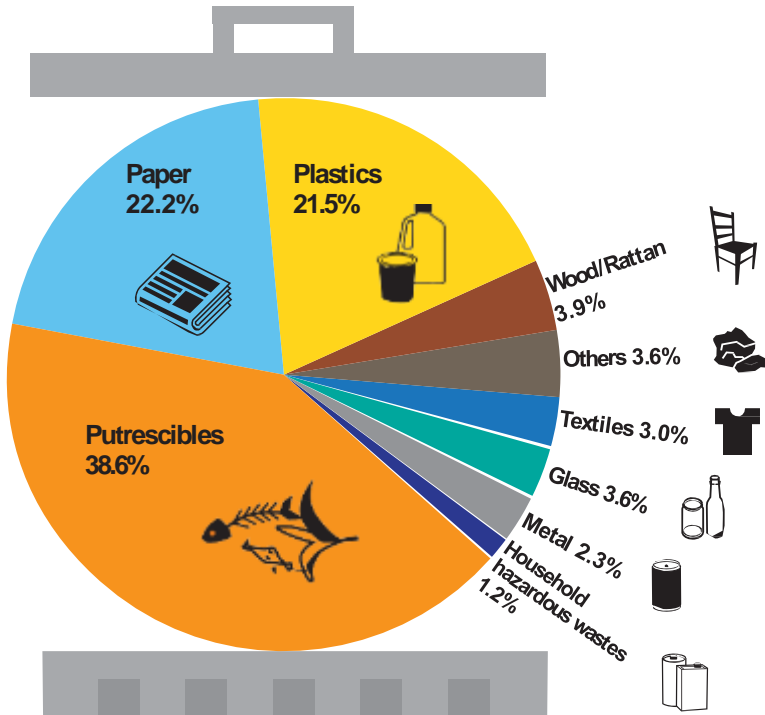


Food Waste Recycling: Sustainable Management of Resources

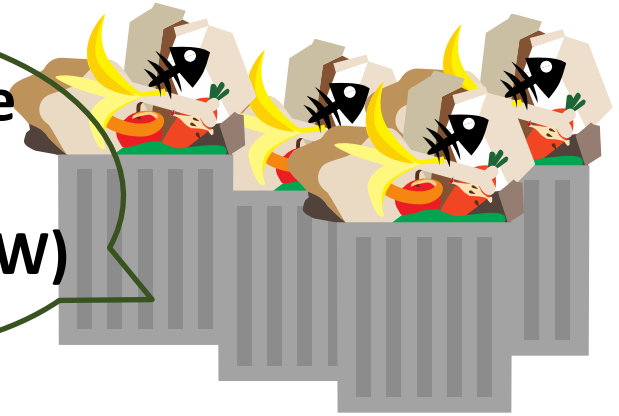


18 May 2017
HKQAA Symposium 2017

Food Waste in Hong Kong in 2015

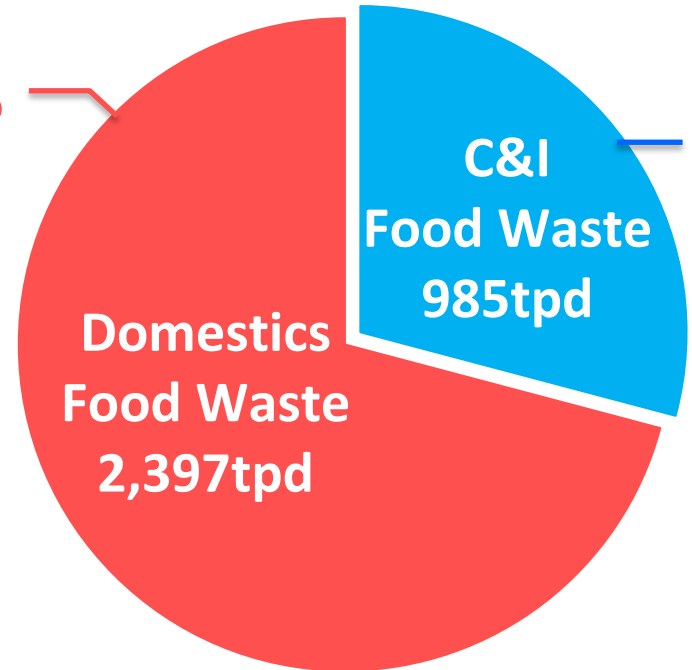


**Food Waste
~3,380tpd
(~33% of MSW)**



Total MSW in 2015
10,159 tonnes /day

23.4%



9.6%



Before 2010 : All Food Waste Was Landfilled



Food Waste Management since 2010



廚餘 Food Waste Recycling Cooperation Project
循環再造合作計劃

廚餘絕跡 環境再現生機

香港每天產生廚餘約3,200公噸，工業廚餘佔三分之一。近年更持續上升，環境保護署於2009年與有關工業家一起成立了「廚餘循環再造合作計劃」，推行「轉廢為寶」減廢行動，鼓勵企業與製造商、酒店、超市、商場等推行廚餘分類及回收系統，鼓勵公眾參與回收及減少產生廚餘，以減低轉運廢物對環境造成的污染。

www.foodwaste.org.hk



屋苑廚餘循環再造項目

Food Waste Recycling Projects in Housing Estates

廚餘循環再造計劃

屋苑廚餘循環再造項目服務平台聯絡處
Help-desk Service for Food Waste Recycling Projects in Housing Estates

電話 Tel: 2780 5590 傳真 Fax: 2780 5608
電郵 Email: fd-@wsp@hkpc.org
網址 Website: http://hd-fwr.hkpc.org

Food Waste Recycling Partnership Scheme



To separate food waste at source



Restaurants



Hotels



Markets



Food Factories



Shopping Malls



Property Management Co.

Food Waste Recycling Partnership Scheme

The Scheme started in June 2010

Over 270 organizations have participated in the Scheme and about 2,500 tonnes of food waste has been collected and recycled.

Up to April 2017



Deliver to EPD's Kowloon Bay Pilot Composting Plant



Restaurants etc. separate the food waste



Turn food waste into compost



Compost is suitable for use in farms & gardens

ECF Food Waste Recycling Projects in Private Housing Estates

July
2011

ECF projects in 31 housing estates covering over 60,000 households

April
2017

About 1,110 tonnes of food waste turned into 220 tonnes of compost per year



Seminars on food waste reduction and recycle



Residents deliver separated food waste to management office

On-site composting machines turn food waste into compost



Compost used in landscaping and growing vegetables for residents' consumption



ECF Food Waste Recycling Projects in Private Housing Estates

- Engage NGOs to conduct education programmes on food waste avoidance, reduction and source separation



A New Chapter on Food Waste Management



2014...

