

A **FoodInnovate** Initiative



Food For **Elders** Briefing & Workshop

22 Jun 2018, 9am – 12pm

Briefing on “Food For Elders” initiative

“Food For Elders”

- Programme to help food companies to develop elderly-friendly food products



- Outline:

- 1) Worked with *lead entities* (hospitals and nursing homes) to provide problem statements relating to elderly food needs in Singapore
- 2) Companies to develop products that can address problem statements with *innovation partners*
- 3) Companies to validate products with *lead entities*

Programme Outline

PROGRAMME / EVENT	DATE
<p>1) Company Briefing</p> <ul style="list-style-type: none">- Companies will be briefed on the “Food for Elders” initiative and problem statements collated from Lead Entities.- Information about the programme will also be available on the “Food for Elders” website	<p>22 Jun (Fri)</p>

Programme Outline

PROGRAMME / EVENT	DATE
2) Product Conceptualisation <ul style="list-style-type: none">- Companies to conceptualise product and provide brief write-up on proposed product to be developed (see Annex 2 for template).- Proposals will be routed to Lead Entities for matching and selection- Deadline for project proposal submission on “Food for Elders” website: <u>13 Jul (Fri)</u>	Jun to 13 Jul (Fri)

“FOOD FOR ELDERS” PROGRAMME

ANNEX 2

PRODUCT CONCEPT PROPOSAL

Please provide a brief write-up on the product to be developed. This will be sent to *Lead Entities* for assessment. The completed concept proposal form should be submitted on the “Food for Elders” website (<https://foodinnovate.ipi-singapore.org/innovation-call/food-for-elders>) by 13 Jul (Fri).

Organisation:	<input type="text"/>
Contact Person:	<input type="text"/>
Designation:	<input type="text"/>
Email:	<input type="text"/>
Contact Number:	<input type="text"/>

Company Background

Indicate your company’s main business activities, products/services produced, and key capabilities.

Description of Product Concept

Indicate the problem statement that you intend to address and the product to be developed. Description of the product should include: (i) type of food product, (ii) method of consumption/use, (iii) features that will address the problem statement, (iv) other elderly-friendly features, and (iv) projected product price.

Preferences for Collaboration and Information Sharing (if any)

Indicate any preferences for collaboration with Lead Entities and Innovation Partners, and any restrictions on how the information here shared will be shared.

Programme Outline

PROGRAMME / EVENT	DATE
<p>3) Discussion with Partners and CDG application submission</p> <ul style="list-style-type: none">- Companies with shortlisted proposals to link-up with Innovation Partners and Lead Entities to refine product concept and discuss the product development process.- Companies requiring financial assistance can tap on Capability Development Grant. Deadline for submitting CDG application on Business Grant Portal: <u>24 Aug (Fri)</u><ul style="list-style-type: none"><input type="checkbox"/> Project proposal (see Annex 3)<input type="checkbox"/> Letter of Interest (LOI) from Lead Entities (see Annex 4)<input type="checkbox"/> Supporting documents <p><u>Note:</u></p> <ul style="list-style-type: none">- The project and qualification of cost items will be subject to Enterprise Singapore's evaluation at the point of grant application.- Companies are encouraged to discuss the project scope and supportability with ESG prior to submitting the application.	<p>Jul to 24 Aug (Fri)</p>

Programme Outline

PROGRAMME / EVENT	DATE
4) Product development and validation with innovation partner and Lead Entity <ul style="list-style-type: none">- Companies to embark on product development with innovation partner and Lead Entity- Companies to also arrange for validation of products with Lead Entity	Sep 2018 - 3Q 2019 <i>Devt timeline may vary depending on the project.</i>
5) Product exhibition <ul style="list-style-type: none">- Companies will be required to exhibit developed products at stipulated event(s)- Event(s) will be confirmed at a later date.	[TBC] 3Q/4Q 2019

Grant Support

A. Qualifying companies

- Food manufacturing and services companies, and other companies moving into food products
- *[For CDG]* Eligible companies must have at least 30% local shareholding

B. Qualifying products

Qualifying product categories¹ include:

- Ready meals
- Desserts
- Snacks
- Beverages

Non-supportable products include:

- Supplements that do not constitute a meal occasion
- Food ingredients or plants with purported but unproven health benefits

¹ Enterprise Singapore will consider other product categories on a case-by-case basis. Some examples include: (i) condiments used to supplement a meal occasion, e.g. sauces, oils; (ii) processed food ingredients used in preparation of meals for the elderly, e.g. staples, processed food; and (iii) food packaging.

C. Criteria

- Project must involve New Product Development (NPD) to develop new food products that can address the problem statements listed by the Lead Entities².
- NPD must be conducted in Singapore
- Company must possess expertise in-house or engage an innovation partner to execute NPD
- Company must secure interest in the form of a Letter of Interest (LOI) from a Lead Entity for the proposed product (see [Annex 4](#))
- Company must exhibit developed products at stipulated event(s). Event(s) will be confirmed at a later date

² Proposals that do not address the listed problem statement but obtained LOI from Lead Entities will be assessed on a case-by-case basis.

