



SCIENCE AND  
INDUSTRY  
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# STEM Community Partnerships Program

## Fairfield 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 Fairfield local government area is well positioned to benefit from agribusiness, with good transport links to southern, western, northern NSW and Sydney via road and rail. This will be further enhanced when the Western Sydney International Airport begins operation, providing access to other Australian states and international markets 24 hours a day.

Fairfield is part of the Smart Cities Plan and the Western Sydney City Deal, which outlines the expansion of agriculture opportunities by developing water and energy plans, establishing biosecurity protocols for exports & imports, while 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 airport vicinity, the food supply chain could be condensed. 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.

Fairfield City Council have the challenge to ensure they provide the relevant services and activities to cater for these new opportunities.



<sup>2</sup> p21 *The Future of Australia's Agricultural Workforce*

## 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-focused solution.

(Question, Design, Explore, Communicate)

## Resources

### CSIRO research

- <sup>2</sup> The Future of Australia's Agricultural Workforce [https://data61.csiro.au/~media/D61/Files/19-00351\\_DATA61\\_REPORT\\_AgricultureWorkforce\\_WEB\\_191031.pdf?la=en&hash=3427E88C09FA139934AC03E6B74D74835D7EC3BB](https://data61.csiro.au/~media/D61/Files/19-00351_DATA61_REPORT_AgricultureWorkforce_WEB_191031.pdf?la=en&hash=3427E88C09FA139934AC03E6B74D74835D7EC3BB)
- 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 2020 <https://ecos.csiro.au/time-to-beef-up-agrifood-supply-chains/>

### Reports

- Western Sydney Food and Grocery Manufacturing Economic Snapshot, August 2018 <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 Implementation, 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, National Geographic, 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.rdasymdney.org.au/agribusiness-in-the-sydney-region>
- RDA Sydney, Mapping Fairfield's Agribusiness Sector, April 2021 <https://www.rdasymdney.org.au/mapping-fairfield-s-agribusiness-se>
- Agribusiness precinct – Western City & Aerotropolis Authority <https://www.wcaa.sydney/agribusiness>
- Risk is constant, but agriculture is in the box seat, April 2020 <https://www.macarthuradvertiser.com.au/story/6715921/optimism-builds-in-australian-agriculture/>

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