



# **Final report**

## The FoodTech Tasmania Accelerator (2022-2024) – partnership with MLA

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#### Abstract

This project was undertaken to support the Australian red meat industry by identifying and developing innovative technologies through the FoodTech Tasmania Accelerator, delivered by Startupbootcamp (SBC) Australia. The program aimed to address key industry challenges, including waste valorisation, functional food innovations, sustainable packaging, and advanced agri-food technologies, by scouting and mentoring high-potential startups. The goal was to create new commercial opportunities for red meat and by-products while ensuring the industry remained competitive in global markets.

The project was conducted through a structured accelerator model, which included global scouting, startup selection, business mentoring, and proof-of-concept (PoC) development. Over 30,000 companies were reviewed, leading to 30 startups from 14 countries being selected. Participants engaged in a 12-week program focused on commercial readiness, investment strategy, and pilot project development.

This initiative was supported by funding from Meat and Livestock Australia's Product & Packaging program, matched by the Tasmanian Department of State Growth through the Office of the Coordinator-General.

Key outcomes included eight project plans aligned with industry innovation themes, with five pilots on track for completion. The program strengthened industry engagement, expanded the innovation pipeline, and positioned startups for commercial investment. These results provide the red meat industry with new product opportunities, enhanced sustainability practices, and increased global competitiveness, ensuring ongoing growth and adaptation to market demands.

## **Executive summary**

#### Background

This project aimed to support the Australian red meat industry by identifying and developing innovative solutions through the FoodTech Tasmania Accelerator, delivered by Startupbootcamp (SBC) Australia. The key focus was on scouting and mentoring startups aligned with strategic industry challenges, including circular economy practices, functional food and ingredient innovations, advances in food and agri-tech, and sustainable packaging solutions.

The program addressed a key industry need: ensuring the red meat sector remains at the forefront of global innovation by fostering new technologies and business models.

The insights and results generated will be used to inform future R&D priorities, guide investment decisions, and support commercial pathways for promising technologies, ensuring the red meat industry benefits from cutting-edge innovations.

This initiative was supported by funding from Meat & Livestock Australia's Product and Packaging program, matched by the Tasmanian Department of State Growth through the Office of the Coordinator-General.

#### Objectives

The project aimed to:

- Deliver at least six pilot projects addressing key innovation themes.
- Ensure selected startups were investor-ready and aligned with red meat industry needs.
- Foster strong industry engagement, with a focus on Tasmanian-based partnerships.
- Provide a final report with key insights and recommendations to MLA.

The project successfully delivered eight project plans aligned with innovation themes, with five pilots on track for completion. While the proportion of Tasmanian-based development was below 60%, all projects engaged Tasmanian stakeholders.

#### Methodology

The accelerator program followed a structured and globally proven methodology:

- Scouting & Selection: Over 30,000 companies were reviewed, with 30 startups selected, a minimum of 2 per year selected based on MLA's criteria.
- Startup Development: Participants completed a 12-week digital and face-to-face curriculum covering commercial readiness, investment strategy, and pitching skills.
- Industry Engagement: Startups participated in mentoring, PoC development, and pitch sessions, refining their solutions for real-world application in the red meat industry.

This structured, hands-on approach ensured startups progressed efficiently from concept development to industry validation.

#### **Results/key findings**

**Strong Industry Engagement**: MLA and red meat industry stakeholders provided mentorship, feedback, and investment guidance, enhancing startup alignment with industry needs.

**Validated Innovation Themes**: Startups focused on sustainable packaging, functional foods, waste valorisation, and novel ingredients, aligning with MLA's strategic priorities under the HVFF product & packaging innovation program.

**Successful Scouting & Matching:** The scouting process ensured a steady pipeline of high-potential startups, demonstrating the effectiveness of accelerator-driven innovation sourcing.

**Investor-Ready Pilots**: The pilots produced are in a mature state for commercial PoCs, offering actionable solutions for the red meat industry.

While some proposed projects did not progress due to funding challenges or strategic realignment, the program demonstrated the importance of flexibility and early industry engagement in project development.

#### **Benefits to industry**

This project provided significant benefits to the red meat industry, including:

- Early Access to Emerging Innovations: Startups introduced disruptive technologies that support industry growth in functional nutrition, sustainable packaging, and waste valorisation.
- Strengthened Industry Networks: Mentoring relationships and stakeholder engagement created long-term opportunities for collaboration and investment.
- Global Market Positioning: Supporting high-value product development ensures Australian red meat remains competitive in global health, wellness, and sustainability markets.

By leveraging accelerator-driven scouting and pilot testing, the red meat industry can continuously integrate cutting-edge technologies into its value chain.

