising transport activity.

The a2 Milk Company (a2MC) commissioned and completed a GHG emissions reduction study at its primary Australian milk processing facility at Smeaton Grange, New South Wales and is using green energy or equivalent electricity supply contracts at all sites where available, which included Sydney, Melbourne and Smeaton Grange.

Bulla reduced scope one and two emissions intensity by 42 per cent, from 2011 to 2022. Initiatives focused on equipment optimisation as well as exploring renewable electricity sources such as solar on manufacturing sites to better manage and reduce energy usage.

Kyvalley Dairy Group is compacting HDPE bottles, LDPE, HPDE and cardboard on site before its transported. This not only reducing the frequency of waste transport (and the emissions associated with transport), for LDPE the processor can fit 15 times the amount of waste into the same volume.

Burra Foods sources more than 90 per cent of its electricity from wind and solar farms and has invested in optimisation technology and improved boiler sequencing to reduce gas consumption by five per cent.

Through the **Burra Foundation**, the processor has invested more than \$300,000 to community clubs, volunteer and sporting organisations across Gippsland to support the sustainability, vibrancy and inclusion of their local communities.

Brownes' Dairy has committed to a 30 per cent reduction in carbon emissions at its processing sites versus its baseline year and is achieving this by correcting power factor resulting in higher operating efficiency; increasing equipment capacity; upgrading refrigeration and insulation; using battery forklifts and exploring solar and battery energy systems.

Driving environmental initiatives

Bega Group has implemented an Energy Management Capability (EMC) program, which started in FY18. In FY23 five more sites completed energy mapping to help identify efficiencies including energy monitoring and metering installation contributing to a 14.9 per cent reduction in emissions.

Saputo Dairy Australia continues to ramp up its large-scale renewable power purchasing agreement and is expected to enable 46 per cent of its electricity consumption in Australia to be offset with renewable energy by 2025. This will result in saving 61,000 tonnes of CO₂e annually, which represents a five per cent reduction in their global CO₂ footprint by FY25 compared to the FY20 baseline.

In 2022 **Fonterra Australia** achieved a 30 per cent reduction in scope one and two emissions (manufacturing and transport) from their 2018 baseline. Fonterra then increased its emissions reduction target to 50 per cent by 2030 and is on track to meet this target.

Fonterra has achieved these results by:

- voluntarily switching off using coal combustion in 2012
- removing the most ozone-depleting refrigerants (R22) from all Australian operations
- closing an old site and redirecting the milk to more efficient processing sites
- commissioning a small solar system on the admin building the Darnum site in Gippsland, and
- replacing on site gas fired co-generation at Wynyard with cleaner grid energy.

Lactalis Australia is reducing transport and logistic emissions by reducing transport activity, optimisation via fuller loads, order frequency reviews and larger carrying capacity trailers. Lactalis is also reducing carbon intensity by developing alternative fuel solutions.

The solar array installation at **Noumi** in Shepparton is now supplying 25 per cent of the site's power. But the processor isn't stopping there, **Noumi** is targeting 100 per cent renewable electricity at Shepparton and Ingleburn by 2030.



Bega Circular Valley Program



The 'Bega Circular Valley 2030' program is a transformational regional development initiative with a vision to establish the Bega Valley as the most circular regional economy by 2030.

Underpinned by a transition to renewable energy and materials, a circular economy is based on three principles, driven by design:

- eliminate waste and pollution
- circulate products and materials at their highest value, and
- regenerate nature and social systems.

A transition such as this improves the resilience of regional communities.

The Regional Circularity Cooperative (RCC) was established as an independent body in 2021 to drive this transition. The RCC garnered strong partnerships with community, business, corporates, academia, and government, with all working together to demonstrate transition pathways through pilots in the Bega Valley.

The RCC developed a roadmap and specific project business cases to shape the work going forward.