...2022



Reduction at Source



Reuse & Donation



Recyclable Collection



Waste to Energy



Target



-40%

Daily Disposal Rate

Public Education and Promotion

惜食 香港
Food Wise Hong Kong

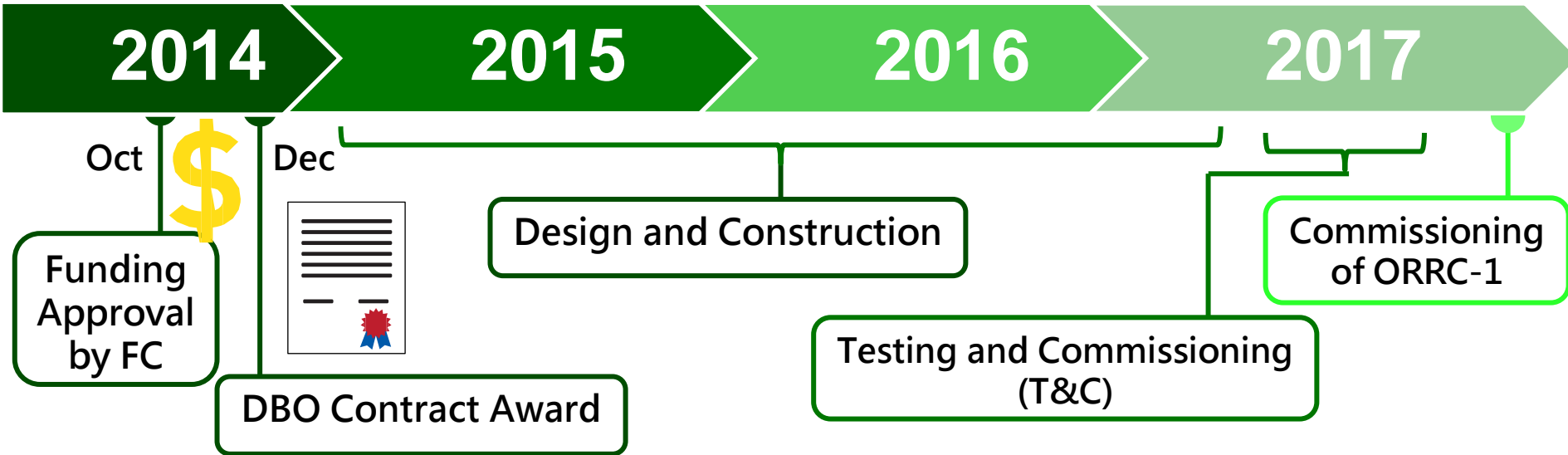
Food Wise
Eateries
咪咗嘢 食店



Organic Resource Recovery Centres (ORRCs)



Development Progress of ORRC-1



This is only a conceptual projection of what the plant may look like. (Source: OSCAR Bioenergy JV)

Organic Resource Recovery Centres Phase 1 (ORRC-1)

