



# **Opening Address**

# Overall Workshop Agenda

<b>Time</b>	<b>Programmes</b>
10.05am	Presentation by Singapore Food Agency (SFA)
10.25am	Presentation by Maritime Port Authority (MPA)
10.40am	Presentation by National Parks Board (NParks)
10.55am	Presentation by Urban Redevelopment Authority (URA)
11.00am	Presentation by Building and Construction Authority (BCA)
11.15am	Presentation by Singapore Civil Defence Force (SCDF)
11.30am	Presentation by Police Coast Guard (PCG)
11.55am	Presentation by Singapore Agro-Food Enterprises Federation Ltd (SAFEF)
12.05pm	Q&A
12.45pm	Lunch & networking

# Workshop Etiquette

1. Participants kindly hold your question and we will address them during the Q&A session after we conclude all presentations.
2. During Q & A, please raise your hands and we will bring the microphone to you. Please stand up and introduce yourself (i.e. Your Name and Company) and which agency would you like to direct the question to, if applicable.



# **Develop a Sea-Based Farm in Singapore**

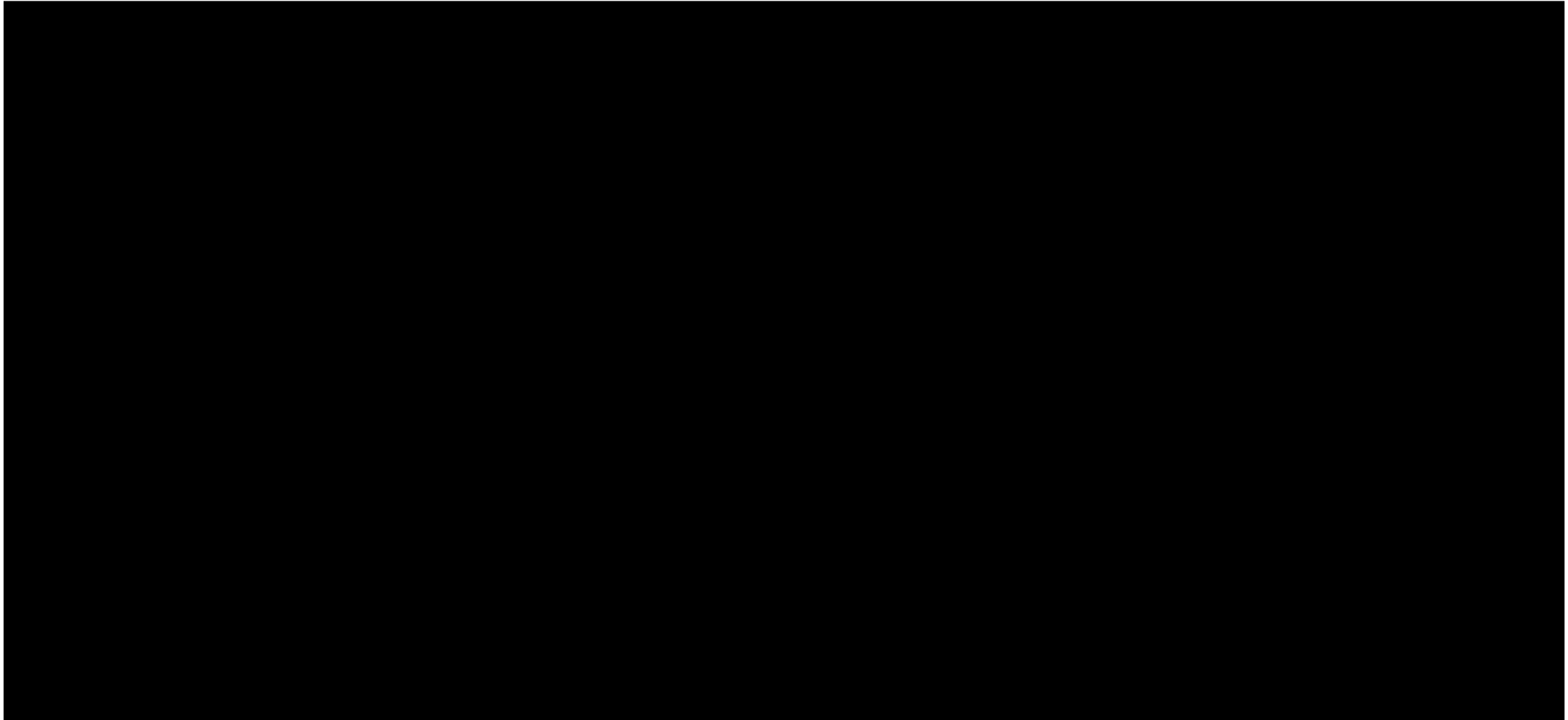
# Overview

- A. Re-Introducing Farms to Singapore
  - 1. Why do we need to “Grow Local”?
  - 2. What constitute “Grow Local”?
- B. Regulatory Requirements in setting up Farms in Singapore
  - 1. The Roadmap
  - 2. Key Regulatory Requirements
  - 3. Development Framework
- C. Tendering for a Farm Site
- D. Agri-food Cluster Transformation (ACT) Fund
- E. Common Issues Faced by Some of Our Farmers and how to Overcome Them

A. Re-Introducing Farms to Singapore



## Why do we need to “Grow Local”?



## What constitutes “Grow Local”?

- To build our agri-food industry’s capability and capacity to produce 30% of our nutritional needs locally and sustainably by 2030
- As land and sea spaces are scarce, and there are many competing needs and parallel developments, emerging technologies allows the development of highly-productive and sustainable farms
- The targeted produce:

### **Vegetables**

(leafy veg, fruited veg,  
mushrooms,  
beansprouts)

### **Seafood**

(fin fish, crustaceans)