A collaborative approach to affect real change

Key current projects include:

- The building of a **National Circularity Centre** in Bega that will be a beacon for local, regional and national efforts and, amongst other things, serve as a circularity education centre. The NSW State Government provided \$14 million in funding for this project, and Bega is providing in-kind support, as well as a funding and land contribution.
- The **Circularity in Fisheries and Aquaculture Program** funded by the Fisheries Research and Development Corporation. A national program to build awareness of circular economy opportunities in this sector, it works with all parts of the supply chain to build capacity to implement practices to assist with the transition to a circular economy.
- A **decarbonisation in agriculture partnership** to work with farmers to identify pathways to a lower carbon footprint.
- An **emerging multi-stakeholder partnership** to look at local and regional strategies to manage plastic and organic waste streams in a circular fashion.

There are many other projects and partnerships in development, and it is increasingly clear Bega is an ideal 'sandpit' to test and demonstrate practices and technology that will assist with the broader national transition to a circular economy.

Baselining circularity in the Bega Valley is the next big challenge. Importantly, the RCC harnesses existing community and business activity in the Bega region and beyond to build the collaborative approach necessary to affect real change.



Australian dairy first at ACM Girgarre

In a progressive step towards greater sustainability, Australian Consolidated Milk (ACM) is upgrading its wastewater treatment system at Girgarre.

The upgrade will utilise whey permeate, a by-product of the cheese making process, to produce biogas.

It is an Australian first in the dairy industry to use a two-stage anaerobic digestion system with three-tank style digestors and a 36ML covered anaerobic lagoon.

The produced biogas will become the primary, self-generated source of electricity and gas for the factory.

When fully operational, natural bacteria will convert the gases produced by the whey into clean and sustainable energy to power the plant.

As the whey by-product is constantly fed into the system, it will be self-supporting and produce 80 per cent of the site's current electricity and 50 per cent of natural gas requirements to support ongoing production.

This results in a reduction of about 3500 tonnes of CO₂e scope one emissions and 9000 tonnes CO₂e scope two emissions per year.

This emissions reduction is equivalent to about 3000 cars being taken off the roads per year.

The self-generating energy from the major upgrade will deliver many benefits to ACM and the local community.

Brownes boiler upgrades

Brownes Dairy identified an opportunity to reduce energy consumption at its Balcatta site by upgrading their boiler systems.

By replacing the existing boiler and implementing a new electronically controlled burner management system Brownes was able to reduce fuel usage.

Further efficiency improvements were made by adding oxygen trim and variable speed drive (VSD) control options, reducing excess air levels, resulting in a better fuel to air ratio which reduced gas consumption by three per cent and allowed the fan to consume less power.

The variations in motor speed also led to a decrease of sound levels which eliminated the need for sound reduction measures in the plant. Overall, the upgrades saw a reduced gas consumption of 18,031GJ.



The statistics

THE TARGET:

30%

A **30%** reduction in GHG emissions intensity (from a baseline of 2015/16) by 2030.

THE RESULTS

37.8%

Manufacturers generated an average **125.5t** CO₂e of GHGs per ML of raw milk processed in 2022/23. This equates to an emissions intensity reduction of **10.4%** from 2015/16, **29.8%** since 2010/11 and a drop in absolute emissions of **37.8%** from 2010/11.

THE EMISSIONS REDUCTION ACHIEVED ANNUALLY (RELEVANT TO 2010/11 LEVELS) IS EQUIVALENT TO ABOUT

135,000 CARS

28M TREES

- 135,000 cars each year, or
- annual energy use of about 96,000 homes.
- To offset this amount of CO₂ emissions, about 28M trees would need to grow for one year.



Our success: Moving to sustainable packaging

Processors are dedicated to meeting their packaging targets. They're reducing single use plastic, designing for end-of-life recycling, and integrating recycled content into packaging. Our packaging roadmap contributes to 'the vision' for Australia's packaging future, a future that recognises our planet has finite resources to meet our increasing consumption.

More than 86 per cent of **Fonterra Australia's** packaging is recyclable. The processor has 26 sustainable packaging projects underway in Australia impacting about 250 products.

Fonterra is also reducing packaging from its products, including saving 47 tonnes of cardboard each year by removing the cardboard sleeve from its Mainland On The Go Lunch snacking range.

More than 88 per cent of **Bega Group** packaging was reusable, recyclable, or compostable and the recycled content of their packaging reached almost 35 per cent.

