

SUGAR PLUS

Fuelling the Future of Food, Energy and Fabrication



The future of the Australian sugarcane industry is bright, but it is not without challenge.

That's why representatives from across the industry's value chain have come together to co-develop an industry vision and roadmap, setting out how we can collaborate to strengthen and expand our important industry over the medium to long term.

The sugarcane plant is one of the most resilient and adaptable plants on Earth – it is the perfect ingredient to help fuel the future of Food, Energy and Fabrication



FOOD

- Plant-based foods
- Cellular fermentation
- Other sources

Food is where it all starts – raw sugar will continue to play an important role in feeding the world over the long term, and sugar is an important feedstock for the new generation of animal-free foods.



ENERGY

- Biofuels for heavy transport
- Energy from waste biomass

Energy that builds on current co-generated power and ethanol production can provide the next frontier of sustainable mobility and power. Sugarcane is a natural source for renewable energy and biofuels for heavy transport and aviation.



FABRICATION

- Bioplastics and biochemicals
- Biomaterials for packaging

Fabrication for the future – making products that enable a more sustainable way of life, including much-needed replacements for the many plastic items that are produced and used every day.

Our industry can position itself at the centre of an Australian Bioeconomy Superhighway

The technologies required are already available. Sugar can be converted into bioethanol, from which polyethylene (the largest type of plastic in use) can be made (other processes are possible).

The Sugar Plus vision represents potential for substantial long-term growth by expanding activities to address the very large bioeconomy markets, which can be created with the right collaboration across the industry and the right public policy support. The scale of this opportunity is enormous, as sugarcane and sugar are attractive and sustainable hydrocarbon feedstocks.

The objectives of our vision and roadmap

The Sugar Plus vision aims to improve the efficiency and reliability of the industry in the near term, and to provide a platform to achieve substantial growth over the medium to long term.

The near-term focus is to maximise the reliability and efficiency of existing production, while simultaneously improving environmental performance in an economically sustainable manner. This provides the platform on which the industry can expand to provide an ecologically sustainable domestic source of hydrocarbons so that Australia can meet 2050 net zero targets.

Over the long term, this could create a substantially larger industry, while also enabling Australia to become increasingly self-sufficient, thus improving both economic resilience and national security

It also illustrates the role that the industry can play in supporting Australia's long term economic development, including the importance of agricultural production in helping the transition to net zero across numerous industries.

To achieve our vision, the roadmap outlines actions that are needed at a range of levels:



Actions that can be taken at the individual farm level



Actions that can be taken at the local community level



Actions that require regional coordination and/or the support of a mill



Actions that require national leadership and coordination

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Our industry's vision is to become a vibrant, transforming industry, sustainably producing sugar and bioproducts at the heart of regional communities



Farms



Communities

<p>Reliability</p>	<p>Improve agronomic practices Improve varietal selection process Develop succession plans</p>	<p>Defend and grow land under sugarcane Improve access to inputs</p>
<p>Efficiency</p>	<p>Complementary crops Adopt new varietals/technology Better price risk management</p>	<p>Leverage group buying power Farming best practice initiatives Succession support/land transfer Equipment sharing</p>
<p>Scale</p>	<p>Alternative farming structures Reinvestment programme Business training to improve decision making</p>	<p>Support for new farmers Leasing land Support land consolidation</p>
<p>Growth</p>	<p>Adopt new farming technology Data to improve efficiency and profitability Diversify income sources</p>	<p>Advocacy – build support for the industry Improve access to finance Attract new talent to the sector</p>

Realising this vision and maximising this opportunity requires a strong focus on

RELIABILITY – Processing time
Processing time as a percentage of total crushing time after allowing for wet weather

EFFICIENCY – Return on total assets
Pre-tax profit generated in a given period, divided by the total assets used to generate that return

SCALE – Total cane harvested
A simple measure that captures output at a fundamental level (and is not directly affected by commodity prices)

