



AGRICULTURE 4.0

Australia as a global hub for
agtech and foodtech innovation

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- An abstract graphic consisting of several thin, curved lines in shades of blue and green, flowing from the bottom left towards the right side of the slide.
- AUSTRADE'S ROLE
 - AUSTRADE'S AUSTRALIA FOR AGRICULTURE 4.0 INITIATIVE
 - MARKET LANDSCAPE FOR ALTERNATIVE PROTEINS

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AUSTRADE'S GLOBAL NETWORK



Core Business Includes

- Global Promotion/Branding
- Global Sector Strategies
- Client Services

AUSTRADE CLIENT SERVICES

SERVICE EXAMPLES

For Australian businesses:

- Advice on doing business overseas
- Information and insights on international trends and new business opportunities
- Introductions to networks of key decision makers, customers and contacts
- General and Tailored Services

For international companies:

- Provide insight on Australian capabilities
- Identify potential investment projects and strategic alliance partners
- Identify and contact Australian suppliers.

ADDITIONAL AUSTRADE PROGRAMS

Landing Pads:

- For market-ready starts up and scale ups
- Land and expand in global innovation hubs
- 90 day residency in co-working space

Mission Programs:

- Facilitated small group delegations
- Built around specific capabilities and thematic
- Ie. World Agri-Tech Innovation Summit and Midwest Tour March 2019

Export Market Development Grants:

- For small- and medium-sized Australian businesses to develop export markets
- Reimburses up to 50 per cent of eligible expenses
- Provides up to eight grants to each applicant.