Bega has removed polyvinyl chloride (PVC) packaging from their cheese slice clamshell packaging and has started rolling out new packaging, consisting of up to 30 per cent post-consumer recycled polyethylene terephthalate (rPET).

Improving circularity outcomes is important to **Brownes Dairy** with more than 97 per cent of packaging recycle-ready and 30 per cent containing some recycled content. In 2023 they implemented initiatives such as moving all PET bottles to 100 per cent post-consumer recycled polymer which saw a reduction of 180 tonnes virgin plastic being put onto the market and transitioning crate stocks (**Brownes** supplies more than 50 per cent of its volume to customers in returnable crates) to 100 per cent post-consumer recycled PP crates.

About 92 per cent of **Bulla's** packaging is recyclable. The company also participates in a pallet return system, a plastic pallet return system, all chemical drums are returned for reuse and ink cartridges and batteries are recycled.

100 per cent of **Noumi's** packaging is Australian Packaging Covenant Organisation compliant to be reusable, recyclable or compostable by 2025.

Saputo Dairy Australia introduced CHEER 250g refill slice packs in early 2024, resulting in 80 per cent less plastic due to the clam shell removal from the packaging.

Fonterra unwraps mozzarella



Each year, more than 12,000 tonnes of Perfect Italiano Mozzarella embark on a journey from **Fonterra Australia's** Stanhope manufacturing site in northern Victoria to be expertly shredded at its secondary processing site in Tullamarine, Melbourne.

From there, it tops millions of pizzas across Australia and travels to countries including Singapore, Malaysia, and Hong Kong.

Traditionally, transporting this massive amount of cheese in hefty 10kg blocks for processing meant considerable packaging – including 600,000 cardboard cartons – so Fonterra set itself a challenge to cut out the cardboard on the route to Tullamarine.

in November, Fonterra introduced 'Naked Mozz' – a move that will spare a staggering 330 tonnes of cardboard each year, translating to annual savings of more than \$825,000.

The innovative initiative is just one of 26 sustainable packaging projects in progress.

Contributing to the processor's aim to ensure by 2025, 100 per cent of Fonterra Australia's dairy product packaging will be reusable, recyclable, or compostable.

Brownes: Tetra Pak Plant-Based Cartons

Brownes Dairy was the first company in Australia to use Tetra Pak's unbleached, fully renewable, plant-based board.

The paperboard is sourced from Forest Stewardship Council certified forests which means they are managed responsibly. The polymer lining is made from sustainable harvested sugarcane, reducing the reliance on traditional fossil fuel petrochemical PE.

The reduced layers in the Tetra Rex® Plant-based Craft Carton (three vs traditional five layers) makes these lighter in weight for efficient transport which in turn sees a 16 per cent reduced carbon footprint versus regular tetra cartons.

The manufacturing plant where Tetra Rex® Craft Plant-Based are produced is powered by 100 per cent renewable electricity.

In 2022 about 18 million cartons moved to this format.

Brownes also supports the offtake of recycled cartons from Tetra Pak's SAVEboard facility in NSW.

Its school tours room (which sees 8000 students come to the facility each year) and staff break facilities utilise these low carbon building products.



Bulla removes all polystyrene



Bulla's journey to remove polystyrene started in 2021 when it transitioned to paperboard for frozen cups products and polypropylene and PET for chilled cup products.

This eliminated 107 tonnes of problematic packaging. A solution for the final product category was sourced in 2022, resulting in zero polystyrene within the processor's packaging range.