Grant Support

D. Qualifying costs

- Manpower
- Consultancy cost for product development
Includes formulation to achieve desired nutrition (including cost of nutritional analysis), texture and taste; and shelf life extension
- Consultancy cost for product packaging / packaging innovation
To improve functional properties
- Equipment
Only specialised equipment required to produce elderly-friendly feature in product prototyping and validation phase
- Testing and certification
- Manufacturing costs (e.g. consumables)
Incurred in product prototyping and validation phase
- Intellectual Property (IP) licensing / acquisition costs
- Others, e.g. training

Project and qualification of cost items will be subject to Enterprise Singapore's evaluation at the point of grant application

E. Grant mechanics

- Eligible SMEs: Up to 70% of qualifying costs
- Reimbursement basis
- Companies need to meet the following deliverables for full grant disbursement:
 - (i) Complete supported cost items
 - (ii) Successfully develop the product
- Cash advancement of up to 20% of the total approved grant amount after project commencement. If necessary, companies can request for additional cash advancement after developing the product prototype. The total cash advancement provided shall be capped at 50% of the total approved grant amount.
- Terms and conditions for Capability Development Grant (CDG) will apply.

More Information

- **For programme details**
Refer to the “Food for Elders” Factsheet
- **For programme updates**
Refer to the “Food for Elders” website at:
<https://foodinnovate.ipi-singapore.org/innovation-call/food-for-elders>
- **For queries**
Email to Enterprise Singapore at: food_division@enterprisesg.gov.sg

Release of problem statements

Participating Entities

Lead Entities
Changi General Hospital Office of Innovation
Khoo Teck Puat Hospital Nutrition & Dietetics
Tan Tock Seng Hospital Clinical Research & Innovation Office
Econ Healthcare
NTUC Health Nursing Home
Orange Valley Nursing Homes

Innovation Partners
Food Innovation and Resource Centre (FIRC) @ Singapore Polytechnic
Nanyang Polytechnic Food Product Development & Food Safety Centre
Republic Polytechnic School of Applied Science
Temasek Polytechnic Centre for Applied Nutrition Services
National University of Singapore Food Science & Technology
Singapore Institute of Technology Chemical Engineering and Food Technology

Problem statement [A]: To develop ready-to-eat meals to address limited mobility of elderly living at home/community setting

Background

- Hard for the elderly living alone with limited mobility to purchase food
- Rely on limited range of food stored at home, leading to malnourishment
- More than 30% of elderly consumers require access to ready-to-eat/easy-to-prepare meals
- Access to such meals can improve the elderly's nutritional status, reduce risk of dietary deficiencies and hence lower risk of associated chronic diseases
- Increasing variety of ready-to-eat meals with local flavours and elderly-friendly features will improve nutritional intake and health outcomes for elders staying at home
 - Smaller quantity but more frequent meal occasions
 - Adequate nutrition with carbohydrate, protein, vitamins and minerals
 - Acceptable texture for elderly consumption; for elderly with swallowing difficulties

Desired Outcome

- Provide convenient meals with adequate nutrition and appropriate texture for elders with limited mobility at home/community setting

Optional

- Elder-care institutions occasionally require external catering/ready-to-eat meals due to kitchen maintenance or staff shortage
- Elderly-friendly meals for elder-care institutions

Problem statement [A]: To develop ready-to-eat meals to address limited mobility of elderly living at home/community setting

Requirements

Must have (Core):

- Carbohydrate and protein sources with vitamins & minerals to ensure product meet 25% of Recommended Daily Intake (RDI)
 - RDI for adults aged above 60: 1500-1800kcal per day
 - Small frequent meals to meet calorie and protein needs
 - Nutritionally balanced – calorie content of meal from:
 - Carbohydrate: 50-60%
 - Fat: 20-30%
 - Protein: 15%
- Acceptable texture for elderly consumption:
 - Food particle smaller than usual and bite size, e.g. cut-up solid food (1-2cm), soft solid food (0.1-0.5cm) or blended.
 - Moisture content of between 70-80%; density of between +/-0.9 to 1.2 g/ml and flowability +/->1 cm/30 sec
 - May vary depending on type of food
- Asian flavours acceptable to local elderly. Can be enhanced with herbs and spices:
 - Spices: Chilli, curry, five spice powder
 - Ginger, onions, garlic
 - Miso, sambal, etc

Nice to have (Flex):

- Pleasant and pleasing to the eyes
- Easy storage with reasonable shelf life, i.e. ideally > 1 month
- Packaging that is safe and convenient for elders with limited mobility to handle, e.g.:
 - *Preparation stage*: convenient to prepare; preparation process is safe for elders to handle
 - *Serving stage*: easy to open packaging for eating; safe for elders to touch after heating

Must not have:

