

**SKILLS FRAMEWORK FOR FOOD MANUFACTURING
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Research and Development					
TSC	Product Improvement					
TSC Description	Analyse the technical specifications of manufactured food products and identify ways to make improvements					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		FMF-RND-2010-1.1	FMF-RND-3010-1.1	FMF-RND-4010-1.1	FMF-RND-5010-1.1	
		Support new food product technical specifications and prompt response to market opportunities	Assess revised food product formulations for validity and improvements by creating product prototypes and samples	Review existing products for areas of improvement and new or modified recipe formulations	Lead product improvements to support business growth	
Knowledge		<ul style="list-style-type: none"> Market trends, consumer behaviour patterns, customer feedback and other sources of information Elements of food product technical specifications Types of information relevant to generating product technical specifications 	<ul style="list-style-type: none"> Principles of food science Methods of analysing components of food products Methods of analysing components of raw materials used in manufacturing Types of equipment used to analyse the nutritional components of products or raw materials Methods for creating product prototypes and samples Good manufacturing practices (GMPs) 	<ul style="list-style-type: none"> Types of drivers for changing the specifications of products International food product regulations Food manufacturing processes Recipes and formulation of existing food products Business case development Methods of conducting manufacturing pilots Methods of measuring return on investment (ROI) 	<ul style="list-style-type: none"> Business strategies and objectives Factors impacting the cost of developing and manufacturing nutritional products Business implications of product changes and improvements Equipment operating capacity, process capability and other performance indicators and targets Agri-food and Veterinary Authority (AVA) regulations on commissioning of new food production lines Commissioning methods and requirements for food products, packaging and production processes 	
Abilities		<ul style="list-style-type: none"> Identify opportunities to improve products to enhance sales or efficacy Recognise business opportunities for new and/or modified products from sources of market information 	<ul style="list-style-type: none"> Analyse the technical specifications, chemical and nutritional make-up of food products Identify chemical and nutritional properties of ingredients for the manufacture of food products 	<ul style="list-style-type: none"> Translate product improvement objectives into tangible technical solutions Analysis product technical specifications for possible alterations and improvements 	<ul style="list-style-type: none"> Evaluate opportunities to enhance products Assess business and technical viability of improving and changing products Approve business cases for testing and 	

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		<ul style="list-style-type: none"> Gather relevant data to facilitate development of technical product specifications 	<ul style="list-style-type: none"> Review revised product formulations, manufacturing processes and the resultant samples for impact and alignment to product improvement objectives Produce technical reports of findings Support the development and testing of product prototypes 	<ul style="list-style-type: none"> Propose changes to the ingredient composition of food products to meet specified criteria Develop business case for making improvements to products Direct the development and testing of prototypes Review the manufacturability of refined products through test runs and manufacturing process pilots Review alignment of new products with international regulations pertaining to food products Measure the ROI for product improvements 	<p>implementing product improvement initiatives</p> <ul style="list-style-type: none"> Negotiate with relevant stakeholders to secure resources to support product improvements Initiate pilot test-runs of manufacturing processes for new products prior to full scale roll-out Assess regulatory compliance of proposed product optimisation interventions Seek clearance from AVA to carry out commissioning activities Evaluate success of product improvement interventions 	
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