The statistics

THE TARGET:

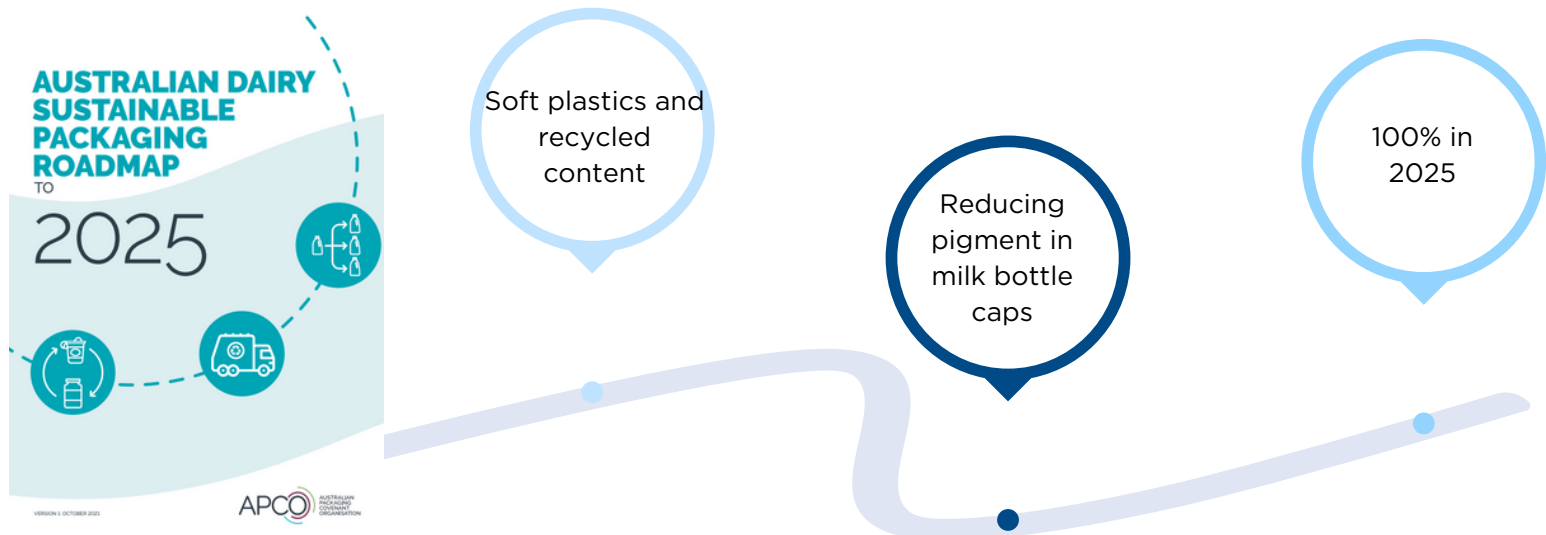
100%

100% packaging to be recyclable, compostable or reusable by 2025

THE RESULTS

ROADMAP RELEASED

The release of the **Australian Dairy Packaging Roadmap** was a world first plan to deliver a sustainable approach to packaging. Its current focus is on soft plastics, increased recycled content, and reducing the pigment in milk bottle caps.



Our success: Diverting waste from landfill

In FY23 **Bega Group** recorded a diversion rate of 92 per cent from landfill. This was achieved through a number of initiatives including: Improving the quality of bottles resulting in less waste being generated and circular initiatives sending peels, food waste and peanut shells for stock feed and composting.

In partnership with APR Plastics **Fonterra Australia** is expanding its soft plastic recycling program. Through this program, the Campbellfield site successfully diverted 120 tonnes of plastic waste from landfill in 2022/23.

Bulla measures, monitors and continually improves the environmental performance at all sites and across its supply chain. Through following the waste hierarchy to either avoid waste in the first place or recycling cardboard and plastic or diverting to compost, **Bulla** has continuously reduced landfill year-on-year since 2011.

Noumi's Trade Waste Solids at Shepparton are removed from the effluent stream, dewatered and used as an animal protein supplement. No dairy solids are sent to landfill.

Kyvalley Dairy Group has reduced its feed waste by 10 per cent, by moving grain and canola into silos.

In 2022 **Brownes Dairy** implemented a warehouse and distribution improvement initiative to manage proof of deliveries to customers. Since the project was implemented, paper usage has reduced by about 2.5 million pages or 13 tonnes of paper. The project has been rolled out across the entire metro distributor network, with 90 per cent of orders now delivered with the Sign on Glass technology.

In 2022 alone **Lactalis Australia** reduced plastic by 8.27 tonnes, to achieve a total overall plastic reduction of 112 tonnes. This was achieved through weight reductions in milk and beverage bottles and transferring from white to brown external liners.