#### Future research and recommendations

Future programs should continue exploring underutilized co-products such as offal, bones, and blood for high-value applications in nutraceuticals, sustainable packaging, and premium pet care. To maximize impact, MLA can integrate program insights into strategic industry initiatives and showcase outcomes at key conferences to attract new partners and funding. Strengthening early stakeholder engagement, especially with abattoirs, producers and other value chain players and expanding collaboration with corporate partners will further support commercialisation and position the red meat industry as a leader in innovation and sustainability.

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## 1. Background

## 1.1 Tasmanian Food & AgriTech Accelerator

Startupbootcamp (SBC) Australia developed a 3-year Industry Accelerator program focusing on Food & Agri Technology. Key themes included: Circular Economy e.g. in upcycling food, aquaculture and agriculture waste; Functional Food & Ingredients; Advances in Food, Aqua & Agri Tech e.g. relating to traceability, packaging integrity and quality improvements; and Fermentation e.g. to produce natural ingredients for flavour enhancement, and/or preservation technologies or waste and/or side-streams to value opportunities.

Matching Tasmanian state funds with MLA Donor Company ("MDC") provided the Australian red meat industry an opportunity for:

- Pipeline development for RDA programs (to identify technology and start-ups applying food tech innovations to grow demand for inclusion of Australian red meat and by-products
- Direct pathway for partnerships with companies open to being based in Tasmania, procuring Tasmanian procured meat (but not limited to Tasmania)
- Shared learnings from other SBC corporate partners their approach to key mega trends and screening of FoodTech platforms.

Past work with accelerators within MLA's Product & Packaging Program and Innovation Capability Building Programs had demonstrated the power of an effective scouting and matching process to ensure MLA had a pipeline of new opportunities and to keep abreast of emerging technology platforms and disrupters.

## 2. Objectives

The objective of the MDC project with Startupbootcamp was to secure a minimum of 6 pilots to be undertaken during 2022-2024 as part of the FoodTech Tasmania Accelerator. Startups were scouted and mentored to develop and test proof of concepts across key themes such as upcycled meat and meat by-products streams, functional ingredients derived from red meat components and advancements in novel packaging formats.

Matching funding from a Tasmanian state grant to SBC aimed to have at least 60% of the overall corporate partnerships or PoC's undertaken in Tasmania (e.g. with Tasmanian based meat companies).

The objectives by the end of the three-year program were:

- Complete a minimum of 6 pilots, with validated value propositions and proof of concepts in agreed innovation themes; with development work undertaken in Australia (including up to 60% in Tasmania resulting in MLA being part of the TAS state government desire for an innovation ecosystem) in AgriFoodTech.
- At least 6 pilots with startups, that are investor pitch ready for Australian red meat industry, with suitable technology-market-investment readiness levels with clearly defined pain points/product/service features identified.
- Final report submitted to MLA, highlighting the research design, lessons learnt from the wider Tasmanian FoodTech accelerator partnerships and key findings and recommendations from the 3-year SBC-MLA corporate partnership.

8 project plans with validated value propositions matching the innovation themes were provided to MLA over the period of 2022-2024. At the time of writing this report, 2 projects are close to completion with 3 projects from the 2024 program at an advanced stage of project design with industry partners and are expected to commence.

While the proportion of development work undertaken in Tasmania was below 60%, all eight projects engaged with Tasmanian partners as part of the project design phase. A key learning from this process has been the challenge of securing a sufficient number of corporate partners within Tasmania's smaller market to co-fund and support PoC projects. This highlights the importance of maintaining flexibility when seeking funding and industry collaboration across Australia to ensure projects have the best chance of success.

Throughout this program Tasmania's innovation ecosystem has continued to develop, with increasing industry engagement and investment in AgriFoodTech. As this ecosystem matures, it is expected that a higher proportion of projects will be able to secure Tasmanian-based partners, strengthening the state's position as a hub for food and agricultural innovation. Continued efforts to foster local corporate partnerships and attract external investment will be crucial in achieving this goal.

The project has significantly advanced the state's innovation ecosystem. Over the past three years, the program has facilitated over 60 events with more than 3,000 participants, fostering a local talent pool, connecting startups with farmers and businesses, and generating economic impact in critical industries such as fruit and red meat. By reviewing over 30,000 companies and selecting 30 startups from 14 countries, the project has contributed to Tasmania's and Australia's growing reputation as an innovation hub in the global AgriFoodTech space.