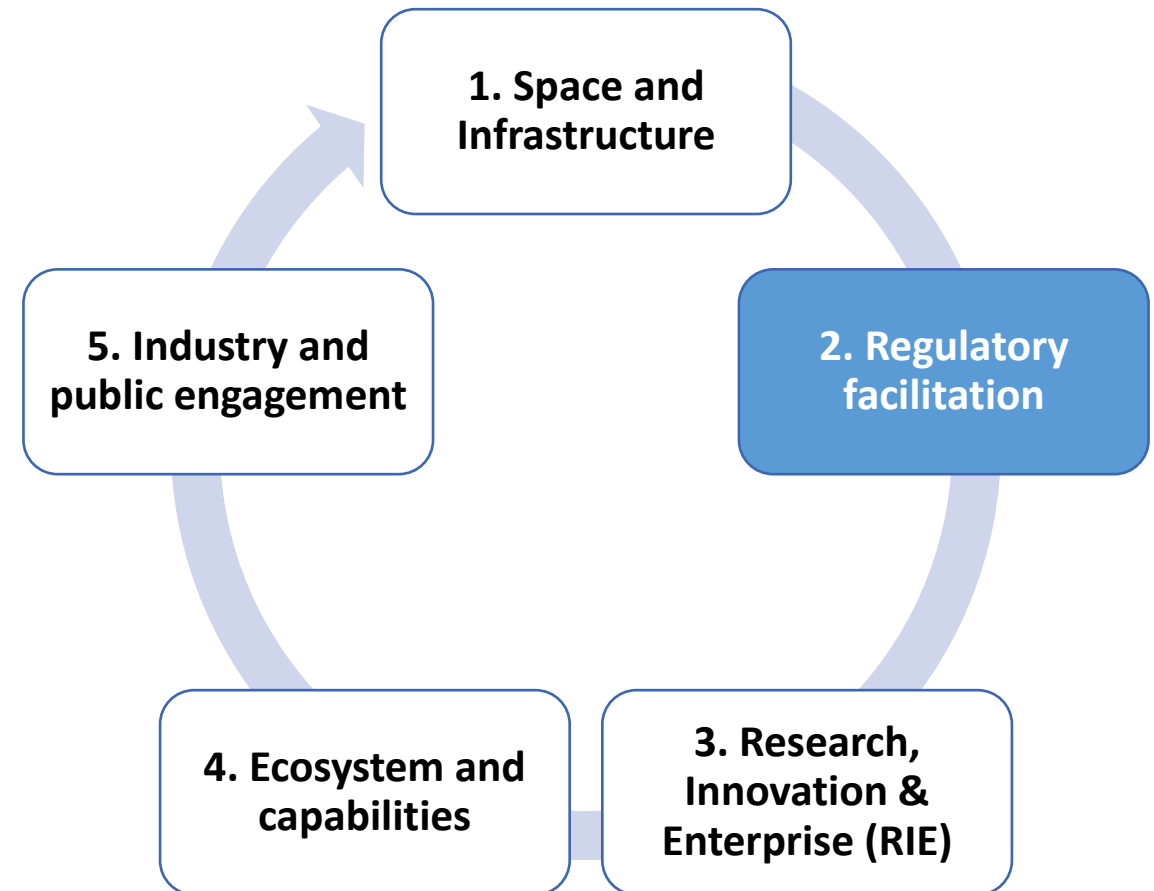
### **Other proteins**

(hen eggs)

## A. Re-Introducing Farms to Singapore

# What constitutes “Grow Local”?

- 5 strategies to guide and transform the agri-food sector towards the ‘30 by 30’ vision, and support the growth of farms in Singapore.
- These strategies show how each stakeholder (farms, agencies, research scientists, offtakers, etc.) plays an important role in realising our ‘30 by 30’ vision





# The Roadmap

- To guide a nascent industry, a “whole-of-government approach” is taken for Pillar 2 (Regulatory Facilitation).

