Trade and Industrial Organisation Support Fund (TSF)

Final Report on Approved Project

Grantee : Technological and Higher Education Institute of

Hong Kong (THEi)

Implementation Agent(s) (if any): N/A

Project reference no.

Project title

T20 002 007
Establishment of a Food Innovation Centre to support

the food industry in developing new and innovative food products with applications of advanced taste sensing and analysis and shelf-life stability test

Period covered in this report (whole project duration)

From 15/02/2021

to 14/02/2024

(dd/mm/yyyy)

(dd/mm/yyyy)

1. Project Details

Project summary (in about 150 words)

Throughout the project, the Food Innovation Centre (FIC) has been established aiming to bring more food Innovation to the food industry as to enhance the overall competitiveness. Firstly, to equip the centre with capacity to collect sensory data in both objective and subjective way, the first-ever e-tongue in Hong Kong has been purchased. Promotional channels and materials have been created to connect with and share the latest information with the food industry. Sensory training workshops have been organized for equipping the food industry with practical knowledges and skills in performing standard sensory evaluation. A series of food symposiums have been organized for delivering the latest information on different food topics and offering a discussion platform. To further support the food industry, a practical guidebook on sensory evaluation has been published and freely distributed. Pilot study (in total 2 phases) has been provided to selected companies as to provide solutions to the stated problems or advancement to be achieved.

Project objectives (in about 50 words)

The project aims to enhance the competitiveness of the food industry and to reinforce Hong Kong's reputation as a "Gourmet Paradise" of the world through the establishment of a Food Innovation Centre (FIC). The FIC will provide education and training services and conduct pilot studies to help the local food industry develop innovative products and processes.

Collaborating Organisations (if any)

College of Agriculture Food & Rural Enterprise (CAFRE)

Name

Hong Kong Food Council Limited

Hong Kong Food Professionals Association Limited

Institution of Dining Art Limited

Key personnel

Revised (if applicable)

Project Coordinator	: <u>I</u>	Dr. CHAN Shun Wan	Head of Department, Department, Sciences, THEi	ent of Food and Health
Deputy Project Coordinator		Dr CHOI Siu Mei	Assistant Professor, Departme Sciences, THEi	nt of Food and Health
Project duration				
		Commencement of	late Completion date	Project duration
		(dd/mm/yyyy)	(dd/mm/yyyy)	(no. of months)
As stated in th	e proje	ect		
agreement		15/02/2021	14/08/2023	30 months

N/A

Post title and name of organisation

14/02/2024

36 months

2. Summary of Project Results

Governance

Please state the composition of the steering committee (or other committees) formed under the project. Dr. KO Wing Man, Orthopedic specialist, the member of The Medical Council of Hong Kong, and the Chairman of The Hong Kong Anti-Cancer Society

Dr. Allen HO, Executive Vice President - Technical Services of Lee Kum Kee International Holdings Ltd

Prof. PUN Kwok Leung, Dean of Faculty of Science and Technology, THEi

Mr. Timothy CHEUNG, Chairman of Hong Kong Ganoderma Centre Ltd

Ms. Carol SIU, Director of Apple Sweet Ltd.

Mr. Andy YEUNG, Manager of Fu Kee Food Company

Mr. CK LAI, General Manager of Brand Fresh (Hong Kong) Company Ltd.

Project deliverables

Please list out the project deliverables carried out <u>during the project duration</u> in accordance with the approved project proposal and provide details on the actual result achieved for each deliverable.

