



SCIENCE AND
INDUSTRY
ENDOWMENT
FUND



STEM Community Partnerships Program

Camden local scenario

Manufacturing

Manufacturing businesses primarily work with metals, chemicals, wood and other non-metals, food and fabrics. Most are Small and Medium sized Enterprises (SMEs), which play a significant role in the local economy, providing diversity in jobs, products and innovation. Career opportunities in these industries are offered via training programs within the company, through apprenticeships, traineeships, internships and postgraduate programs. Often people start in one area and move to different roles and may participate in a variety of learning programs.

Recent data identifies that 3.2% of the businesses listed in the Camden region are described as manufacturing¹. In 2018/2019, manufacturing had the largest total exports by industry in this region, generating \$306 million. These local businesses are using technology and skills to create new world-leading products and processes.

Consequences of COVID-19 will impact local manufacturing and career opportunities. There may be changes in attitudes and approach to employing and retaining local people. This requires people with the interest, skills, knowledge and curiosity to be active in these industries, and for SMEs to be flexible and to continue being innovative.

Camden Council has the challenge to ensure they provide the relevant services and activities to cater for this problem.



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)

Resources

CSIRO research

- Advanced Manufacturing Roadmap <https://www.csiro.au/en/Do-business/Futures/Reports/Advanced-manufacturing-roadmap>
- AI for natural resources and environment <https://www.csiro.au/en/News/News-releases/2019/AI-for-health-infrastructure-and-natural-resources-key-to-Australias-future-prosperity>
- Digital Twins <https://data61.csiro.au/en/Our-Research/Our-Work/Future-Cities/NSW-Digital-Twin/NSW-Digital-Twin?featured=6EDF11D88EED4B6794F2FBDFD65766B2>
- Research Scientist Manufacturing <https://digitalcareers.csiro.au/en/Career-spotlights/Michael-Seo>

Reports

- Western Sydney University - Beyond Business as Usual https://www.westernsydney.edu.au/_data/assets/pdf_file/0011/1635914/beyond-business-as-usual-a-21st-century-culture-of-manufacturing-in-australia.pdf
- NSW Government Jobs for the Future https://www.jobsfornsw.com.au/_data/assets/pdf_file/0007/90781/Jobs-for-the-future-summary-brochure.pdf
- Camden Council 2016 Industry Sector of Employment <https://profile.id.com.au/camden/industries>

Articles

- Advanced Manufacturing NSW Government <https://invest.nsw.gov.au/sector-opportunities/manufacturing>
<https://www.business.nsw.gov.au/industry-sectors/industry-opportunities/advanced-manufacturing>
<https://www.business.nsw.gov.au/industry-sectors/industry-opportunities/advanced-manufacturing/industry-breakdown> <https://www.business.nsw.gov.au/industry-sectors/industry-opportunities/advanced-manufacturing/success-stories>
- Camden-Narellan Advertiser April 30 2020 <https://www.camdenadvertiser.com.au/story/6740645/fed-govt-grants-to-boost-manufacturing/>
- Building a stronger future for manufacturing in Western Sydney https://www.westernsydney.edu.au/newscentre/news_centre/story_archive/2014/building_a_stronger_future_for_manufacturing_in_western_sydney
- Manufacturer's Monthly <https://www.manmonthly.com.au/news/48-3-million-smes-modernisation-fund/>
- Western Sydney Investment Attraction Fund <https://www.jobsfornsw.com.au/funding/western-sydney-investment-attraction-fund>
- The Conversation <https://theconversation.com/the-australian-manufacturing-industry-is-not-dying-its-evolving-csiro-study-69398>
- Sydney Morning Herald <https://www.abc.net.au/news/2020-04-19/scott-morrison-government-coronavirus-covid19-manufacturing/12153568>