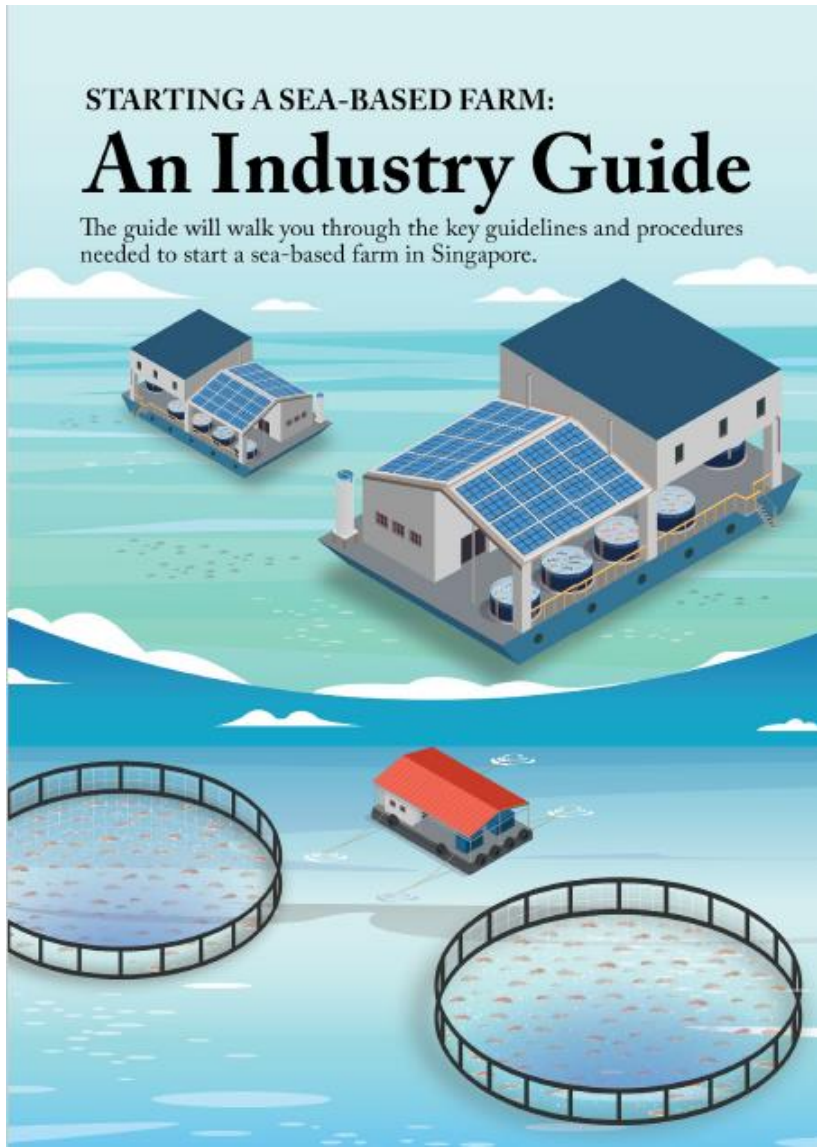


SFA is the national authority entrusted with the mission to ensure and secure a resilient supply of safe food from farm-to-fork for Singapore.

Regulations Workgroup (RWG), co-chaired by SFA and Enterprise SG, are represented by members from BCA, EDB, IRAS, JTC, LTA, MPA, NEA, NParks, PUB, SCDF, SLA & URA:

- Work with agencies in reviewing policies/regulations to assist farm development.
- Produce industry guides to help farmers and their professional teams to set up farms in SG.

## The Roadmap – Industry Guide



- The **Industry Guide** consolidates key government regulations on setting up a sea farm in Singapore.
- Please note regulations may differ depending on the farm type:
  1. Closed containment system
  2. Deep net-cage (open sea)
  3. Shallow net-cage (sheltered coast)

Scan here for the  
Industry Guide:

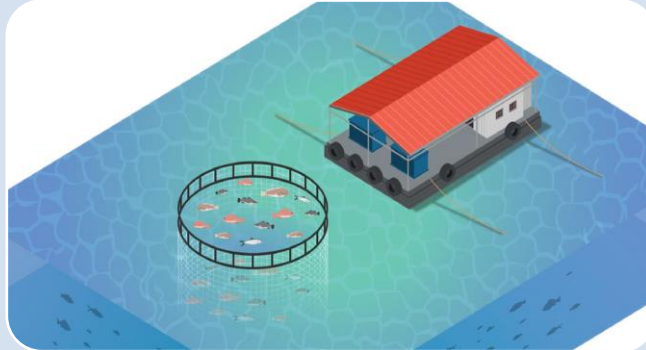


# Types of Sea Farming Systems



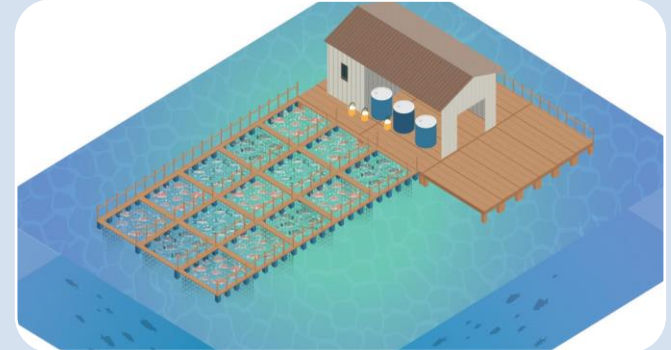
**Closed Containment System**

Controlled culture environment  
Protect farm stocks from adverse water conditions (i.e. harmful algal blooms)  
Higher energy requirements, capital outlay and operational costs