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
1. Establishment of the Food Innova			
a. Food Innovation Centre Location: Food Processing Laboratory (165 m²) in Room 801 in THEi (Tsing Yi). Business hour: 0900 - 1800 (Mon – Fri excluding public holidays)	Duration: July 2021 – June 2023 (24 months) Participants: 450 visitors Flexible booking system Number of enterprises/ users: 150 Expected total no. of participants: 600 (450+150)	Duration: July 2021 – February 2024 (32 months) Total no. of Participants: At least 964 visitors Flexible booking system has been created on THEi webpage and FIC official website, publicly available. No. of users have been counted into the total no. of participants above.	N/A
b. Procurement of Electronic Taste Sensing System	1 set of Electronic Taste Sensing System (E-tongue), including: electronic taste sensing system electronic tablets for sensory data collection software and PC for data analysis	Quantity: 1 set of Electronic Taste Sensing System (E-tongue), including electronic taste sensing system for sensory data collection software, and PC for data analysis	N/A

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for no achieving the target (if applicable)
2. A 5-minute Introduction Video of F		(FIC)	
Launching date: 1st version [1:28 mins] launched on 10th Jan 2022	Target length of video: 5 minutes	Actual length of video: 5 minutes	N/A
2 nd version [5:02mins] completed on 28 th Feb 2022, launched on 12 th Oct 2023			
Languages in voice-over: Cantonese			
Languages in subtitles: Chinese and English	* · I		
Broadcasting channels: Youtube; Youtube video has been embedded or shared on FIC websites and social media platform as well.			
Softcopy available at: 1st version [1:28mins]: https://www.youtube.com/watch?v=2 pldavp5zsw 2nd version [5:02mins]:			
https://www.youtube.com/watch?v=d ltK4bo2KVk&t=57s			
Content: Introduction of FIC and its services; and testimonials and endorsements of the supporting organizations			
3. A Practical Guidebook of Sensory	Evaluation Mathods on	Innovative Food	
Publishing date: 30th Jun 2022	Target no. of printed copies: 500 units	Actual no. of printed copies: 500 units	N/A
 Topics covered: Fundamental Sensory Science and Sensory Evaluation Step-by-step instructions on various types of experiments in sensory evaluation for different objectives 	No. of pages: 68 pages	No. of pages: 76 pages (71 content pages, 2 covering pages, 3 back covering pages)	
 Introduction on e-Tongue, its application and examples Specific terms and templates for different experiments in sensory evaluation 			
Distribution channels: Available free-of-charge to participants in food industry who join FIC workshops, opening ceremony, technical conference and symposiums. The e-version guidebook is available on FIC websites, and could be sent via email upon request as well.			

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
https://theifichk.wixsite.com/fichk/ac tivities FIC webpage on THEI site https://www.thei.edu.hk/departments/department-of-food-and-health-scienc es/facilities/food-innovation-centre/fic-activities 4. One-day Opening Ceremony cum Date: 23rd July 2022 Time: 12:00 – 18:00 (6 hours) Venue: Charles K.Kao Auditorium and Pre-function Hall, 1/F, Building 10W, 10 Science Park West Avenue Hong Kong Science Park, Shatin, New Territories		Actual no. of participants: 369* *Calculated by the sum of the followings: No. of face-to-face participants: 215	applicable) N/A
 Topics covered: Contemporary Sensory and Consumer Research for Food Product Development Current Global Trend in Innovative Food Research and Development Future Direction of Innovative Food Development Professional Wine Tasting and e-tongue Application FIC Deliverables & Future Plan Speakers: local industrial specialists Mr. Paolo Gorreri, Manager (International Development), Hotel and Tourism Institute / Chinese Culinary Institute / International Culinary Institute Mr. Ricky TSUI, Programme Manager (Western Catering & Wine), Hotel and Tourism Institute / Chinese Culinary Institute / International Culinary Institute / International Culinary Institute Mr. WAN Chi Ching, Keith, Founder of Eggology, Muk Chai Kee Limited (China) 2 overseas specialist from the CAFRE Mr. Peter Simpson, Director, College of Agriculture Food & Rural Enterprise, UK (CAFRE) 		No. of online participants on event day: 9 In total, 154 online participants (estimated by view as of 14 Feb 2024) has attended the Opening Ceremony cum Technical Conference, with the Youtube live remains public on FIC Youtube Channel and the link has been promoted to the public, including the registered participants.	
- Prof. Rebecca Bleibaum, President, Sensory Intelligence Dragonfly Sensory & Consumer Insights, Inc.(USA) 1 THEi representative (included in			