Presentation Title

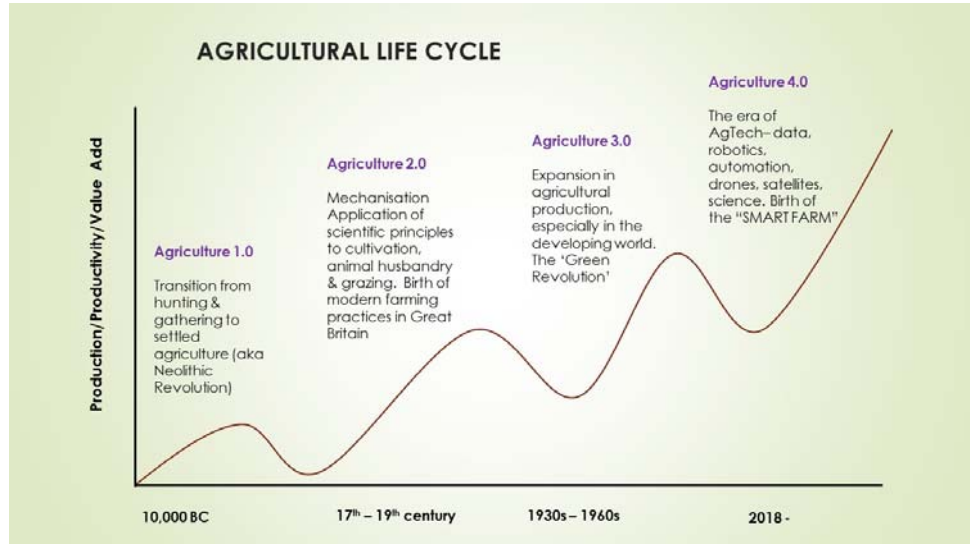
5

- AUSTRADE'S ROLE

- AUSTRADE'S AUSTRALIA FOR AGRICULTURE 4.0 INITIATIVE

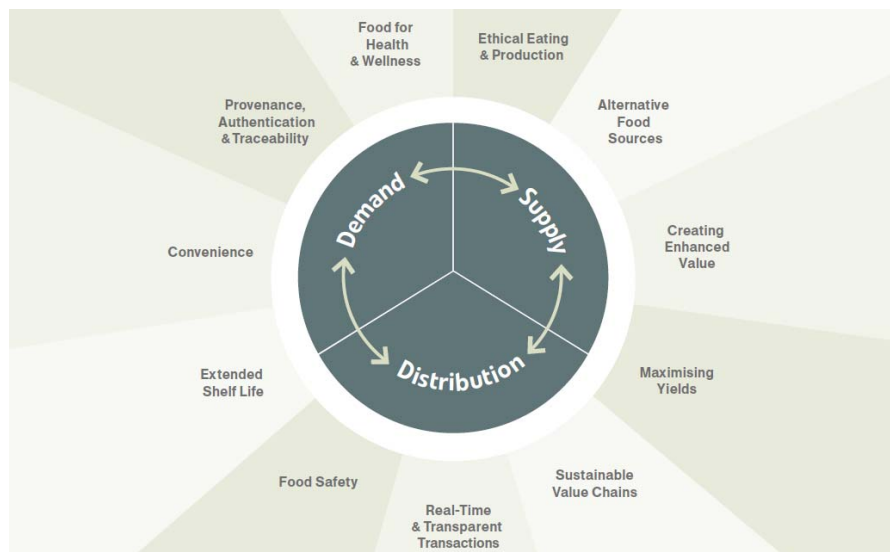
- MARKET LANDSCAPE FOR ALTERNATIVE PROTEINS

AGRICULTURE 4.0



7

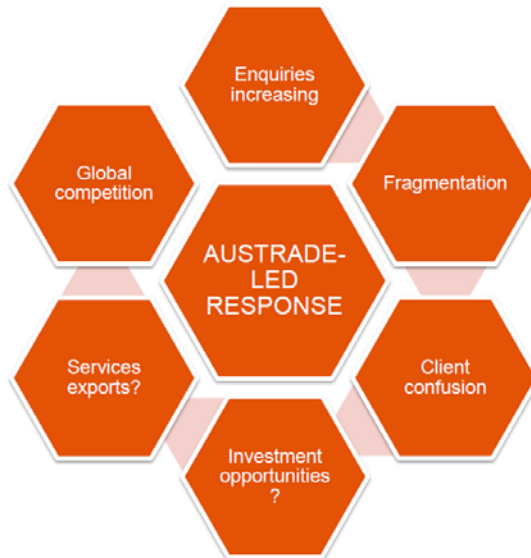
DRIVERS OF AGRICULTURE 4.0



Presentation Title

8

CURRENT STATE OF PLAY



Agriculture 4.0

9

AUSTRALIA FOR AGRICULTURE 4.0

- Launched by Minister Birmingham on 19 February 2019 at evokeAG.



