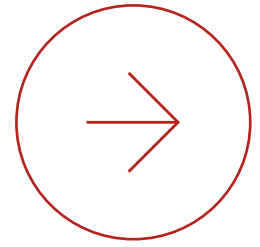


Equipping Australian agriculture with LCA-based sustainability metrics (LCAgMetrics)



A joint project by AgriFutures Australia and Lifecycles to strengthen the data available to the agri-food sector for reporting sustainability metrics generated with life cycle assessment (LCA).

The project (LCAgMetrics) is part of the Federal Government's Sustainability Reporting Uplift Grant Round which is making \$4 million in funding available to enable better availability and interoperability of data along agrifood supply chains to support the reporting and traceability of sustainability credentials. The aim of the LCAgMetrics project is to revamp and broaden data in the Australian Life Cycle Inventory (AusLCI) database to enhance the capacity of Australian agriculture to respond to national and international requirements for sustainability metrics generated using product Life Cycle Assessment (LCA).

Background

Since the 2010s, Australian agriculture has recognised the critical importance of providing publicly accessible, peer-reviewed and transparent life cycle inventory (LCI) data for generating trusted LCA studies. Lifecycles played a pivotal role in setting up the original agricultural data in AusLCI (AusAgLCI) in 2014¹ in collaboration with several Rural Development Corporations and the CSIRO. AusAgLCI has since been the go-to resource for agricultural LCA studies, which have secured Australia's competitive position in the European canola market, supported Queensland's biofuel mandate, contributed to the Australian Grains Greenhouse Gas Baseline and Mitigation Report, and underpins the FarmPrint tool.

Due to developments over the last decade in agricultural processes and methods for calculating sustainability metrics, there is a need to update and expand the database. Due to the growing range of end uses for sustainability metrics, there is also a need to engage with the post-farm gate supply chains about the interoperability of AusLCI data with in-business uses.

The two-year project will:



Update the existing on-farm data in AusLCI (grains, cotton, sugar, horticulture, beef, sheep, and wool), to reflect current practices, updated emission factors, and international data reporting standards,



Add new on-farm inventory data for priority agricultural commodities currently underrepresented in AusLCI (rice, meat chickens, dairy, pork, export hay),



Add new inventory data for common processes downstream of the farm to AusLCI, such as processing, transport and storage of agricultural commodities.



Identify in-business and supply chain systems that can use sustainability metrics and define the interfaces and data flow pathways necessary to enable access to AusLCI data for these systems.

¹Eady, S., Grant, T., Cruyppenninck, H., Renouf, M.A., Mata, G. (2014). AusAgLCI – A life cycle inventory database for Australian agriculture. Rural Industries Research and Development Corporation. Canberra.