The project is on track to achieve five out of the six planned pilot projects while successfully delivering eight project plans that addressed key innovation themes. Each project plan was developed to align with industry challenges, demonstrating technology-market-investment readiness and outlining clear pathways for commercialisation. These outcomes highlight the program's effectiveness in identifying and supporting startups to develop innovative solutions tailored to the needs of the Australian red meat industry.

The submission of this final report satisfies the report objective by providing a comprehensive overview of the research design, key lessons learned from the Tasmanian FoodTech accelerator partnerships, and insights gained from the three-year SBC-MLA corporate partnership. It delivers detailed findings and actionable recommendations to support future strategic initiatives.

## 3. Methodology

#### 3.1 Accelerator Program

#### 3.1.1 Learning Content

All startups completed 12 weeks of online learning content through SBC Digital, beginning with lean startup methodology and covering all areas of commercial readiness, investment readiness, and pitch readiness.

The online learning was complemented by 1.5-hour Masterclasses and 1-hour expert group mentoring sessions, such as "Ask-me-Anything" (AMA) or "Fireside Chats," to explore specific topics in depth. The Masterclasses included weekly deliverables designed to help startups achieve commercial and investment readiness, while AMA and Fireside Chats featured external speakers from the Food & AgriTech industry and investment community.

SBC is a global expert in delivering industry-focused incubators, accelerators, and scaleup programs, with over a decade of experience globally since 2010 and a strong presence in Australia since 2017. The program applied SBC's proven global best practices in incubation and acceleration, tailoring them specifically to the needs and goals of this project.

The methodology combined highly engaging face-to-face sessions with structured online content, ensuring a balance of flexibility and direct engagement. A structured mentoring process, supported by a dedicated mentor engagement platform, provided startups with personalized guidance and access to industry expertise. This globally refined methodology was successfully applied to the project, delivering efficient outcomes and equipping startups with the tools needed for commercial and investment readiness.

## 3.2 Pitch Events

#### 3.3 Weekly "Pitch for" Sessions

Startups participated in weekly "Pitch for" sessions attended by SBC staff, Entrepreneurs-in-Residence, Intrapreneurs-in-Residence, and Limited Partner Investors.

These sessions were designed to equip startups with every pitch type needed for various circumstances, including a 30-second "elevator pitch," "no jargon" pitch, customer pitch, investor pitch, media pitch, and Demo Day pitches. Held every Friday, the morning sessions, known as "Pitch for Coffee," were conducted in a hybrid format, while the afternoon "Pitch for Beer" sessions were in-person events and for 2023 and 2024 were open to the public at Du Cane Brewery. A highlight was the no-jargon "Pitch to your grandma," where startups simplified their messages by removing jargon, acronyms, buzzwords, and technical language.

A "Pitch for Beer" event was also held during the first week of the program in years two and three in Singapore, engaging the local foodtech startup ecosystem. Multiple "Pitch for Beer" events were hosted in Tasmania, in Hobart (Southern Tasmania), Longford (Regional North) and Burnie (North West Tasmania) designed to encourage engagements with farmers and other regional stakeholders.

The methodology employed by SBC leverages its globally proven expertise in delivering industryfocused programs to successfully achieve the program's objectives. Through a structured approach that combined targeted online learning, face-to-face workshops, and intensive mentoring sessions, startups advanced through technology-market-investment readiness, clearly defined key industry pain points, and refined their product or service features.

The "Pitch for" practice methodology was integral to this success, providing startups with the tools to craft and deliver tailored pitches for a variety of audiences, including investors, customers, and industry stakeholders. This consistent and practical focus on pitch development enabled startups to confidently articulate their value propositions and showcase validated proof-of-concept solutions, directly contributing to the delivery of investor-ready pilots for the Australian red meat industry.

## 4. Results

## 4.1 Scouting

Over the past three years, the program conducted an extensive global review of over 30,000 companies, ultimately selecting 30 high-potential startups from 14 countries. Each startup underwent a rigorous evaluation process against MLA's criteria to assess its relevance, technological maturity, and potential impact on the red meat industry. This thorough selection process ensured that only the most promising companies advanced to the next stage, where they could develop Proof-of-Concept (PoC) or pilot projects in collaboration with MLA and its industry stakeholders.

By taking a highly targeted approach, the program identified startups that directly addressed key challenges and opportunities within the red meat sector, from sustainability and waste valorisation to functional food innovation and supply chain optimization. The focus on aligning emerging technologies with industry needs helped maximize the likelihood of successful pilots, paving the way for scalable solutions that could drive long-term value for the sector.

