



## 2.4.2 Accelerating Food Transformation

### KEY POINTS

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- Upcycled food offers a scalable solution to Australia's food waste problem, with ~2.96 million tonnes wasted annually in primary production and manufacturing (FIAL, 2021)
- The project identified regulatory, technical, and consumer barriers to upcycled food and proposed strategies to overcome them.
- Consumer awareness is low, but purchase intentions are positive—especially for plant-based products made from surplus food.
- Regulatory frameworks do not unduly burden upcycled food, but definitional clarity and guidance around therapeutic goods regulation are needed.
- Low-tech processing, collaborative supply chains, and values-driven entrepreneurship are key enablers of the sector.

### THE CHALLENGE

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Australia lacks a coordinated approach to transforming food surplus and waste into value-added products. The upcycled food sector faces multiple challenges:

- No official definition of upcycled food, complicating regulation and consumer understanding.
- Limited manufacturing infrastructure and technical capacity, especially for small-scale producers.
- Low consumer awareness and high levels of price sensitivity.
- Regulatory ambiguity, particularly around therapeutic goods classification.
- Inconsistent access to surplus food, creating supply chain precarity (see findings from Phase 1: Literature review and stakeholder interviews).

These challenges hinder the development of alternative markets and reduce the capacity of Australian industries to scale up food transformation initiatives.

## THE OPPORTUNITY

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Upcycled food is a rapidly growing global trend, with a projected market value of USD 68.56 billion by 2032 (Fortune Business Insights, 2025). It offers a unique opportunity to (1) reduce food waste and greenhouse gas emissions; (2) create new jobs in the circular economy; (3) support sustainable agriculture and food systems; (4) develop innovative products using surplus or by-product ingredients; and (5) engage consumers in environmentally responsible purchasing.

Australia is well-positioned to lead in this space, provided strategic support is given to overcome current barriers.

## OUR RESEARCH

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The project was conducted in four phases:

### Phase 1: Literature review and stakeholder Interviews

- Reviewed social science literature on upcycled food.
- Conducted 15 interviews with entrepreneurs, growers, and government representatives.
- Identified key barriers (e.g., regulation, manufacturing, consumer awareness) and enablers (e.g., funding, collaboration).

### Phase 2: Regulatory analysis

- Assessed food safety, labelling, novel food, and therapeutic goods regulations.
- Found no specific legal barriers but highlighted the need for clearer definitions and guidance.
- Reviewed international models, including U.S. certification schemes.

### Phase 3: Case Studies

- Profiled five Australian businesses engaged in upcycling.

- Highlighted the role of low-tech processing, supply chain collaboration, and values-driven motivation.
- Identified marketing and funding challenges.

### Phase 4: Consumer Study

- Conducted focus groups (n=45) and a nationally representative survey (n=2,557).
- Found low awareness but positive purchase intentions, especially for plant-based products.
- Identified price high sensitivity and trust in food safety as key factors influencing acceptance.

## OUTCOMES

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Overall, this project identified key barriers and opportunities that may help build the upcycled food industry in Australia, alongside potential regulatory gaps. It highlighted the current relevance on fairly low-tech, scalable processing methods and the role government can play in providing funding and support. Importantly, the project demonstrated consumer interest in upcycled food, particularly when quality and safety are emphasised, but revealed challenges, including with respect to consumer acceptance of certain ingredients and price.

Collectively, the findings from this project suggest that upcycled food presents a viable and scalable opportunity to reduce food waste, support sustainability, and create economic value in Australia. However, strategic support across regulation, infrastructure, funding, and consumer engagement is essential.

## IMPACT

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- The research provides a roadmap for regulatory reform, infrastructure investment, and consumer engagement, helping the industry scale sustainably.

- Insights into low-tech processing, supply chain collaboration, and consumer preferences support the creation of viable, scalable business models.
- Guidance on marketing strategies—emphasising quality over environmental messaging—can help overcome price sensitivity and improve uptake.

## NEXT STEPS

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To realise the full potential of upcycled food in Australia, the following actions are recommended:

- Develop a legal definition of upcycled food and integrate it into food waste policy.
- Provide regulatory guidance on food vs. therapeutic goods classification.
- Fund shared manufacturing hubs and early-stage ventures.
- Launch national education campaigns focused on food safety and ingredient transparency.
- Support certification programs aligned with consumer expectations.
- Encourage industry to focus on plant-based products and quality-focussed marketing.
- Facilitate third-party networks to connect growers, processors, and retailers.
- Build and share business cases to demonstrate economic viability.

Further research is needed to explore export opportunities, legal protections for collaborative ventures, and specific consumer preferences across different product types.

## PROJECT TEAM

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## PROJECT REPORTS/PUBLICATIONS

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Hurst, B., Johnson, H., Thiel, J., & Schuster, L. *Report 1: Barriers and Opportunities.*

Johnson, H., Thiel, J., Hurst, B., & Schuster, L. *Report 2: Regulatory Analysis of Upcycled Food.*

Johnson, H., Hurst, B., Schuster, L., & Thiel, J. *Report 3: Upcycled Food Business Case Studies.*

Schuster, L., Jain, R., Hurst, B., & Johnson, H. *Report 4: Consumer Acceptance of Upcycled Food.*

Hurst, B., Johnson, H., Schuster, L., Thiel, J., and Jain, R. *Report 5: Final Report.*

## PROJECT WEBPAGE

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<https://endfoodwaste.com.au/accelerating-food-transformation/>



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