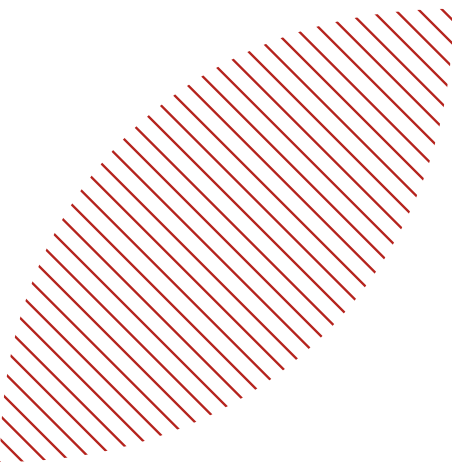
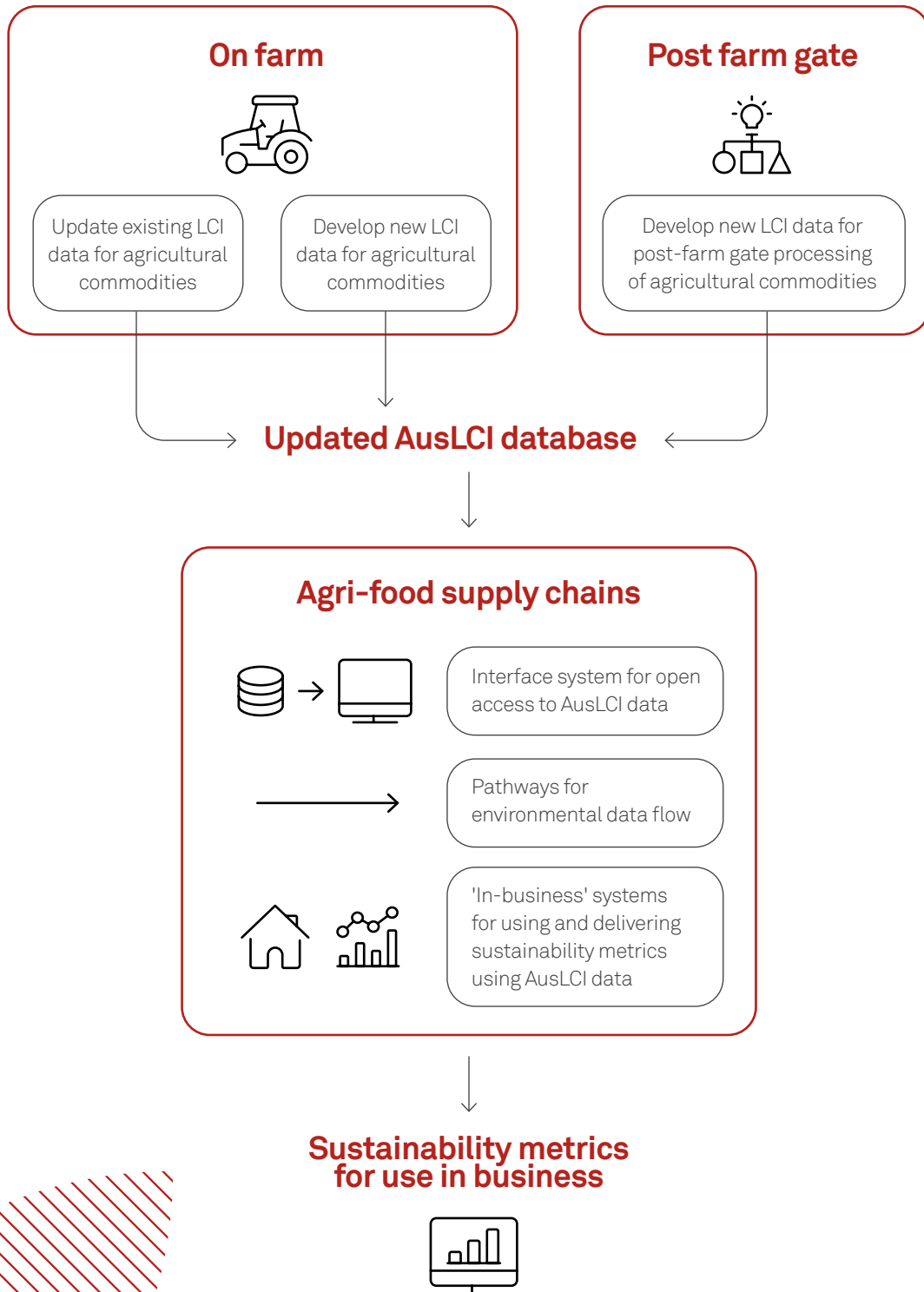


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National Challenges and Opportunities

The outcome will be to empower agriculture and agri-food businesses to communicate their progress toward sustainability goals more effectively with customers, consumers and stakeholders.



About Life Cycle Assessment (LCA)

Life Cycle Assessment (LCA) is an internationally recognized and standardized method for estimating environmental impacts across the life cycle of products. Impacts considered include not only climate change impacts from greenhouse gas emissions, but also resource depletion (fossil fuels, water, land, minerals), water quality impacts (eutrophication and ecotoxicity) and air quality impacts (acidification, smog). It underpins national and international sustainability schemes (Climate Active, Product Environmental Footprints, EU Renewable Energy Directive, ISCC, ARENA). LCA enables product comparisons and evaluation of Circular Economy claims.

What is the Australian Life Cycle Inventory (AusLCI) database?

LCA is only as good as the underpinning life cycle inventory (LCI) that supports it. So the AusLCI database is a repository of good quality, peer-reviewed, publicly available life cycle inventory (LCI) data for Australian production and service processes. It is managed by the Australian Life Cycle Assessment (ALCAS), and ownership of the data is retained by the contributors. AusLCI data for agriculture is progressively being made available to LCA practitioners internationally, to ensure that accurate data is being used to represent Australian processes in environmental declarations and claims and the like.

For further information:

Click to find out more about the project here:
<https://www.lifecycles.com.au/auslci>

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