- Short shelf life, i.e. < 5 days
- Foreign in taste

Problem statement [A]: To develop ready-to-eat meals to address limited mobility of elderly living at home/community setting

Market potential

- Sold to consumers at retail or pharmacies; and used in elder-care institutions
- More than 30% of elderly consumers require such meals. Estimated 7,000 meals per month could be required by lead entity if successfully developed
- Priced less than \$5 per serving (retail setting); about \$3 per serving (elder-care setting)

Problem statement [B]: To develop economic protein-rich natural food product for long-term nursing home residents

Background

- Protein necessary for elderly to maintain muscle mass and slow the onset of frailty; elderly consumers also require higher protein intake than regular adults due to less efficient digestive systems
- Challenging for elder-care institutions to provide high protein foods due to cost, time and manpower constraints of preparing such meals, particularly for nursing homes relying on donated food items and charitable funding
- Development of economical protein-rich natural food product/ingredient that can be added during meal preparing will improve meal nutrition for elder-care residents

Desired Outcome

- Develop food product or ingredient that is economical and can enhancing protein intake of meals served in elder-care institutions.

Problem statement [B]: To develop economic protein-rich natural food product for long-term nursing home residents

Requirements

Must have (Core):

- Enhance protein intake, with protein from a natural source
- Economical in terms of protein provided per dollar
- Easily digestible/absorbable by the elderly
- Must taste and look acceptable, e.g. Asian flavours acceptable to local elderly

Nice to have (Flex):

- Easy to incorporate / prepare during meal preparation

Must not have:

- Expensive
- Bad tasting

Market potential

- Products can be used for meal preparation in institutional settings (i.e. use in hospitals, nursing homes), and potentially for retail consumers in smaller packaging sizes
- Price will depend on the form of the product. As a guide, Singapore's nursing home industry average daily meal budget per resident is between \$6-10 per day (including 3 meals and snacks).

Problem statement [C]: To develop calorie- and nutrient-dense snacks, desserts and beverages suitable for the elderly

Background

- As the elderly consume smaller portions in main meals, snacks, desserts and beverages are important to supplement calorie and nutrition intake
- Elder-care institutions often lack manpower and equipment to prepare snacks, desserts and beverages consumed outside of main meals
- Off the market, lack in variety of snacks, desserts and beverages that are calorie- and nutrient dense, and are also suitable for elderly consumption in terms of texture (easy to chew) and taste (local flavours)
- Development of calorie- and nutrient-dense snacks, desserts and beverages will provide care-givers a means to supplement nutrition intake of the elderly
- *[Optional]* Patients with moderate to severe dysphagia will require modified texture to facilitate swallowing

Desired Outcome

- Snack, desserts and beverages that are calorie- and nutrient-dense and with local flavours that can be consumed by the elderly outside of their main meals
- *[Optional]* Snack, desserts and beverage created to also be suitable for patients with moderate to severe dysphagia, who will have more specific requirements for the texture of food and beverage served

Problem statement [C]: To develop calorie- and nutrient-dense snacks, desserts and beverages suitable for the elderly

Requirements

Must have (Core):

- Nutrient rich to supplement main meals
 - source of energy, protein (~15g), calcium, vitamin D, vitamin B12, dietary fiber (ideally), folate, vitamin C
- Local flavour to be adapted in the products
 - Beverages: e.g. barley drink, chrysanthemum tea, Longan
 - Desserts: e.g. bean curd, durian/mango-flavours
 - Snacks: e.g. nasi lemak/laksa flavours
- Appropriate texture and appearance
 - Soft foods and process-softened foods for easy chewing and swallowing
 - Retain visual appearance, mouthfeel, taste and aroma to cater to local preferences
- Operational/ Production Process and Storage
 - Shelf-stable at ambient conditions
 - *[Where applicable]* Can be chilled or served warm without compromising on texture and nutrients
- Shelf-life: Minimum of 3 days at ambient conditions
- No artificial additives, colourings, flavours

Nice to have (Flex):

- Contains probiotics, prebiotics, omega 3
- Food texture is suitable for patients with dysphagia
- Packaging that is easy for elderly and care-givers to identify and handle product
 - *Easy to open product packaging*
 - *On-The-Go packaging format for convenience, i.e. easy to carry*
 - *Easy for elderly to read contents and carry out instructions*
- Clear label of ingredient list and preparation instruction

Must not have:

- Products with low shelf-life
- Products that are high in sodium, sugar, trans fat and saturated fat. Please refer to HPB Healthier Choice Symbol Nutrient Guidelines: <https://bit.ly/2qLaRB8>

Problem statement [C]: To develop calorie- and nutrient-dense snacks, desserts and beverages suitable for the elderly

Market potential

- Products can be consumed by the elderly outside of main meals in institutional settings, at home or when travelling
- Price range of the snack or beverage: about \$1.00-1.50 per serving
- One institution has an estimated 250 consumers and could require 3,000 servings of product per month