## 4.2 2022 Program

#### 4.2.1 EnvoPAP

<u>EnvoPAP</u>, a UK-based scale-up, is developing compostable, recyclable, and marine biodegradable food packaging solutions made from agricultural waste to replace plastic, with a focus on perishable food products such as meat. Their vertically integrated supply chain is currently based in India; however, through participation in the Australian accelerator, they explored opportunities to establish an Australian manufacturing plant and co-develop projects with local customers.

As part of their market entry, EnvoPAP analysed the Australian meat packaging landscape, including solutions used by Tasmanian beef company TasAgCo, which currently sources packaging from New Zealand-based Econic.

EnvoPAP's project did not progress to a formal collaboration with MLA. While the company was actively engaged in meat packaging innovation, the UK's Innovate UK funding model—which covers up to 70% of project costs compared to MLA's 40%—ultimately influenced their decision to pursue the next phase of development in the UK. This highlights a key learning: in a globally competitive startup ecosystem, attracting early-stage companies to Australia requires a strong value proposition to ensure the red meat industry can access and adopt emerging technologies at an early stage.

#### 4.2.2 NovoNutrients

<u>NovoNutrients</u> initially proposed a proof-of-concept (PoC) to conduct consumer sensory and acceptance assessments of hybrid products combining red meat with NovoNutrients protein. The goal was to evaluate consumer acceptability of the taste, texture, and overall concept of hybrid products containing single-cell proteins derived from microbial gas fermentation of carbon dioxide and hydrogen. This research aimed to establish a baseline for consumer perceptions of such products, helping MLA determine the most effective positioning for red meat—whether as part of hybrid offerings or as a distinct product competing against future proteins.

The proposal included collaboration with Watch Me Think to design and conduct the consumer studies, blending NovoNutrients proteins (from gas or sugar fermentation) with Australian ground

beef at various inclusion rates. While the PoC was initially accepted by MLA, the timeline for a commercial-scale NovoNutrients protein production facility—estimated to be at least five years away—led to the decision to postpone this study and instead explore alternative uses for the protein, such as animal feed.

Startupbootcamp recommends revisiting this PoC in the future using "proxy" products that simulate the proposed hybrid solutions. Conducting such a study would enable MLA to gain valuable insights into consumer preferences and market readiness for hybrid meat and alternative protein products. This knowledge would help MLA better understand the opportunities and challenges posed by alternative proteins, providing strategic guidance for the red meat sector.

Several traditional meat processors and producers are actively investing in alternative proteins, including cellular agriculture and fermentation-based processes. These investments reflect a growing recognition of the potential for sustainable and innovative protein sources.

Tyson Foods: One of the world's largest meat companies, Tyson Foods has invested in cell-cultivated meat companies, signalling its interest in the future of alternative proteins. https://crsreports.congress.gov/product/pdf/R/R47697?utm\_source=chatgpt.com

Cargill: This global food corporation has invested in Aleph Farms, an Israeli startup specializing in labgrown meat. Aleph Farms unveiled the world's first cell-based ribeye steak in February 2021. https://www.supermarketnews.com/fresh-produce/cargill-invests-in-cellular-meat-producer-alephfarms

JBS: The world's largest meat processing company, JBS, acquired BioTech Foods, a Spanish company specializing in cultured meat. BioTech Foods is constructing a production facility in San Sebastián, Spain, with an expected capacity of 1,000 tonnes annually, scalable to 4,000 tonnes. https://www.agriculturedive.com/news/jbs-begins-work-on-lab-grown-meat-center-in-brazil/694616/#:~:text=In%202021%2C%20JBS%20acquired%20Biotech,meatballs%20and%20other %20prepared%20foods.

These strategic investments by major meat producers highlight the industry's commitment to diversifying protein sources and embracing innovative technologies to meet evolving consumer preferences and sustainability goals.

#### 4.3 2023 Program

#### 4.3.1 The Blood Project: P.PSH.1517

Exploring the Feasibility of Freeze-Dried Bovine Blood Products

As part of the Foodtech Tasmania Program, this project originated from one of the innovative startups scouted during the accelerator's selection process, focusing on cutting-edge solutions for the red meat industry. ParadigmX has an Australian founder based in California, USA. Their technology, which is still in the early stages of development, provides instant, on-demand freezing for liquids and can be applied to everything from ice cream to blood products. ParadigmX was originally selected onto the FoodTech Tasmania program for 2023 as one of the startups. Unfortunately, ParadigmX experienced some personal challenges midway through the program and stepped away from the formal program to enable them space to focus on resolving these.

The Blood Project investigated the technical feasibility and commercial viability of producing freezedried bovine blood products (FD-BBP) as high-protein, high-heme iron ingredients for functional foods targeting aging or low-iron populations, as well as nutraceutical applications.