Fonterra almost halves waste sent to landfill

Fonterra Australia is now diverting a whopping 900 tonnes of materials into more beneficial uses.

So how did they do it? They reduced the amount of food waste generated across distribution warehouses by 80 per cent – or about 450 tonnes.

This was achieved by introducing a new approval process for scrapping stock and changing the way inventory is managed.

With the exception of butter mini-dishes, Fonterra Australia has eliminated its reliance on landfill for food disposal.

Inedible food waste is diverted to stockfeed or composted into garden products creating a closed loop, while also reducing the generation of harmful greenhouse gas emissions.

The segregation of waste has also been improved across the manufacturing network to make it easier to separate packaging materials such as cardboard and pallet wrap.

These materials are mechanically processed into new products such as egg cartons and building industry materials (like piping and slab membranes), or chemically processed with the plastic oil refined into new products.



Bulla thinks WAY outside the box

When it comes to thinking outside the box, Bulla is a great example. The processor is going as far as looking at the length of its ice-cream sticks to reduce waste and environmental impacts.

The existing ice-cream stick used in the Bulla every day single serve range of ice cream products is currently 113mm in length.

Working with their supplier an opportunity was identified to change this to a 93mm stick, reducing the length by 20mm and the amount of wood being used by 17.6 per cent.

The statistics

THE TARGET:

100%

100% of manufacturers waste will be diverted from landfill by 2030.

THE RESULTS

85%

85% of waste is diverted from landfill by dairy processors. A consistent achievement since the baseline of **81%** in 2015/16 and a strong improvement from 2016/17 when this figure dropped to **61%**.

THE AMOUNT OF WASTE DIVERTED FROM LANDFILL BY AUSTRALIAN DAIRY PROCESSORS EQUATES TO:

750 GARBAGE TRUCKS



Our success: Reducing food waste

About 0.92 million tonnes of potential dairy food waste is generated across the supply chain each year in Australia. For manufacturers the cost is about \$700 million annually to manage, with an additional \$120 million of revenue lost from wasted finished products.

Processors are investigating technology solutions that turn processing waste and packaged goods into animal feed, increasing options for more dissolved air flotation (DAF) sludge to be composted and supporting the food rescue sector.

Bega Group donated the equivalent of 1.6 million meals to people in need through its partnership with Foodbank in 2023

In 2023 **Saputo Dairy Australia** donated almost 600,000 meals and about 250,000 litres of milk to Foodbank to ensure those who are struggling can put a meal on the table and groceries in their cupboard.

On top of donating meals to Foodbank, **The a2 Milk Company** also provided financial support to Foodbank's School Breakfast Program, which provides a healthy breakfast for school children who would otherwise go without.

In 2022 **Lactalis Australia** donated 1.4 million meals to people in need through its partnership with Foodbank. In 2023 almost 1.3 million meals were provided, along with 230,000 litres of milk.

Each year **Fonterra Australia** donates 250,000 litres of milk to Foodbank and 23,000 litres of milk to Western District Foodshare in Victoria. In 2023 the equivalent of 325,400 meals were also donated to people in need.

In 2023 **Brownes Dairy** donated the equivalent of 139,000 meals to West Australians in need through their partnership with Ozharvest.

For two years running, **Bulla** has partnered with Coles and not-for-profit Second Bite to raise more than \$1 million to provide millions of meals to those suffering food insecurity throughout Australia.



Australian dairy industry's plan to half food waste



In July 2023, the Australian dairy industry launched the Food Waste Action Plan. The plan provides ways to assess and recommend commercial and practical food waste reduction opportunities across the dairy supply chain.