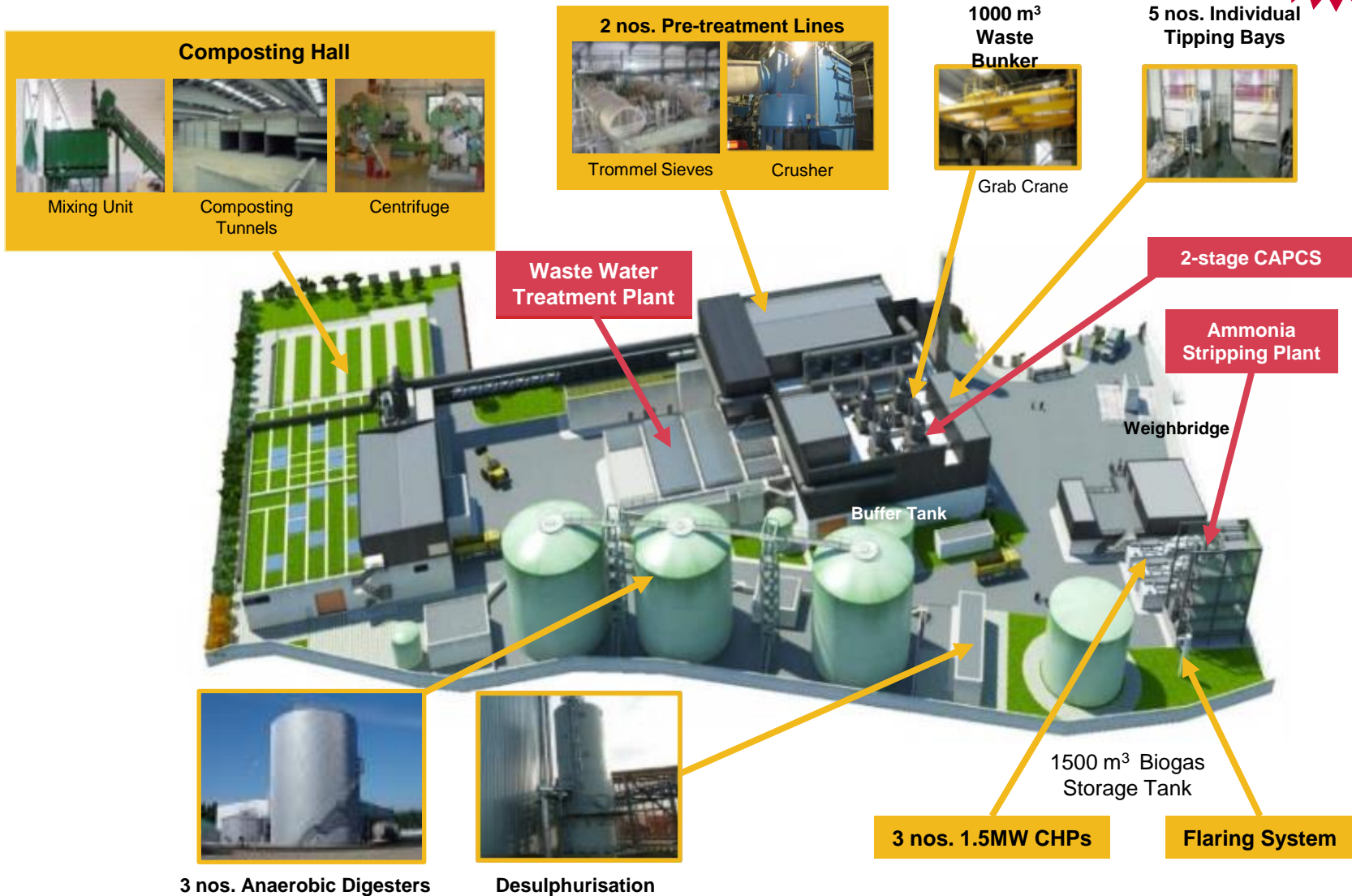


Highlights

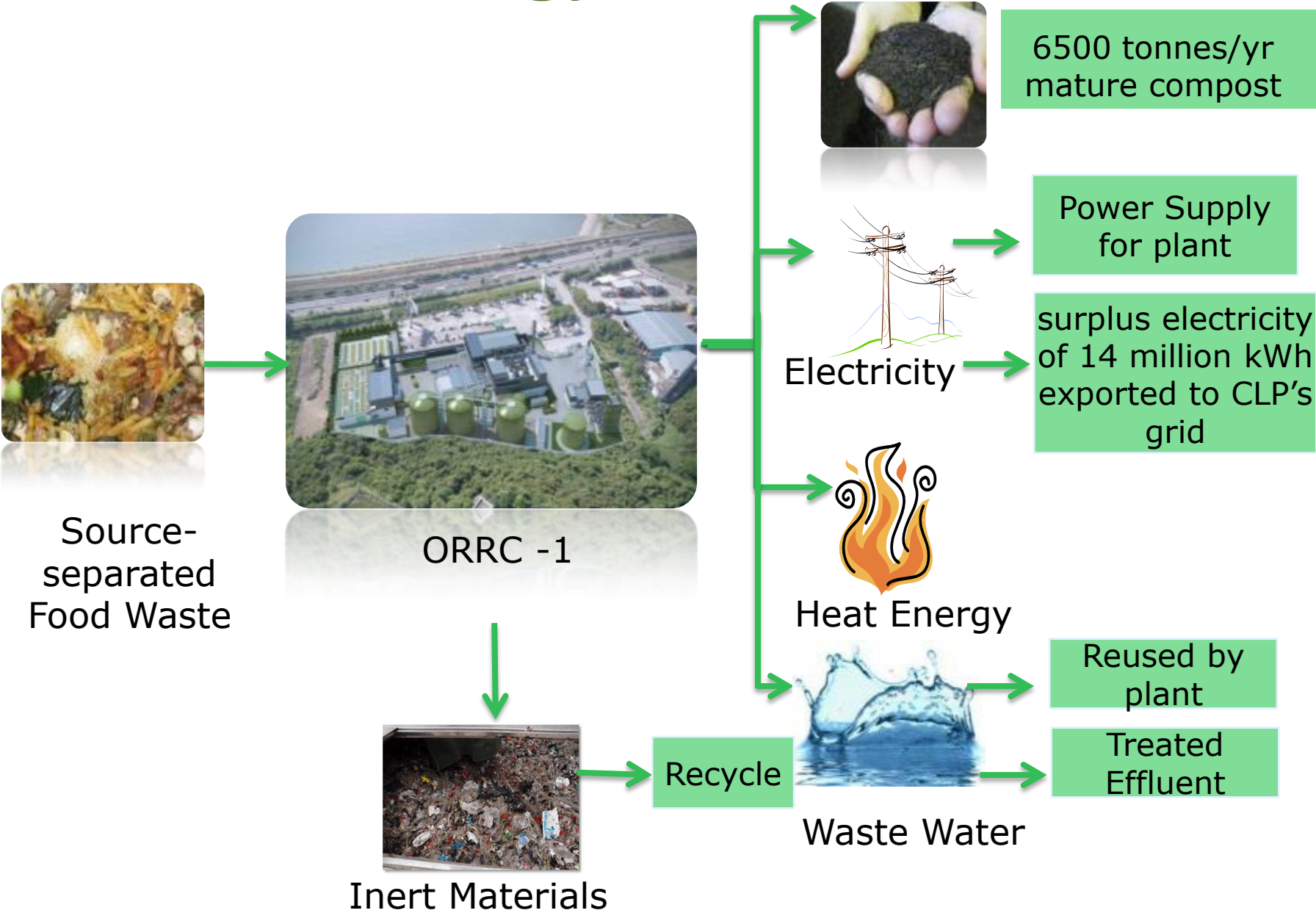
- Capital Investment : \$1.5B
- Operation Cost : \$72M
- DBO Contract with 15 years of operation
- Design Treatment Capacity : 200 tonnes per day (tpd)
- Biogas Production : 43 tpd
- surplus electricity of 14 million kWh = power consumption of 3000 households
- Compost Production : 6,500 tonnes/year