10

WHY AUSTRALIA FOR AGRICULTURE 4.0



Agriculture 4.0

11

WHAT AUSTRADE IS DELIVERING: EVOKEAG MISSION



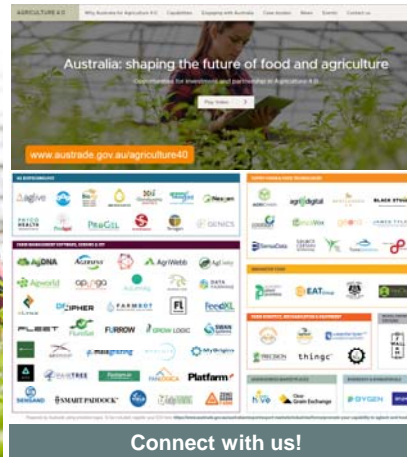
12

WHAT AUSTRADE IS DELIVERING: NEW ASSETS AND SOCIAL ADVOCACY

Brochure, case studies and insight pieces



Agriculture 4.0 website
www.Austrade.gov.au/agriculture40



Social media toolkit & asset library
ibrand.Austrade.com



Agriculture 4.0

13

AUSTRALIA: SHAPING THE FUTURE OF FOOD AND AGRICULTURE

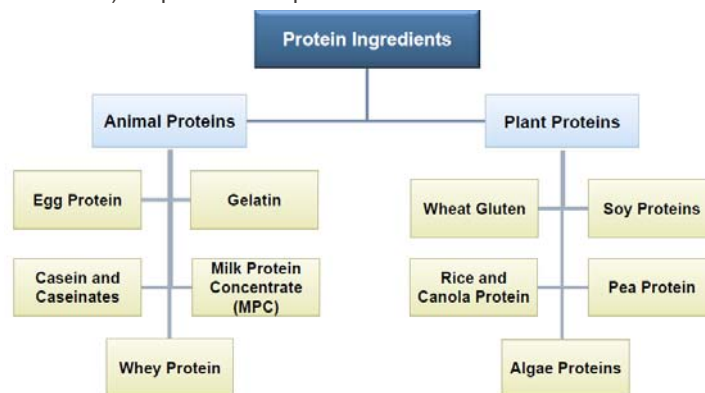


14

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GLOBAL PROTEIN MARKET

- Global protein ingredients market valued at AU\$50.8 billion (US\$36.1 billion) in 2017.
- Plant-based proteins market valued at AU\$12.4 billion (US\$8.8 billion) in 2017.
- Animal and plant-based proteins are expected to grow to reach AU\$71.9 billion (US\$51 billion) by 2022 and AU\$16.7 billion (US\$11.9 billion) for plant-based proteins.



Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series – Opportunities in the Global Protein Ingredients Market, Forecast to 2022".

16

KEY PLAYERS IN THE GLOBAL PROTEIN MARKET

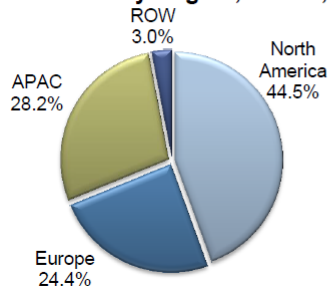


Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series – Opportunities in the Global Protein Ingredients Market, Forecast to 2022".

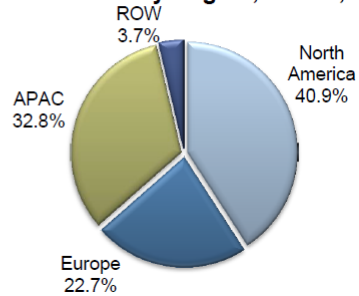
17

PLANT PROTEIN FORECAST

Plant Protein Ingredients Market: Percent Revenue by Region, Global, 2017



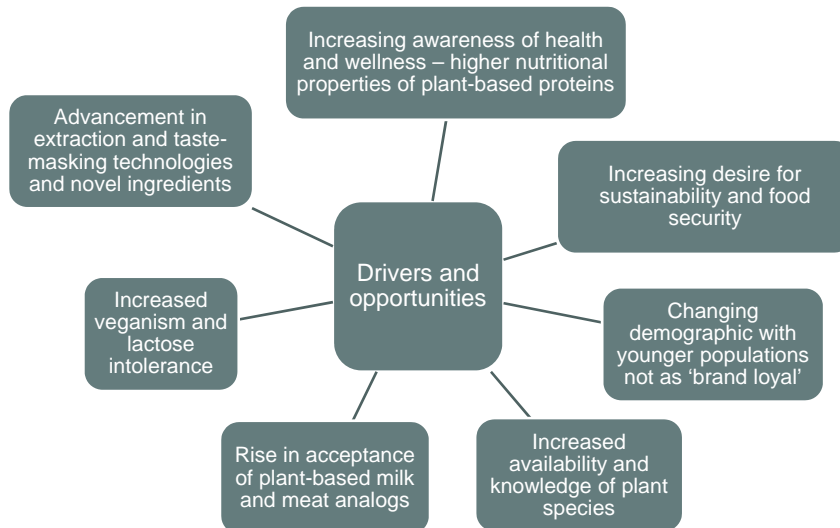
Plant Protein Ingredients Market: Percent Revenue Forecast by Region, Global, 2022



Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series – Opportunities in the Global Protein Ingredients Market, Forecast to 2022".

18

MARKET DRIVERS AND OPPORTUNITIES FOR PLANT-BASED PROTEINS



Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series – Opportunities in the Global Protein Ingredients Market, Forecast to 2022".