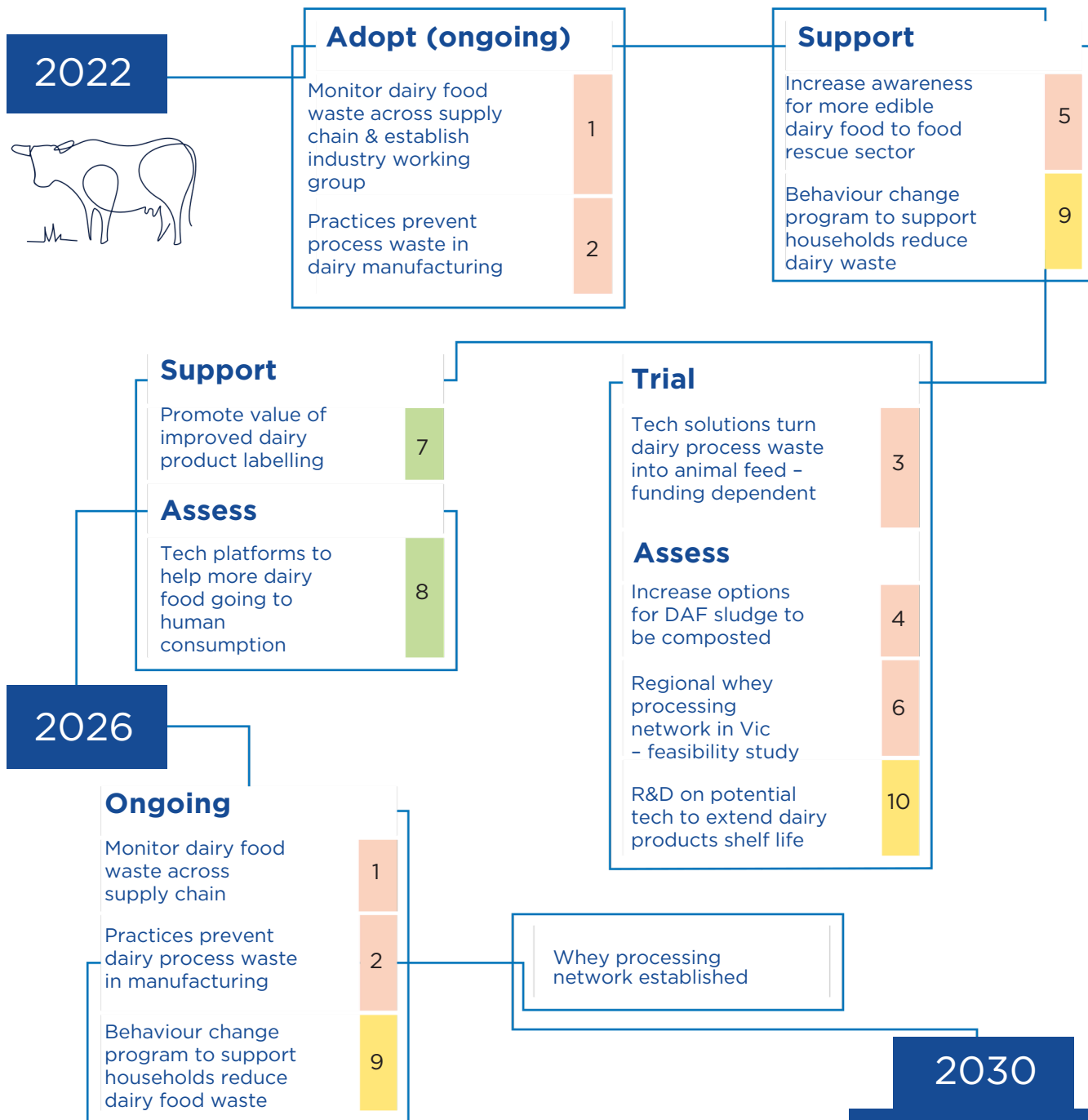
Through development of the action plan, the industry has gained unique insights into where, what, and how much food waste is occurring and identified **10 key actions** to reduce waste, reduce environmental impacts, and reduce costs.

The 10 priority actions include investing in research and development and technical solutions for dairy manufacturing sites, implementing efficient inventory management systems to monitor and report on waste, partnering with food rescue organisations, promoting sustainable packaging solutions, and educating consumers through product labelling and storage advice – behaviour changes across the supply chain.

Collectively and collaboratively, the action plan sets the Australian dairy industry up for success.

