Exploratory Landscape

Artificial intelligence (AI) in the food and beverage industry

Challenge

Artificial intelligence (AI) is increasingly gaining recognition as a tool to support business practices and operations, in part because of the growing popularity of generative AI programs such as ChatGPT and DALL-E. Over recent years, AI has become more cost efficient and open, and therefore has been adopted by an increasing number of



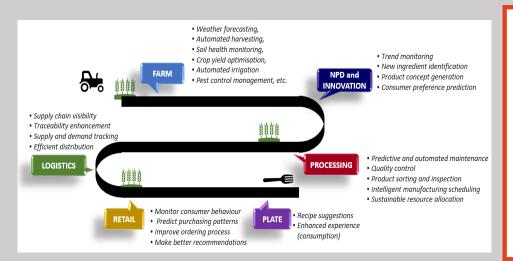
innovators across a range of industries. In this rapid landscape, Strategic Allies Ltd (SAL) focussed on gaining a better understanding of applications for AI within the food and beverage sector from 'farm to fork'. The landscape was designed to address three key questions: (1) Is AI being applied within the food and beverage industry? (2) Where are the future opportunities to use AI in the food an beverage sector? and (3) Who is developing AI for use by the food and beverage industry, either in-house or as a product or service?



The search

SAL initiated a 4 week rapid landscape (via secondary research) to identify examples of AI implementation at different stages of food and beverage production. For each example, SAL provided details on the specific AI technology being used, the intended application, stage of development, scale of roll out and details of any partners

supporting the initiative. Where possible, insights on the impact of AI use (for example, increased efficiency, better safety, novel ingredient identification etc.) were provided. The research identified several leading technology providers, with offerings tailored to food and beverage companies. The data demonstrated that some applications of AI yielded greater success that others, and adoption was more commonplace where there was a need to undertake highly repetitive tasks with a high level of accuracy. In the future, it is anticipated that AI will support the development of healthier foods to help tackle chronic disorders such as obesity and type 2 diabetes.



Outcome

- SAL presented a range of applications of AI within the food and beverage sector, with an evaluation of scale, stage of development and impact
- The insights could be used to inform digitalisation strategies and highlight potential partners to support implementation