19

AUSTRALIAN CASE STUDIES



UTS's Deep Green Biotech Hub
Microalgae in a range of alternative food products

"By 2020, Australia's packaged vegan food market will be worth \$215 million"
Euromonitor International



Edible Bug Shop
Breeding insects for human consumption

"2.25 million Australians aged 18 and over live a meat-free life"
Source: Roy Morgan Research



Life Health Foods
Largest manufacturer of analogues in Australia

"Australia is the third fastest growing market in the world for vegan foods"
Euromonitor International

20

GLOBAL PLANT PROTEIN INVESTMENTS

Company	Market Activity Type	Year	Plant Protein Category	Description
Roquette	Expansion	2017	Pea Protein	The company is constructing a giant pea facility in Canada and the production is expected to begin in 2019 with a production capacity of 120,000 tons per year. Production of other plant-based proteins is also anticipated to add to the lines at a later stage in the coming years.
Dupont Nutrition	Product Launch	2017	Soy Protein	The company launched SUPRO XT55 Isolated Soy Protein that addressed functional limitations of previous technologies and offering product manufacturers direct cost savings.
ADM	Product Launch	2017	Wheat Protein	Launched a range of wheat protein concentrates, Nurtriance. The hydrolyzed wheat-sourced protein concentrate delivers 85% protein content, high glutamine content, and is expected to be used in formulation of cake, biscuits, bars, and beverages.
Tate & Lyle	Expansion	2017	All plant protein	The company unveiled its global innovation center in Germany, which aims to expand its customer-facing facilities. The facility now has dedicated areas of prototype production for dairy, convenience, bakery and meat preparation. The center will also hold innovation workshops, seminars, and on-site technical training.
Zivo Bioscience	Partnership	2017	Algae protein	The company partnered with feed additive producer NutriQuest to jointly develop and test animal nutrition products using Zivo's algae strain. The company also partnered with Algatek based in Spain. This is a cultivation partnership to produce its proprietary algae strain in photobioreactors.

Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series – Opportunities in the Global Protein Ingredients Market, Forecast to 2022".

21

START-UPS AND FUNDING IN PROTEIN MARKET*

Company	Product Category Focus	Funding
Soylent	Sports nutrition and meal replacements category: Offers products in the form of powder, beverages – free from animal protein, lactose and nuts.	\$50 million Series B
Before Brands	Infant formula: Peanut based products that allows kid's immune system to be prepared for any kind of food allergies. The products are a combination of peanut, egg, milk, fish, shellfish, tree nuts, soy, wheat, sesame, and Vitamin D.	\$35 million Series B round
Omni Active Health Technologies	The company excels in lutein and zeaxanthin natural extracts	\$35 million in a late-stage round
Macacha	Nutritional shake for women health	Undisclosed
NutriLeads	An innovative nutrition & health startup that makes ingredients for specific customer groups	Undisclosed – series A
Nutriati	Focused on developing new plant-based ingredient alternatives	\$8 million Series A
Finless Foods	Cultured meat and fish – The category involves growing meat or fish in a laboratory by applying methods of tissue engineering	Undisclosed
Memphis Meats	Cultured meat and fish	\$17 million Series A

*Amounts are in USD and proteins include animal and plant-based

Source: Frost & Sullivan (2018), "Agriculture and Nutrition Opportunity Engine Series"

22

START-UPS AND FUNDING IN PROTEIN MARKET*

Miyoko's Kitchen	Animal-based protein: dairy alternatives such as cheese using cashew nuts, rice and plant-derived oils	\$6 million Series B
Impossible Foods	Plant-based ingredients	\$257 million
Chirps and Bugsolutely China	Insect-based foods	Undisclosed
Mycro Technology	Sugar replacement category	\$35 million Series B
DouxMatok	An Israel-based sugar replacement product category company	\$8.1m in a Series A

*Amounts are in USD and proteins include animal and plant-based

Source: Frost & Sullivan (2018),
"Agriculture and Nutrition Opportunity
Engine Series"

23

Get in touch!

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