Roadmap to reach 2030 target

The following roadmap highlights the potential journey for the dairy industry to reach the 2030 target of halving Australia’s food waste. Ongoing communication and support from all dairy industry organisations, the food rescue sector, not-for-profit organisations and government will ensure effective delivery of solutions to meet the 2030 target.



Dairy sector

- Manufacturing
- Distribution and retail
- Food service and household



Action number according to implementation plan

Lactalis: Reducing waste and giving meals to Australians in need



In the past two years **Lactalis Australia** has provided almost 2.7 million meals, and 230,000 litres of milk to Australians in need.

The innovative program is one way Lactalis is working to achieve the Dairy Industry Sustainability Framework target of halving food waste by 2030.

Through changes to operating procedures and ongoing community partnerships, **Lactalis** has made significant steps to responsibly manage food waste.

The group is now redistributing edible food through the Foodbank program.

In 2022 a massive 4,849kg of product was diverted from landfill, equating to an 11 per cent reduction in warehouse waste and also reducing landfill emissions.

Donations include fresh milk, yoghurt and dairy desserts.

The statistics

THE TARGET:

HALVE FOOD WASTE

The dairy industry aims to halve food waste by 2030.

THE RESULTS

OUR PLAN

The **Dairy Food Waste Action Plan** provides 10 actions to support progress towards this target. Actions one and two are underway.

THE AMOUNT OF CONTAINERS THAT WOULD BE NEEDED TO STORE THE FOOD WASTE AUSTRALIAN DAIRY PROCESSORS WILL SAVE ANNUALLY BY ACHIEVING THIS GOAL.

30,000 20-FOOT SHIPPING CONTAINERS

Our success: Water efficiency

Dairy processors are actively monitoring water consumption and developing opportunities to recycle water.

The intensity of water consumption has increased as processors contend with a shrinking milk pool, which has led to sub-optimal efficiencies, such as more frequent cleaning regimes due to smaller production lines.

In 2010/11 processors water intensity rate was **1.75L** consumptive water per litre of milk processed, in 2022/23 this increased to **2.02L/L** of milk. They remain committed to a target to reduce their consumptive water intensity by **30 per cent** by 2030 (2010/11 baseline).

In FY23, **Saputo Dairy Australia** continued to invest in water-saving projects, which included the installation of 12 projects across its global network with the potential to save more than 1,000,000 m³ of water annually.

Kyvalley Dairy Group has completed on-farm irrigation upgrades to 40ha of its Waaia property to use irrigation water more efficiently.

Australian Consolidated Milk has completed a water recovery project that will recover 30ML per year from its Girgarre operations.

By developing water mapping and mass balance projects at all facilities to better understand how water is used and recovered in the manufacturing process, **Bega Group's** total water withdrawal has gone from 3601ML in 2021 to 3394 in 2023. Water generation has also reduced from 3806ML in 2021 to 3585ML in 2023.

A recent \$3.5 million investment at **Fonterra Australia's** Stanhope site is expected to save 165ML of water per year as part of a caustic recovery project. Fonterra has also saved 90ML at Darnum and 30ML at Cobden through delivery of projects such as:

- RO concentrate reuse
- improvement to operation of evaporator vacuum pumps, and
- water reuse and improved and optimised CIP processes.

Brownes Dairy has developed specific targets for water reduction and wastewater treatment and allocated \$250,000 in the next two years for projects to achieve this. 2022 saw a 36ML water saving at the Balcatta site, due to infrastructure upgrades to retain and reuse water.

Noumi has introduced an Integrated Work Systems Operational Excellence Program across all sites, with savings in water and chemical use expected through the optimisation of manufacturing processes.

Saputo's pledge to accelerate sustainability projects

As part of **Saputo Dairy Australia's** pledge to accelerate global climate, water and waste performance by 2025, the processor is undertaking strategic projects to help deliver on its targets.

One such initiative is the recent installation of an innovative water filtration system at the facility in Smithton, Tasmania.