Bovine blood, rich in protein, vitamins, and minerals, has been an underutilized resource in Australian abattoirs due to challenges in sanitary collection and processing. This project sought to address these challenges and explore its potential as a high-value ingredient in food products, nutraceuticals, and other applications. Notably, FD-BBP demonstrated functional properties such as emulsification, gelling, and mouthfeel, along with significant nutritional benefits due to its heme-iron content.

#### **Key Objectives and Challenges:**

The Proof-of-Concept (PoC) focused on:

- Identifying effective and sanitary methods for collecting and preserving bovine blood at abattoirs.
- Assessing the suitability of chilling, freezing, and freeze-drying methods, including the need for anticoagulants.
- Evaluating the commercial viability of the freeze-drying process for BBP production in Tasmania.
- Investigating the technical feasibility of using FD-BBP in specific applications, such as Meepo Meal Pudding<sup>™</sup> and encapsulated nutraceuticals.
- Outlining an end-to-end Tasmanian supply chain, including compliance with Australian Halal conditions.

#### **Collaborators and Subcontractors**

This collaborative project was led by Startupbootcamp Australia and brought together partners with expertise across various stages of the FD-BBP production and utilization process:

- Meepo (US-based): Meepo developed a functional food prototype, Meepo Meal Pudding<sup>™</sup>, targeted at aging populations and individuals with low iron. Meepo conducted a desktop assessment of the FD-BBP ingredient for its technical suitability in their product.
- The Local Meat Co: Provided bovine blood for processing.
- <u>Forager Foods</u>: Specialized in freeze-drying and utilized their established kill-step process to ensure pathogen-free products, already applied to other co-products such as spleen, liver, and kidney.
- University of Tasmania (UTas), Dr. Jay Kocharunchitt: Focused on microbiological safety testing of FD-BBP, validating the process at Forager Foods for compliance with food safety standards, including testing for bacterial counts, E. coli, and Salmonella spp.
- KHQ Legal: Performed a desktop assessment of regulatory pathways (e.g., FSANZ or TGA) for FD-BBP as a functional food or nutraceutical ingredient.

#### **Broader Context and Potential Impact**

The project built on MLA's commissioned report, which highlighted the potential for bovine blood to be utilized in high-value products, including pharmaceuticals, pet food, and functional foods. By addressing challenges in sanitary collection and processing, this study sought to transform bovine blood from a largely underutilized by-product into a commercially viable, nutrient-rich ingredient within the Australian supply chain.

The Blood Project demonstrated the potential to create a value-added product stream, improve resource utilization, and establish Tasmania as a leader in innovative protein solutions for global markets. The project is set to be completed in mid-2025, with findings expected to inform future developments in the utilization of bovine blood for high-value applications.

#### 4.3.2 Kelpy

Based in Jervis Bay, NSW, Australia, scale-up <u>Kelpy</u> specializes in developing bio-based resin materials from seaweed. Their polymer resins are compostable (both industrial and in-home), biodegradable, and marine biodegradable, with applications for both rigid packaging, such as meat trays, and flexible packaging, such as laminate films. Kelpy has been focused on growing the Australian-sourced seaweed market and establishing local capabilities to supply their resin to packaging converters. Kelpy was selected as one of two scale-up companies to participate in the FoodTech Tasmania program.

Kelpy proposed collaborating with MLA and program partner ALDI Supermarkets Australia to develop new meat packaging materials and conduct a proof-of-concept trial through the supply chain. The proposed approach included an initial assessment of meat tray and film material specifications compared to Kelpy's existing materials, followed by a staged process to de-risk adoption in a commercial context. A project plan was subsequently developed and submitted to MLA for discussion. This plan was included in the Milestone 7 report.

However, a decision was ultimately made by the startup not to pursue the project so they could focus on raising funding to reach the next stage. While the concept held promise, the alignment of scope and priorities did not proceed to execution.

#### 4.3.3 Tiiga - P.PSH.1518

<u>TIIGA</u> (meaning "tree of life") is a US-based startup founded in Lincoln, Nebraska. TIIGA was selected as one of the eight startups to participate in the 2023 FoodTech Tasmania program.

#### **Collagen-Infused Beverage Project P.PSH 1518**

This project was designed to explore the development and optimization of a novel collagen-infused powdered beverage sachet, leveraging Australian-sourced ingredients to enhance health and wellness benefits. The initiative aimed to compare the nutritional and sensory profiles of Australian boab and African baobab as primary ingredients, alongside Australian-produced bovine and ovine collagen, to establish an optimal blend for women aged 35 and older.

