

Food Product Innovation to Improve Manufacturing Sustainability

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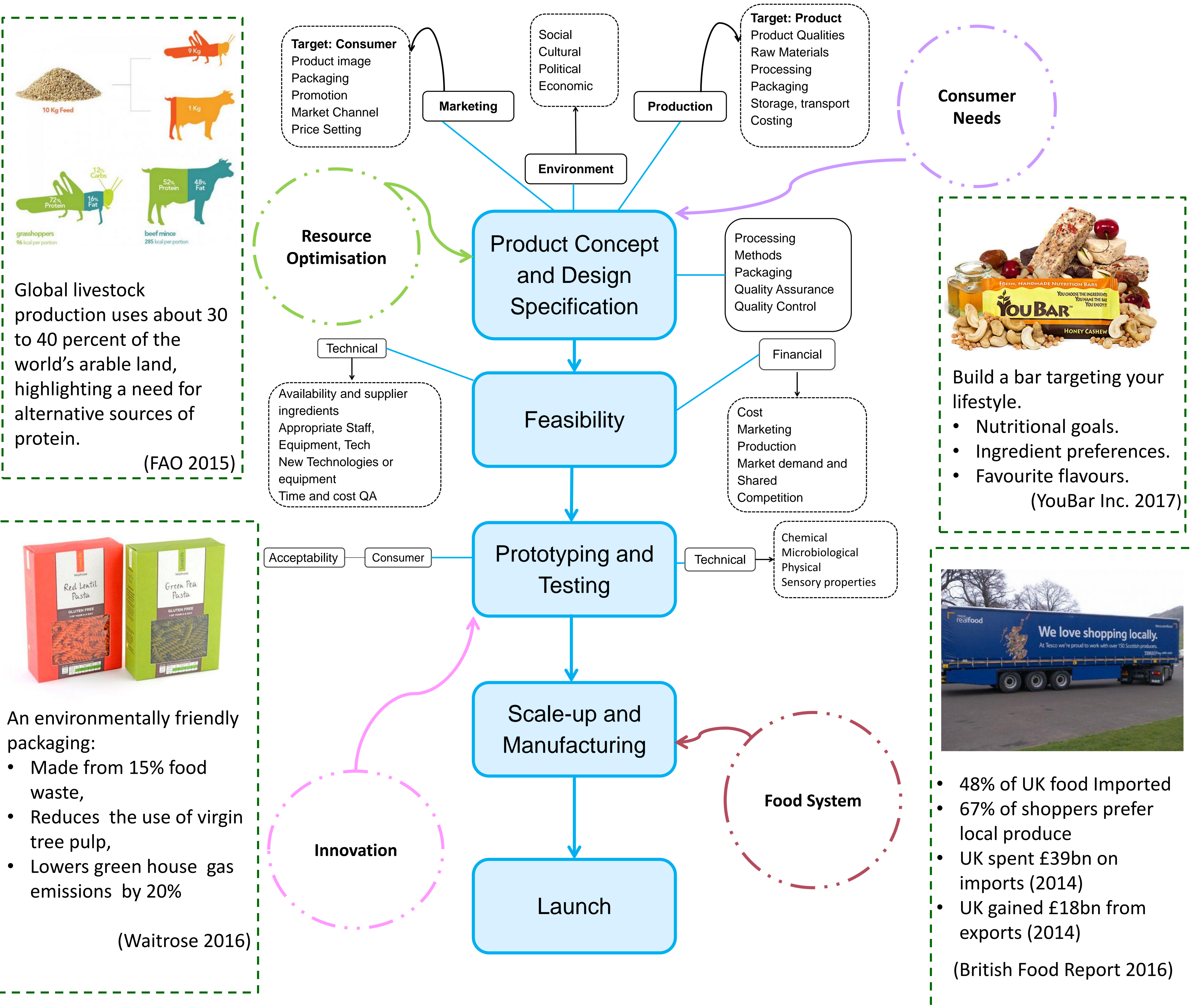
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Project Aim :

To investigate how challenges such as resource efficiency during manufacture, intelligent packaging to improve shelf-life, localisation of food production using available and varied ingredients, and food customisation to meet specific consumer demands can be addressed through the food product innovation and development process.



10 Kg Feed

9 Kg

1 Kg

12 Kg

72% Protein

16% Fat

52% Protein

48% Fat

grasshoppers 96 kcal per portion

beef mince 285 kcal per portion

Global livestock production uses about 30 to 40 percent of the world's arable land, highlighting a need for alternative sources of protein. (FAO 2015)

Build a bar targeting your lifestyle.

- Nutritional goals.
- Ingredient preferences.
- Favourite flavours.

(YouBar Inc. 2017)

An environmentally friendly packaging:

- Made from 15% food waste,
- Reduces the use of virgin tree pulp,
- Lowers green house gas emissions by 20%

(Waitrose 2016)

48% of UK food Imported

67% of shoppers prefer local produce

UK spent £39bn on imports (2014)

UK gained £18bn from exports (2014)

(British Food Report 2016)

Future work:

- Investigating a generic Food INnovation and Development (FIND) methodology to support a proactive approach to manufacturing sustainability of food products.
- Identifying additional information and knowledge required throughout FIND methodology to support key decisions.



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