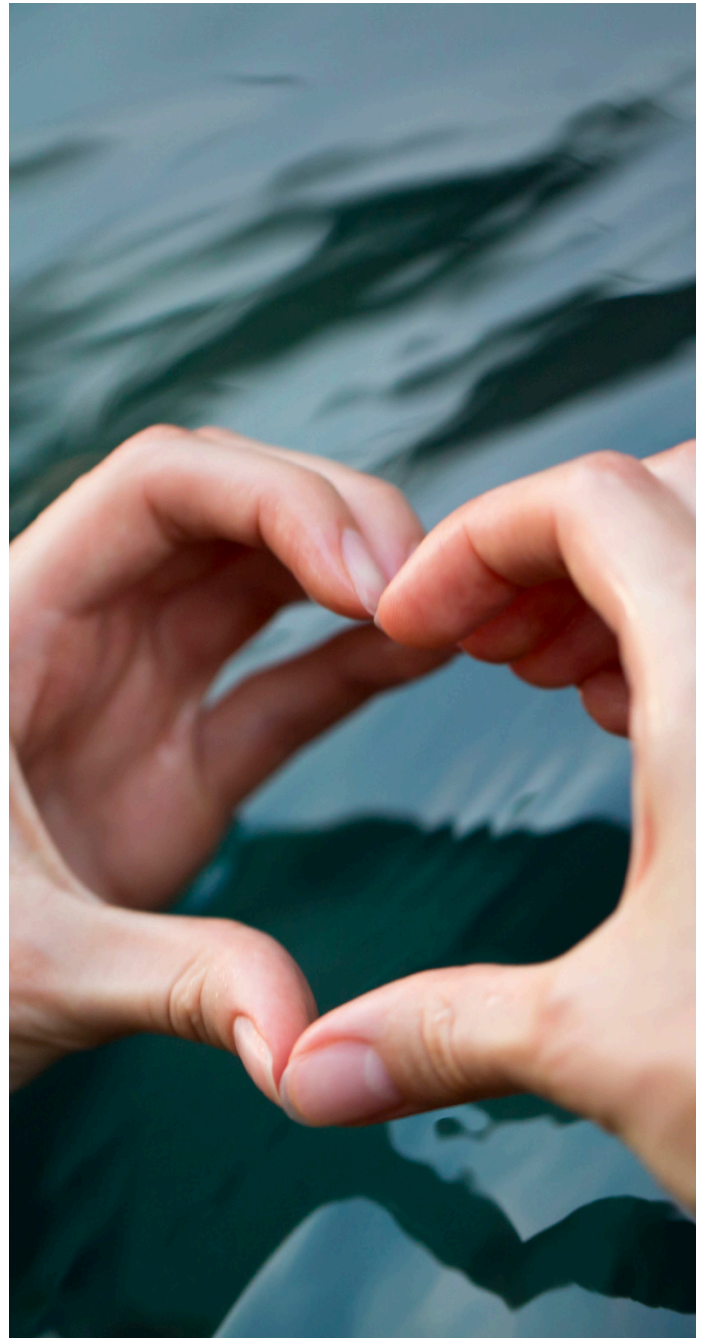
The new system allows the processor to reuse the water that evaporates from the milk inside the boiler during processing for steam production.

This means the boiler now runs exclusively on evaporator condensate instead of using the town's local water supply.

What's more, it has reduced water consumption by **38,400,000 litres per year** - the equivalent of **15 Olympic swimming pools!**

Beyond the water savings, the new filtration system will enable the boiler to run more efficiently, which, in turn, should help reduce energy consumption.

This initiative at Smithton moves Saputo one step closer to its global water and climate goals.



Sustainability is an opportunity

Australian dairy processors see a strong opportunity to position Australian dairy as a trusted partner of choice. We look forward to greater, whole of industry collaboration to ensure our industry is recognised as a leader in sustainability and climate action.



ADPF contributing members



Notes

ADPF contacts

Chair

John Williams

E: john.williams@adpf.org.au

P: 0419 349 302

Chief Executive Officer

Janine Waller

E: janine.waller@adpf.org.au

P: 0409 189 574

Communications Director

Kristin Favaloro

E: kristin.favaloro@adpf.org.au

P: 0438 670 762

For more information:

adpf.org.au

milkvalue.com.au