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
one of local speakers) - Dr MAN Ka Man, Carmen, Lecturer & FIC Project Manager, Faculty of Science and Technology, Technological and Higher Education of Hong Kong (THEi)			
Link of Youtube Live for re-watch: https://www.youtube.com/live/-oSfk0 SDV5M?si=7xOetPTZtUrxMKfK			
Other details: Six exhibits have been displayed at the venue of the Conference: 1. e-tongue Introduction and Industrial Liaison with THEi and FIC 2. Wine Sensory Label 3. Innovative Food Exhibits 4. Innovative Food Packaging Exhibits 5. Innovative Food Technology Exhibits 6. Innovative Beverage Exhibits			
5. Training Workshops			
1st Training Workshop Date: 17th January 2022 Time: 13:00 – 17:00 (4 hours) Venue: THEi Tsing Yi Campus Topics covered: Introduction on e-tongue operation and application Sensory evaluation method with practical sessions Facilitators and Speakers: Dr MAN Ka Man, Carmen, Lecturer & FIC Project Manager, Faculty of Science and Technology, Technological and Higher Education of Hong Kong (THEi) Mr. KAN Wing Fai, Ken, FIC Project Officer, Faculty of Science and Technology, Technological and Higher Education of Hong Kong (THEi) Mr. KAN Wing Fai, Ken, FIC Project Officer, Faculty of Science and Technology, Technological and Higher Education of Hong Kong (THEi) Other details: Workshop was held in form of hybrid mode, i.e. face-to-face and online, due to social distancing policy under Covid-19.	Target no. of participants: 50	Actual no. of participants: 73* *Calculated by the sum of the followings: 20 on-site participants 53 online participants	N/A
2nd Training Workshop Date: 30 th June 2022 Time: 13:00 – 17:00 (<u>4</u> hours)	Target no. of participants: 50	Actual no. of participants: 65*	N/A

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
Venue: THEi Tsing Yi Campus	proposition	*Calculated by the sum	присполе
Topics covered:		of the followings:	
Introduction on e-tongue		50 on-site participants	
operation and application			
Sensory evaluation method with practical sessions		15 online participants	
Lab tour in Food Processing Laboratory and Sensory Laboratory			
Speakers:			-
Dr MAN Ka Man, Carmen, Lecturer		n.	
& FIC Project Manager, Faculty of			
Science and Technology, Technological and Higher Education	, and the second second		
of Hong Kong (THEi)		6.18 Will 1	i alian
0.1			
Other details: Workshop was held in form of hybrid mode, i.e. face-to-face	Size .		
and online, as to increase the capacity			
of workshops.			
6. Symposium (Face-to-face & Online	e)		
Food Symposium 1 – Food Sensory	Expected total no. of	Total no. of	Both
and Neuro-gastronomy	participants: 250	participants: <u>180 (47 +</u>	face-to-face and
Date: 19 th November 2022 Time: 12:00 – 18:00 (6 hours)	participants	133) participants	online participations
Venue: Charles K.Kao Auditorium,		102 registered	did not achieve
1/F, Building 10W, 10 Science Park		participants	the target. It
West Avenue Hong Kong Science	150 6	45.0	might be due to
Park, Shatin, New Territories	150 face-to-face participants	47 face-to-face participants	the followings:
Topics covered:	participants	participants	1/ Insufficient
Neuro-gastronomy	100 online	18 online participants	promotional
Introduction of Electronic	participants	on the event day.	period (~34
Sensing System - Electronic Nose/Eye/Tongue and Its		In total, 133 online	days). Longer promotional
Application		participants (estimated	period should be
Sensory Evaluation Methods in		by view as of 14 Feb	planned as to
New Food Product Development		2024) attended the	reach more
Speakers:		Food Symposium 1, with the Youtube live	potential audience.
3 local speakers		remains public on FIC	
1. Dr. CHAN Tat Ming, Danny,		Youtube Channel and	2/ Affected by
Head of Division of		the link has been	the pandemic,
Neurosurgery, Prince of Wales Hospital		promoted to the public, including the registered	participants might have
2. Dr. Desmond HAU , Director of		participants.	preferred to join
Marketing, Bio-Gene			Symposium 1
Technology Limited		1	online at their own comfort
3. Mr. Sid LI , Technical Support Manager, Alpha MOS China			and
Training of, 7 riphia 11700 Chinia			convenience.
1 oversea speaker from CAFRE	и	-	With this
Dr. Emanuele Armaforte, Senior			change in participation
Food Technologist, College of Agriculture Food & Rural Enterprise,	2	1	preference,
UK (CAFRE)	-		participants for

Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
		the online mode should be more than face-to-face mode. The team speculated this pattern might occur for the following two Symposiums. To address this change of mode, Youtube Live is set to be publicly available.
Expected total no. of participants: 250 participants 150 face-to-face participants 100 online participants	Total no. of participants: 154 (50 + 104) participants 102 registered participants 50 face-to-face participants 7 online participants on the event day. In total, 104 online participants (estimated by view as of 14 Feb 2024) attended the Food Symposium 2, with the Youtube live remains public on FIC Youtube Channel and the link has been promoted to the public, including the registered participants.	Both face-to-face and online participations did not achieve the target. It might be due to the followings: 1/ Insufficient promotional period (~15 days). Longer promotional period should be planned to reach more potential audience. 2/ Change in participation preference after pandemic
	(as stated in the approved project proposal) Expected total no. of participants: 250 participants 150 face-to-face participants 100 online	Expected total no. of participants: 250 participants 150 face-to-face participants 100 online participants 100 online participants 101 online participants 102 registered participants 103 face-to-face participants 104 online participants 105 face-to-face participants 106 online participants 107 online participants on the event day. In total, 104 online participants (estimated by view as of 14 Feb 2024) attended the Food Symposium 2, with the Youtube live remains public on FIC Youtube Channel and the link has been promoted to the public, including the registered

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
GIST0?si=MFNwfT1N_TEZuNyJ			
Food Symposium 3 Date: 30th January 2024 Time: 12:00 – 18:00 (6 hours) Venue: Charles K.Kao Auditorium, 1/F, Building 10W, 10 Science Park West Avenue Hong Kong Science Park, Shatin, New Territories Topics covered: • 3D printing technology for food industry • Elderly nutritional care and swallowing management • Care food ecosystem and development • Super food technology Speakers: 8 local speakers 1. Dr Dr. Karen CHAN, Director of Swallowing Research Laboratory (HKU) 2. Dr. Ewe Joo Ann, Technical Manager, NAMI 3. Mr. Gordon CHEUNG, Immediate Past President of Hong Kong Nutrition Association 4. Prof Lorna Kwai Ping SUEN, Dean & Professor, School of Nursing, Tung Wah College 5. Mr. Johnson LO, Co-founder & CEO of KOLB LIFE Limited 6. Mr. Jim Cheung, Manager in Solutions Hub Co-Creation, Hong Kong Council of Social Service 7. Mr. Kim Leung, Business Co-ordinating Manager, CookEasy, Tung Wah Group of Hospitals 1 oversea speaker Dr. Nicola Stanley, Global Harmonization Initiative Board 2 THEi representative (included in one of local speakers) 1. Prof. Alan Kin Tak LAU, President, Technological and Higher Education of Hong Kong (THEi) 2. Dr. CHOI Siu Mei, Emily, Assistant Professor & FIC Project Manager, Department of	Expected total no. of participants: 250 participants 150 face-to-face participants 100 online participants	Total no. of participants: 267 (56 + 211) participants In total, there are 201 registered participants, where 87 indicated they will participate onsite and 114 indicated they will participate online. 56 face-to-face participants on the event day. In total, 211 online participants (estimated by view as of 14 Feb 2024) attended the Food Symposium 2, with the Youtube live remains public on FIC Youtube Channel and the link has been promoted to the public, including the registered participants.	N/A