The Proof-of-Concept (PoC) study focused on several key areas to determine product feasibility and consumer appeal:

- Identifying the ideal ingredient combination to balance fibre and collagen content while meeting specific nutritional claims, building on previous MLA research (e.g., P.PSH.1394 Viability and Feasibility of Ovine Collagen Phase 2).
- Exploring a range of flavour profiles (orange mango, lemon lime, raspberry, strawberry, watermelon, tropical) to align with consumer preferences while maintaining nutritional integrity.
- Evaluating the most suitable product and packaging format based on consumer convenience and sustainability considerations.

- Beyond formulation, the project included a market positioning assessment to determine the most compelling benefits to highlight—whether skin beauty, hydration, gut health, or overall wellness—and how to differentiate the product through branding. This involved:
- Developing and testing product positioning concepts through Watch Me Think (WMT) qualitative consumer research.
- Conducting a competitive analysis in the Australian and US markets to benchmark against existing products and identify unique selling points.
- Assessing the viability of highlighting Australian origin and collagen type (bovine vs. ovine) in branding and messaging.

Collagen, known for its benefits in improving skin elasticity, joint health, and overall wellness, is experiencing growing demand in the functional food and beverage industry. However, sourcing highquality, sustainable collagen that is effective in consumer products remains a challenge. This project aimed to explore the feasibility of developing a collagen-infused beverage using Australian-sourced ingredients to align with global wellness trends.

Australia's biodiversity and strong focus on sustainable agriculture provided an opportunity to develop a product that meets both nutritional and taste expectations while leveraging local resources. Prior work by Organic Technology Holdings, funded by MLA, had already identified suitable ovine and bovine collagen sources for inclusion in the PoC.

Conducted in collaboration with Startupbootcamp Australia, this project was part of a broader effort to enhance the value of the Australian red meat industry through innovative food technology solutions. The project assessed consumer desirability, technical feasibility, and commercial viability for both the Australian and international markets, targeting health-conscious consumers seeking functional foods. Additionally, high-level product costing and value multiplier modelling were included to evaluate the potential raw material demand for collagen based on forecasted beverage sachet sales.

Levy funding played a crucial role in initiating this project, demonstrating the significant impact that even a small allocation of levy funds can have when supporting early-stage companies. This investment enabled the project to move forward, highlighting the value of strategic funding in fostering innovation and industry collaboration.

The project will be completed in Q1 2025, providing critical insights into market potential, ingredient optimization, and commercial pathways for an Australian-made, collagen-infused beverage. The findings will help define opportunities for functional nutrition products using Australian-sourced ingredients, supporting the growing global demand for health and wellness solutions.

#### 4.4 2024 Program

#### 4.4.1 ADAR

<u>ADAR Technologies</u> specializes in innovative solutions for converting high-moisture waste streams into valuable products, leveraging advanced machinery to process forestry, agricultural, and industrial by-products into sustainable, high-value outputs. Their technologies aim to minimize environmental impact, reduce energy consumption, and unlock the economic potential of waste.

ADAR Technologies identified Australia as an ideal market due to the significant volume of highmoisture waste streams, including forestry residues, agricultural by-products, and co-products from the red meat industry. Recognizing an opportunity to repurpose these waste streams, the company plans to collaborate with the red meat sector to create sustainable, economically viable solutions that align with their mission of environmental and economic innovation.

The proposed Proof of Concept (PoC) focuses on unlocking value in the low-value beef co-product market, specifically targeting bovine bones. The project aims to develop high-demand nutraceutical products, including protein powders, broths, collagen, seasonings, and multivitamin supplements enriched with nutrients not found in traditional red meat. These products are intended for the health and wellness, cosmetics, pharmaceutical, and premium pet care markets, with a focus on lucrative international markets such as the Middle East, India, East Asia, and the US.

By leveraging Australia's reputation for high-quality production, the PoC seeks to position the country as a leader in sustainable and innovative beef nutraceuticals and premium pet wellness solutions. The project plan is near submission for approval, with ADAR Technologies aiming to demonstrate the potential for value creation in the red meat industry through advanced waste repurposing technologies.

#### 4.4.2 Furry Green Pets

<u>Furry Green Pets</u>, a Hong Kong-based company, specializes in premium pet food products crafted with sustainable and ethical practices. Their offerings prioritize superior nutrition and feature high-grade ingredients, including Australian-sourced red meat, to meet the needs of health-conscious pet owners.

With Australia's red meat industry renowned for its high quality and global consumer appeal, Furry Green Pets sees significant opportunities for growth. Already incorporating Australian red meat into their products, the company is now exploring the use of underutilized items, such as offal, to expand its range of premium pet food offerings.