Delivery of the Sugar Plus vision will require collaboration among

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Mill area



National and state

Support sugarcane land expansion
 Asset renewal programme
 (vertical and horizontal expansion)
 Transport efficiency review

Promote operational resilience education
 Data driven risk management
 Ensure plant breeding innovation
 Detailed profile industry participants profile to support decision making
 Consolidation of industry data to improve quality

Reliability

Long term mill efficiency initiatives
 Water efficiency initiatives
 Support soil health and crop rotation

Agricultural best practice incentives
 Resources to support industry collaboration
 Assist on-farm productivity
 Data and tools to support decision-making
 Incentivise on-farm technology adoption
 Promote more efficient water use

Efficiency

Incentivise sugarcane growing
 Productivity boards training programme
 (upskill advisors)
 Evolve long-term investment plans

Government/industry working groups to provide support and leadership
 Sustainability framework for agriculture
 Global study to grasp Australia's competitive advantage
 Analysis on competing land uses
 Incentivise sustainable expansion of industry

Scale

Improve varietal development and
 adoption strategies
 Invest in new value add products
 Facilitate local industry collaboration

Implement bioplastics plan to reduce waste
 New/improved water infrastructure
 Industry in-bound investment document
 Review FIRB rules for the industry and resolve investment barriers
 Develop biofuels plan addressing needs of various sectors

Growth

environmental benefits across the value chain. Six metrics will track success:

GROWTH – New capital invested

This should include the value of land under cane as well as investment in industry infrastructure and capital equipment

STAKEHOLDERS

Industry-wide engagement, tracked by a survey that measures industry support for ongoing implementation of the vision

SUSTAINABLE IMPACT

Overall contribution to reduction in national CO2 emissions and science-based targets to measure other environmental goals

existing stakeholders as well as involvement from new stakeholders

Additive to Australian agriculture

Implementation should not be disruptive to today's industry and is not designed to displace existing sugarcane and raw sugar production. Rather, the objective is to increase value added per hectare over the near to medium term, and through this maximise the opportunity to expand sugarcane production substantially over the medium to long term to meet emerging demand for new sustainable hydrocarbon sources.

1. Economically sustainable for all stakeholders

All proposed developments must be economically sustainable for all relevant stakeholders over the medium to long term



Farms



Millers



Customers



Communities



Government

2. Environmentally responsible along the entire value chain

The extent of expansion of agricultural production that would be required to enable Australia to reach net zero emissions highlights the importance of ensuring that the natural environment is protected



Water



Soil health



Biodiversity



Transport safety



Emissions

3. Near-term measures improve reliability and efficiency to create significant long-term opportunity

The industry roadmap summarises the near-term steps required to meet the industry's collective goals



RELIABILITY of production and processing



EFFICIENCY along the entire value chain



New opportunities with significant SCALE



Long-term, sustainable GROWTH for all

Our industry knows that these opportunities need to be pursued in a sustainable manner. We are committed to growth pathways that look after our people, the products we produce, and the planet.

To realise the Sugar Plus vision, the roadmap sets out measures to strengthen and build our industry, while charting a path to a bigger, bolder future for the businesses and communities at the heart of our industry's future in Australia. While some parts of this roadmap are focussed on better business-as-usual and adding value to current operations across the value chain, other parts are about the steps we need to take to unlock the vast opportunities presented by the bioeconomy.

Realising the opportunities will take significant effort and collaborative action across the industry, supported by the State and Federal Government.



The Sugarcane Industry Roadmap was jointly funded and supported by:

- Cooperative Research Centre for Developing Northern Australia
- Sugar Research Australia
- CANEGROWERS
- Australian Sugar Milling Council
- AgForce
- Australian Cane Farmers Association
- Queensland Department of Agriculture and Fisheries.

We acknowledge the work of Pottinger in undertaking extensive engagement across the industry supply chain to develop the roadmap.

Read the full report



Pottinger

To drive progress towards the Sugar Plus vision and roadmap, industry representative organisations will form a series of taskforces. Contacts for further information:

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