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
Link of Youtube Live for re-watch: https://www.youtube.com/live/WDzE 5xC1RU4?si=eoRXDyqwm03xsKq1	- 10		
7. Webpages building on existing TH			MANUTE SERVICE
a. FIC webpage in existing THEi website Launching date: 31/07/2021 Web address: https://www.thei.edu.hk/departments/department-of-food-and-health-sciences/facilities/food-innovation-centre/about-us	Target no. of website / webpages: 1 set	Target no. of website / webpages: 1 set, including: (a) 1 webpage in existing THEi website (c) 1 FIC website built on WIX.	N/A
Contents: FIC background, latest news on events and activities and food news. b. FIC Website (Closed) Launching date: 07/10/2021 Web address: https://www.fichk.com Contents: FIC background, latest news on events and activities and food news. c. FIC website (Latest version) Launching date: operation started on 08 Nov 2023 and officially announced on 30 Nov 2023 Web address: https://theifichk.wixsite.com/fichk Contents: FIC background, latest news on events and activities and food news. Other details: Website (a) and (c) will be maintained for at least 6 months after the project period until 14 August 2024.			
8. Pilot studies Date of competition: 14 Feb 2024 Vetting parties: Steering committee of this project	Target no. of participating enterprises:	Actual no. of valid participating enterprises:	N/A
Vetting criteria: 1. The participating should be in operation and the company must be on registered list of food licence holders of FEHD. 2. The pilot studies should have		No. of registered enterprises: 49	

	Details of the deliverable conducted	Quantifiable target (as stated in the approved project	Actual result achieved	Reasons for not achieving the target (if
-	clear objectives and	proposal)		applicable)
	implementation plan, strong			
	potential for impactful results to	× .		
	the food industry, substantial	,		
	level of technology content in the			,
	investigation, and			
	high-value-added end-products.			
3.	The participating companies are			2
	required to share the result			
	findings and experiences of the			
	pilot study with the local food			
	industry. The result will be			
	shared on the FIC's webpage,	1 2 2		1
	which will be maintained for at	, 11	4.1 6.1	
	least 6 months after the project	5 5 2 1 3	6 P 1	
	period until 14 August 2024, and	75	a strategy to	_
	Facebook page.		1. 化二唑 医甲基毒素 1.	*
Mot	thodology:		1000年間	
1.	The participating companies are			
1.	screened by the selection criteria.			
2.	Individual meetings will be			
	arranged for each participating			
	company. FIC representatives			
	from THEi will provide			
	professional consultation service			
1	tailored for each participating			
	company. The objectives and			
19.4	expected outcomes of the pilot			
1	studies will be examined. One	· 10.4 年		
	representative food product from			
	each applicant is conducted to			
0.00	meet the objectives and outcomes.			
	The experimental design,			1 1 1 1 1 1
	materials and instruments will be			
	delivered and conducted the			- 24
	assessment with appropriate			L 500 -140
	modification to achieve the			
	objective and outcomes.			J 19-58
4.	Interim report and discussion			1,44
	meeting will be arranged			
	mandatorily after 12 months to			
	update the progress of each pilot			
	study.		The second second	
	Each pilot study will come to an			
	end when the objectives and outcomes have been achieved.		In a median to	
	outcomes have been achieved.		A1 1 7	
Oth	er details:		6 4	1
	a free of charge service.			
9. Pı	romotional activities	, , , , , , , , ,		
	a. Leaflets	Target no. of designs:	Actual no. of designs:	N/A
		1 set (Chinese and	1 set (Chinese and	-
	tents:	English version)	English version)	
	Background and service of FIC			
	Promotion on FIC Facebook,	Target no. of printed	Actual no. of printed	2.
	Instagram and website	copies: <u>500 pcs</u> (250	copies: <u>500 pcs</u> (250	