The proposed project aims to establish a robust supply chain for these undervalued yet high-quality co-products, enabling the company to enhance its product line for the Asian pet food market. The project plan is nearing submission for approval, with a focus on leveraging Australia's reputation for quality and sustainability to drive innovation and value in the premium pet food sector.

#### 4.4.3 Vortair

<u>Vortair</u>, an Australian company specializing in innovative waste processing solutions, has developed a patented autogenous grinding system designed and manufactured locally. The Vortair system utilizes advanced air vortex frequency technology to transform waste materials into refined outputs, such as dry powders or liquid pastes, by harnessing the kinetic energy stored within materials. This efficient technology enables up to 90% volumetric reduction of waste, providing sustainable solutions for industries aiming to optimize resources and reduce their environmental impact.

The project, currently in the stakeholder alignment phase, focused on unlocking value from lowvalue lamb co-products, including bones and offal, by transforming them into high-demand nutraceutical products. These products include protein powders, broths, collagen, seasonings, and multivitamin supplements, offering essential nutrients not typically found in traditional red meat products.

Targeting high-growth industries such as health and wellness, cosmetics, pharmaceuticals, and premium pet care, the project aimed to align with consumer trends favouring nutrient-dense and sustainable solutions. By leveraging Australia's reputation for high-quality production, the project

was designed to tap into lucrative international markets, including the Middle East, India, East Asia, and the US. Through innovative processing and sustainable practices, the initiative sought to position Australia as a global leader in lamb-based nutraceuticals and premium pet wellness solutions.

Vortair did not participate in the 2024 program but was introduced to SBC and the Scouting team by a key mentor and investor involved in the program. This highlights the broader impact of the initiative, demonstrating that valuable projects for MLA can emerge not only from specifically scouted companies but also through the program's extended network and industry connections.

#### 4.5 MLA Mentors and Industry Stakeholder engagement

MLA staff demonstrated strong engagement throughout the program, particularly during the scouting phase, where their insights helped identify startups with high potential to address challenges and opportunities within the red meat industry. During the program, MLA staff further enhanced their involvement by participating in mentoring sessions with several of the startups.

This active engagement provided MLA staff with firsthand exposure to innovative technologies and innovative business models, broadening their skill sets and strengthening their ability to assess, guide, and collaborate with emerging industry players. The mentoring sessions allowed staff to deepen their understanding of innovation processes, particularly in areas such as technology validation, market readiness, and pilot project design.

For the startups, MLA's mentoring was instrumental in refining their approaches, ensuring their solutions were aligned with the red meat sector's needs and challenges. This collaboration contributed to the successful development of pilot projects, providing real-world proof of concept for solutions designed to benefit the industry.

Ultimately, this level of engagement created a two-way exchange of knowledge: MLA staff enhanced their capabilities in supporting innovation, while startups gained critical insights into industry-specific requirements. The outcomes of this collaboration are expected to deliver long-term benefits to the red meat industry, including the adoption of innovative technologies, improved sustainability practices, and the development of high-value products that enhance the industry's competitiveness on a global scale.

## 5. Conclusion

Over the past three years, the program reviewed over 30,000 companies globally, ultimately selecting 30 startups from 14 countries. Each startup was evaluated against MLA criteria to determine their suitability for Proof-of-Concept (PoC) or pilot projects with MLA and its industry stakeholders. This targeted approach ensured that the startups selected were aligned with the specific needs and opportunities within the red meat industry.

MLA Industry Stakeholders were actively engaged throughout the program, participating in PoCs and pilot projects and contributing to the success of the startups. Mentors from MLA and industry stakeholders were involved in SBC's Mentor Matching sessions, providing valuable guidance to startups while gaining exposure to emerging technologies and solutions.

The project and methodology successfully demonstrated how an effective scouting and matching process can establish a robust pipeline of innovative opportunities for the red meat industry. It enabled MLA to keep abreast of global technology trends and emerging platforms, ensuring access

to innovative solutions and potential disruptors. As a result, the pilots and startups were positioned as investment-ready and mature for further commercial PoC projects.

## 5.1 Key findings

**Key Findings** 

- Working with accelerators has proven to be a powerful way to scout, assess, and match startups with MLA, building a steady pipeline of innovative technologies and solutions.
- The targeted approach benefited the red meat industry by focusing on high-potential startups whose solutions align with industry challenges, leading to pilots that could deliver real value.
- The pilots produced through the program are investment-ready and positioned to advance into commercial PoC projects, providing the red meat industry with actionable innovations.

