



SCIENCE AND  
INDUSTRY  
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FUND



# STEM Community Partnerships Program

## Blacktown local scenario

### Agribusiness

Agribusiness is the business of agricultural production, farming, and the related commercial activities. These may range from the breeding of plant and animal stock, chemical use, machinery and equipment processing, packaging, distribution, and marketing.

The Australian Food and Grocery Council calculates that food processing and manufacturing in the five largest Western Sydney local government areas (which includes Blacktown) account for over 20,000 jobs within the area. Western Sydney has a long history of agriculture that predates colonisation. The local indigenous population utilised their knowledge and understanding of the land to harvest nutritional food from the rich and fertile lands of the Hawkesbury River system and surrounding areas.

The expansion of Western Sydney agriculture opportunities includes developing water and energy plans, establishing biosecurity protocols for exports & imports, as well as developing new education and research facilities in the area surrounding the Western Sydney International Airport. These industries include poultry, meat and eggs, dairy, vegetables, nursery cut flowers and turf. These industries will have an active role in sustainably feeding a global population. It is predicted that more food will be required in the next four decades than all farmers have harvested over the past 8,000 years.<sup>1</sup>

By co-locating food production, food processing and food transport facilities in the Aerotropolis (the industrial region surrounding the Western Sydney International Airport), the food supply chain could be reduced. There will be opportunities to use blockchain technology, the Internet of Things (IoT) and other digital platforms to improve efficiency, trust and reduce food waste. Technology can be used to connect and share data within a supply chain and maintain a record of the asset, providing traceability from farm to table. This will provide more diverse employment opportunities for the local workforce and the development of new skills in existing roles.

How your Council tackles the complexity of this issue impacts you and your community now and in the future.

### Your task

Your task is to use the information above and resources provided below as a start to identify a local problem and design a STEM-focussed solution.

(Question, Design, Explore, Communicate)



NSW government calling for a new crop of urban farmers for Western Sydney Parklands<sup>2</sup>

## Resources

### CSIRO research

- Mapping out Australia's food future, July 2017 <https://www.csiro.au/en/News/News-releases/2017/Mapping-out-Australias-food-future>
- Growth opportunities for Australian food and agribusiness <https://www.csiro.au/en/Do-business/Futures/Reports/Ag-and-Food/Opportunities-for-Food-and-Agribusiness>
- Australia's Biosecurity Future – preparing for the future biological challenges <https://www.csiro.au/en/Research/BF/Areas/Our-impact-strategy/Biosecurity-Future-Report>
- Time to beef up Agrifood supply chains, June 11, 2020 <https://ecos.csiro.au/time-to-beef-up-agrifood-supply-chains/>

### Reports

- Western Sydney Food and Grocery Manufacturing Economic Snapshot, August 2018, p21 <https://www.afgc.org.au/wp-content/uploads/2019/06/Food-and-Grocery-Manufacturing-Report-2018-Western-Sydney.pdf>
- Smart Cities Plan Western Sydney City Deal, December 2018 <https://www.infrastructure.gov.au/cities/city-deals/western-sydney/files/western-sydney-city-deal-implementation-plan.pdf>

### Articles and other resources

- <sup>1</sup> This tiny country feeds the world, September 2017 <https://www.nationalgeographic.com/magazine/2017/09/holland-agriculture-sustainable-farming/>
- NSW Department of Treasury Agribusiness and food <https://www.business.nsw.gov.au/industry-sectors/industry-opportunities/agribusiness-and-food>
- Regional Development Australia (RDA) Sydney, Agribusiness in the Greater Sydney Region, 2018 <https://www.rdasydney.org.au/agribusiness-in-the-sydney-region>
- Agribusiness precinct – Western City & Aerotropolis Authority <https://www.wcaa.sydney/agribusiness>
- <sup>2</sup> NSW government calling for a new crop of urban farmers for Western Sydney Parklands, September 2019 <https://www.commercialrealestate.com.au/news/nsw-government-calling-for-a-new-crop-of-urban-farmers-for-western-sydney-parklands-884928/>

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