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
Distribution channels: e-leaflet was sent via email to all licensed food manufacturers, caterers and related food traders. Hard copies were delivered by hand to food manufacturers and traders and as a promotion information to deliver during FIC activities	pcs Chinese version and 250 pcs English version)	pcs Chinese version and 250 pcs English version)	y-
b. Posters Contents: Background and service of FIC Promotion on FIC Facebook, Instagram and website Promotion on FIC Opening Ceremony cum Technical Conference Distribution channels: e-poster was sent via email to all licensed food manufacturers, caterers and related food traders. Hard copies were delivered by hand to food manufacturers and traders and as a promotion information to deliver during FIC activities	Target no. of designs: 1 set (Chinese and English version) Target no. of printed copies: 200 pcs (100 pcs Chinese version and 100 pcs English version)	Actual no. of designs: 1 set (Chinese and English version) Actual no. of printed copies: 200 pcs (100 pcs Chinese version and 100 pcs English version)	N/A
c. Online Advertisements Online Advertisement 1 Content: Promotion on Opening Ceremony Total promotion period: 12 days Online Advertisement 2 Content: Promotion on Pilot study (1st phase) Total promotion period: 36 days Online Advertisement 3 Content: Promotion on Food Symposium 1 Total promotion period: 34 days Online Advertisement 4 Content: Promotion on Food Symposium 2 Total promotion period: 15 days Online Advertisement 5 Content: Promotion on FIC Total promotion period: 109 days Online Advertisement 6 Content: Promotion on Guidebook Total promotion period: 111 days	Target no. of online advertisements: 12-15 on FIC's Facebook page Total promotion period for all online advertisement: 20 months (around 600 days)	Actual no. of online advertisements: 15 on FIC's Facebook page Total promotion period for all online advertisement: Around 22 months (648 days)	N/A

Details of the deliverable conducted	Quantifiable target (as stated in the approved project proposal)	Actual result achieved	Reasons for not achieving the target (if applicable)
Online Advertisement 7 Content: Promotion on FIC Video Total promotion period: 29 days			
Online Advertisement 8 Content: Promotion on Food Symposium 3 Total promotion period: 76 days			
Online Advertisement 9 Content: Promotion on Pilot study (2 nd phase) Total promotion period: 16 days			
Online Advertisement 10 Content: Promotion on Guidebook Evaluation (for post-project evaluation) Total promotion period: 61 days			#
Online Advertisement 11 Content: Pilot Study Outcome Sharing 1 Total promotion period: 30 days			
Online Advertisement 12 Content: Promotion on FIC new website Total promotion period: 60 days			
Online Advertisement 13 Content: Pilot Study Outcome Sharing 2 Total promotion period: 30 days			
Online Advertisement 14 Content: Promotion on Food Symposium 3 (poster) Total promotion period: 15 days			
Online Advertisement 15 Content: Promotion on Food Symposium 3 (Post-event) Total promotion period: 14 days			
		_	

Key implementation stages

Please indicate in the status below if the deliverable is completed according to schedule (C), completed but delayed (D) or not achieved (N). If it is delayed or not achieved, please indicate the actual completion date (if applicable) and provide the reasons.

	Project deliverable (all deliverables as set out in the approved project proposal)	Original target completion <u>date</u> ¹	Actual completion date (if applicable)	Status (C/D/N)	Reasons for not meeting the original target completion date
(a)	Establishment of the FIC – Procurement of the taste sensing system, appointment of a Project Manager and recruitment of a Project Officer, and design and production of the FIC website	31/07/2021	N/A	C C	N/A
(b)	Establishment of the FIC – Design and production of the FIC promotional video	31/07/2021	28/2/2022	D	Note (i)
(c)	Updating of the webpages and sharing of latest information with practitioners in the food industry	14/8/2023	14/02/2024	С	Note (ii)
(d)	Preparation of the practical guidebook of sensory evaluation methods on food design	30/06/2022	N/A	С	N/A
(e)	Opening ceremony cum the first technical conference of FIC	31/12/2022	N/A	C	N/A
(f)	Six pilot studies with food industry	30/06/2023	14/02/2024	C	Note (ii)
(g)	Two training workshops	14/08/2023	N/A	C	Note (ii)
(h)	Three Symposiums	14/08/2023	31/01/2024	C	Note (ii)
Mat			777 5 15 15	TO BE 18-1	

Note:

(ii): Approval of change request was granted on 13 October 2023 to extend the period.

⁽i): Since the project officer was on-board in May 2021, the procurement process for the video was delayed.