Learnings:

- There is a need to maintain flexibility around where projects are based in Australia to ensure they align with the specific needs of the startups and the red meat industry.
- Greater involvement from Industry Stakeholder companies during the early stages of program theme-setting could help identify focus areas and enhance engagement.
- The current 60:40 MDC matched funding model presents a challenge, as early-stage companies often lack the resources to co-fund projects. Involving industry partners earlier could address this gap.
- The contribution of levy funding has been instrumental in launching early-stage projects, demonstrating its ability to drive innovation and support emerging companies in developing industry-relevant solutions.
- There is an opportunity to showcase the outcomes of the scouting process to the MLA network, which could activate new partnerships and promote knowledge sharing on global trends relevant to the red meat industry.

This program has highlighted the value of a structured and targeted innovation pipeline for the red meat industry, emphasizing the importance of global scouting, collaboration with accelerators, and the active engagement of industry stakeholders. The insights gained will help guide future innovation efforts and ensure the industry remains competitive and forward-thinking.

## **5.2 Benefits to industry**

The insights gained from the program provide practical recommendations for integrating emerging innovations into the red meat industry to drive value, efficiency, and sustainability:

- Leverage pilot-ready startups: The startups selected and refined through the program are investment-ready and aligned with the red meat industry's needs. Practical application involves engaging these companies in further commercial PoC projects to test and scale their solutions, such as innovative nutraceuticals, sustainable packaging, and premium pet care products.
- Enhance engagement with industry stakeholders: Early involvement of industry stakeholders in program theme-setting and project development can ensure that pilot projects address critical industry challenges. This targeted alignment will lead to higher adoption rates and more meaningful outcomes.

• Flexible funding models: To overcome the challenges faced by early-stage startups with cofunding requirements, it is recommended to involve industry partners early in the process and explore funding structures that support high-potential, resource-constrained innovators.

The outcomes of this project bring several benefits to the wider red meat industry:

- Access to innovation: The program has provided the red meat industry with a curated pipeline of startups offering disruptive technologies and solutions, from waste valorisation and alternative proteins to consumer-focused innovations like sustainable packaging and functional foods. This access ensures the industry remains competitive and future focused.
- Stronger ecosystem connections: Industry stakeholders, MLA mentors, and startups have formed valuable relationships through the program, leading to knowledge sharing, collaboration, and partnerships that will continue to benefit the red meat sector.
- Increased global competitiveness: By leveraging Australia's reputation for high-quality production and adopting innovative solutions, the red meat industry can strengthen its position in lucrative international markets, particularly in health and wellness, premium pet care, and sustainability-focused sectors.

#### Practical Steps Forward

 To maximize these benefits, the program's scouting and engagement model should be sustained as part of MLA's long-term innovation strategy. Additionally, showcasing program outcomes to the MLA network will amplify awareness of global trends and activate new partnerships. This ongoing focus on targeted innovation and collaboration will ensure the red meat industry continues to adapt to consumer and market demands while fostering sustainable growth.

## 6. Future research and recommendations

Scouting and Matching Process: The accelerator demonstrated the value of SBC's global scouting and matching process, which effectively identified and aligned startups with MLA's priorities. This approach provided a steady pipeline of investment-ready solutions.

#### Future R&D:

Continue refining scouting themes to align closely with MLA's strategic priorities. Prioritize R&D projects that investigate the potential of underutilized co-products—such as offal, bones, and blood—for high-value applications in nutraceuticals, sustainable packaging, and premium pet care, ensuring maximum industry impact and commercial viability.

#### **Practical Application:**

- Actively collaborate with investment-ready startups from the program to launch commercial PoCs targeting identified market gaps, such as sustainable meat packaging and functional food products.
- Leverage MLA's existing network to integrate program insights into the red meat industry's strategic planning, ensuring that innovations are tailored to industry-specific challenges and opportunities.
- Host startup showcases or presentations at key MLA events to share program outcomes and identify opportunities for stakeholder companies to engage with the solutions emerging from the program.

#### **Development and Adoption Activities:**

Participate as a partner in the program if extended, supporting a two-year extension of the FoodTech Tasmania program with a focus on sustainability, global competitiveness, and alternative protein hybridization. If extension funding is unavailable, explore alternative models such as SBC's Scouting-as-a-Service to continue identifying high-potential startups and industry-relevant innovations.

Enhance stakeholder engagement through targeted activities, such as industry-specific sessions, mentor training on startup collaboration, and early involvement in theme-setting to align interests with program objectives.

## 7. References

- A Dietary Supplements Market Analysis was studied to identify key consumer groups and high growth opportunities within the nutraceutical sector for Australian red meat based bioactives. Published on 29 April 2023
- Meat and Livestock Australia 2025 Strategic Plan