Innovation in the sugar industry

The Australian sugar industry is one of the largest rural industries in Australia, with sugarcane being Queensland’s largest agricultural crop. The viability of the Australian sugar industry hinges on its ability to increase its productivity and maintain its competitiveness. Factors affecting the Australian sugar industry’s competitiveness include business-related factors such as increasing costs, industry rationalisation, volatile world sugar prices and changing patterns of consumption. Enhancing technology innovation and adoption in the sugar industry will allow for new products and applications within the industrial biotechnology and biofuels sector generating market opportunities structured around global value chains. Developing these chains requires a robust innovation system supported by industry, governments and local and international companies. The project examines industry and policy settings that are required for the development of value chains for producing advanced biofuels and industrial biotechnology products from sugarcane.

Benefits for agriculture: As a price taker on the sugar commodity market, diversification into higher value-added products will increase revenues to the industry. This project examines not only the capabilities required by the sugar industry, but also examines government policy environments in which such investments have occurred internationally, and which may promote positive industry development in Queensland and Australia.

Benefits for producers: With the development of multiple value chains, increased stability of income will eventuate. Producers need certainty to make good decisions about future operations. With a clear industrial development path, biorefining could be undertaken by a range of businesses as has occurred in other regions internationally.
More information about this project

All major sectors of the economy operate through global networks linking producers, processors and customers around the world. Increased value for regional areas and producers can be captured by diversification into alternative networks. The overall aim is to assess the factors influencing innovation and innovation adoption in enhancing the competitive position of the Australian sugar milling industry within the global value chain. The objectives are:

1. Assess the level of innovation and technology adoption in the Australian sugar milling Industry and in comparison to key reference industries.

2. Identify the firm and industry capabilities that sustain and/or hinder innovation and innovation adoption related to advanced biofuels and industrial biotechnology products from sugarcane.

3. Identify the role government policy and other regional level factors have on promoting integration of the sugar industry with advanced biofuels and bioproducts.

4. Identify innovation pathways that enhance the success of the development of advanced biofuels and bioproducts based on sugarcane.

These objectives are examined in relation to the potential development of alternative value chains for the sugar industry.

Outcomes for industry

- Identification of government policy settings that promote industry development
- Potential for improved linkages across sectors to support growth
- Determine pathways for value chain development linking primary producers, biomass suppliers, biorefineries and customers

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Principal partners

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Program partners