ORRC - 1

HONG KONG 1st



Waste-to-Energy



Aerial view of ORRC-1



Aerial view of ORRC-1



Support from C&I Sectors and Others



Shopping Malls



Wet Markets



Supermarkets



Food Factories



Hotels



Restaurants



Public Institutions

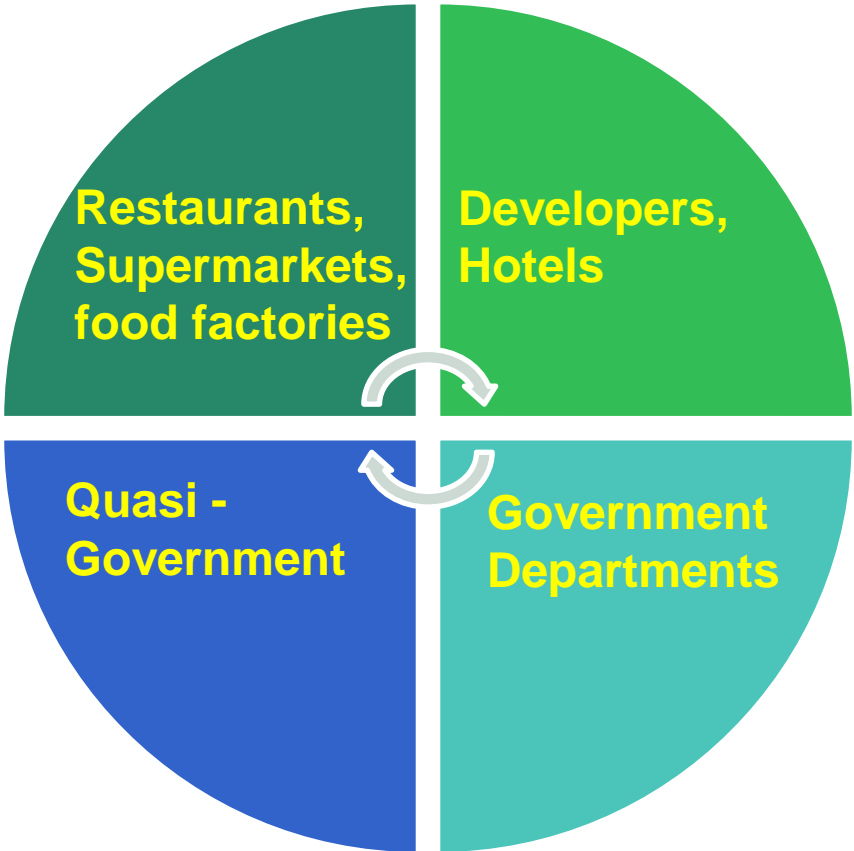


Theme Parks



Universities

Supporting Stakeholders - Various Sectors



Government's Support for C&I Sectors

Provide FREE

Technical Support

Offer FREE

Training

Establish

Code of Practice

Strengthen

Connections



Government Takes the Lead

Implement a pilot project to source separate and deliver food waste from premises under Food and Environmental Hygiene Department and Housing Authority to ORRC-1



