Technology Landscape & Economic Feasibility of the High Moisture Extrusion Technology

Case Study

FutureBridge

Case study: Technology Landscape & Economic Feasibility of the High Moisture Extrusion Technology

Client	A global food & additive supplier company
Industry	Food
Products	High Moisture extrusion for plant meat

Context

- Our Client, a global supplier in the food industry wanted to understand the domain of extrusion technologies, to transform the raw plant protein into fibrous meat analogue
- The client also wanted to know the active players in the value chain

Key Business Questions

- What are the recent technological advances that can influence, pose challenge for the high moisture extrusion technology in future?
- Who are the active players in value chain and what are their challenges & prospect on future of the technology?
- How is the upcoming technology different when compared to the existing one on the technical scale, consumer preferences and economical feasibility?

Engagement Scope

1 Technology Landscape

- What are the innovative/ emerging technologies?
- What are the prior art problem which is being worked upon for advancement of the technologies?
- What is the technology readiness level of the innovative & emerging technologies?
- What are the technological white spaces and need advancement?

2 Value Chain Analysis

- Who are the key players in the value chain? (for e.g. brand manufacturers, toll manufacturers, equipment manufacturers)
- What is the size of these identified players? (for e.g. startup, SME, big player, academia)
- What is the interdependent relationship among the players of value chain?

3 Technology Feasibility

- What is the innovative trend of the upcoming technology as compared to the current technology?
- What are the current unmet need and challenges in meat substitute market?
- How does the upcoming technology is being adopted by the customers?
- What is the relative margin difference between the current and upcoming technology?

4 Solution Framework

- What are the key technologies in the market? Which players are developing such technologies?
- What is the economical feasibility between the current and upcoming technology?
- What are the key drivers for extrusion technology in texturization of vegetable protein?
- Are there any other opportunity area in extrusion technology?

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Research Methodology

Secondary Research

- Conducted desk research for in-depth insights on different aspects of technology (for e.g.: new alternative protein, additive and coloring agent, formulation, moisture content)
- Conducted desk research to identify players in the value chain and their interdependency (for e.g.: brand manufactures, toll manufactures, equipment manufacturers)

Primary Research

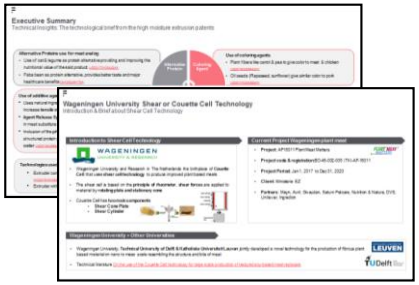
- 10 interviews with researchers at academia, R&D experts, manufacturers to understand economic feasibility, challenges and advancement of the high moisture extrusion over dry extrusion technologies for meat substitute market

Benefits to Client

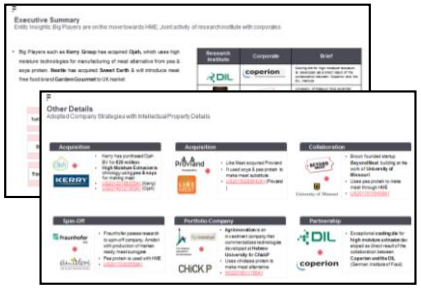
- Recent technological advances in the high moisture extrusion technologies capable of driving future market
- Identified potential toll or contract manufacturers
- Key Challenges and market drivers of the high moisture technologies
- Economic feasibility between dry and high moisture extrusion
- Overview of the market based on technology and players of value chain of high moisture extrusion was highlighted
- Brief overview about other opportunities in technologies such as shear cell and non extrusion technologies capable to overpower the high moisture extrusion

Sample Analysis

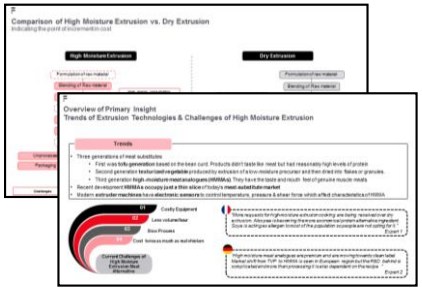
1 **Technology Landscape**



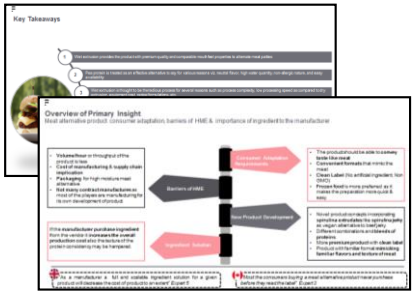
2 **Value Chain Analysis**



3 **Technology Feasibility**



4 **Solution Framework**



Thank you

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