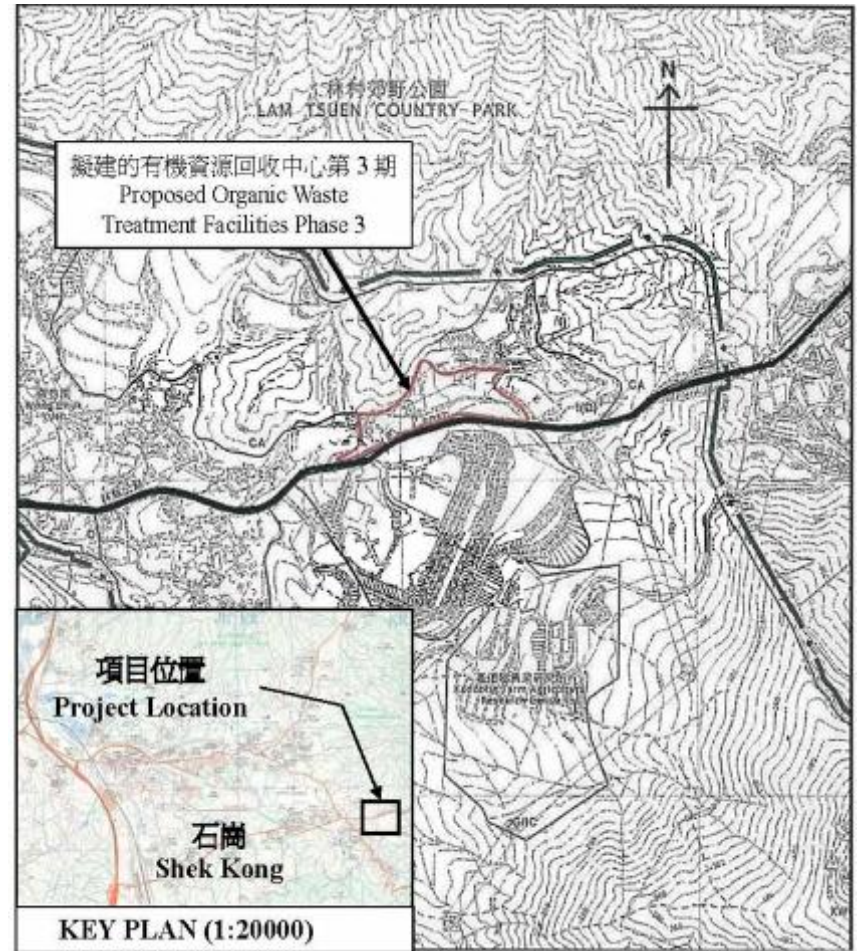
ORRC - 2

- Tendering commenced in Dec 2016
- Subject to funding approval -
- Contract award – second half of 2018
- Commissioning – 2021



ORRC -3

- A site at Shek Kong in Yuen Long has been identified
- treatment capacity of 300 tpd
- Will take forward the Environmental Impact Assessment and Engineering Feasibility Study in 2017



Food Waste/ Sewage Sludge Anaerobic Co-digestion Pilot Scheme



Biogas & electricity for in-plant use

Sludge incineration



Co-digestion with Sewage Sludge at Tai Po Sewage Treatment Works

ORRCs/ Food Waste Recycling Facilities



Food Waste Collection Study

- Draw up practical and effective modes of food waste collection and delivery to future ORRCs having regard to the circumstances in Hong Kong
- Cover different sectors:
 - Domestic households
 - C&I establishments
 - Academic and Government institutions

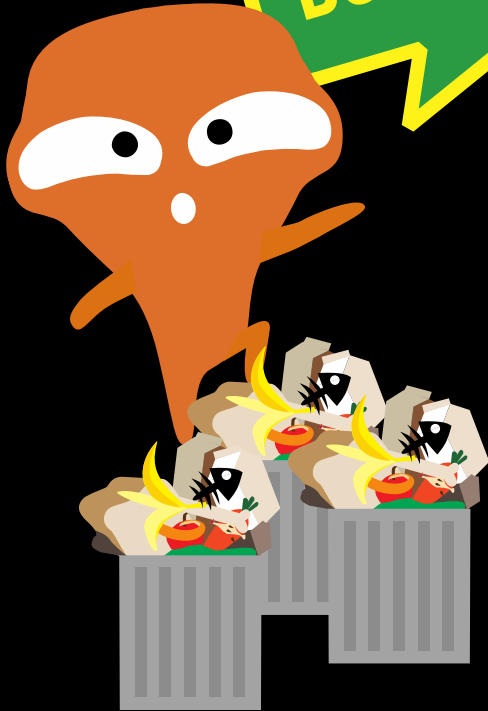


Partnership with HKQAA to raise industry standard



- **\$1 Billion Recycling Fund** was launched in October 2015 to support the local recycling industry
- **HKQAA** granted funding to undertake an project to
 - provide training programmes and develop practice notes on recycling of food waste and other waste types
- - develop and implement a registration scheme to enhance the operation of food waste recycling
- Matching subsidy available for other **food waste collectors and recyclers**

**BE CLIMATE READY,
DON'T BE A BIG WASTER!**



**Thank
You**