**Deep Net Cage (Open Sea)**

Generally deployed in open seas with water depth >10m  
Much higher production level per unit area  
Higher capital outlay and operational costs

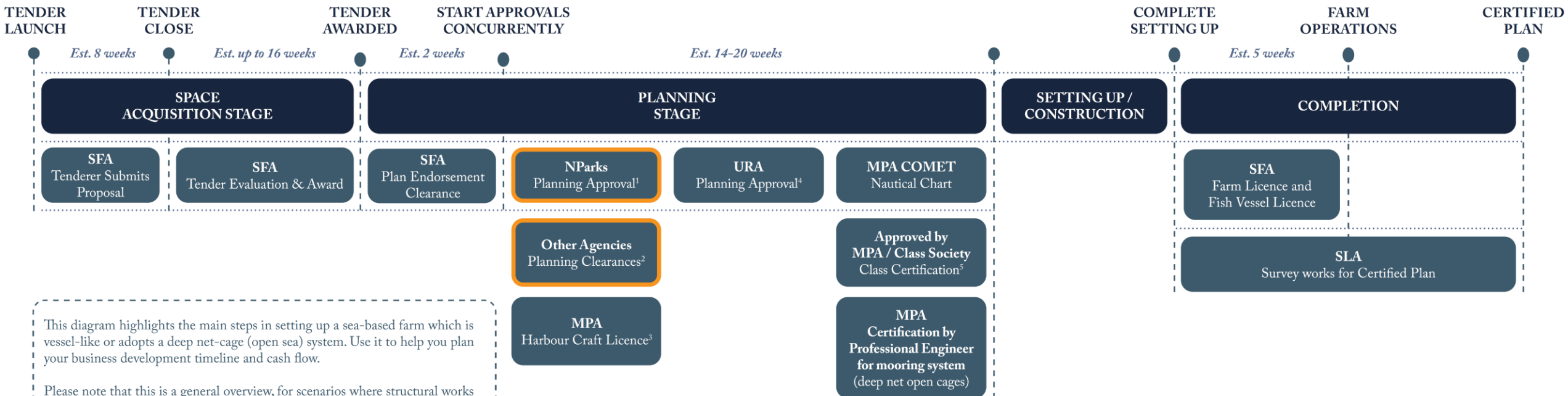


**Shallow Net Cage (Sheltered Coast)**

Generally deployed in relatively sheltered coastal areas  
Nets ~3m deep  
Water quality maintained by tidal flow

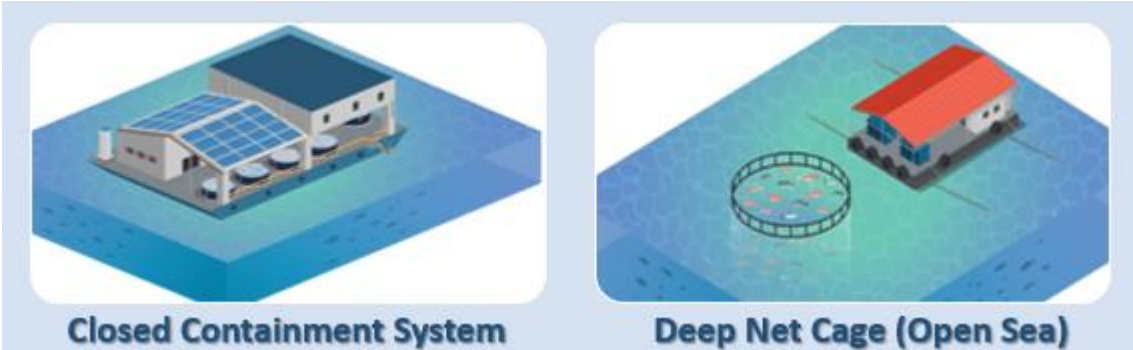
## B. Regulatory Requirements in setting up Farms in Singapore

# Closed Containment System / Deep Net Cage (Open Sea)



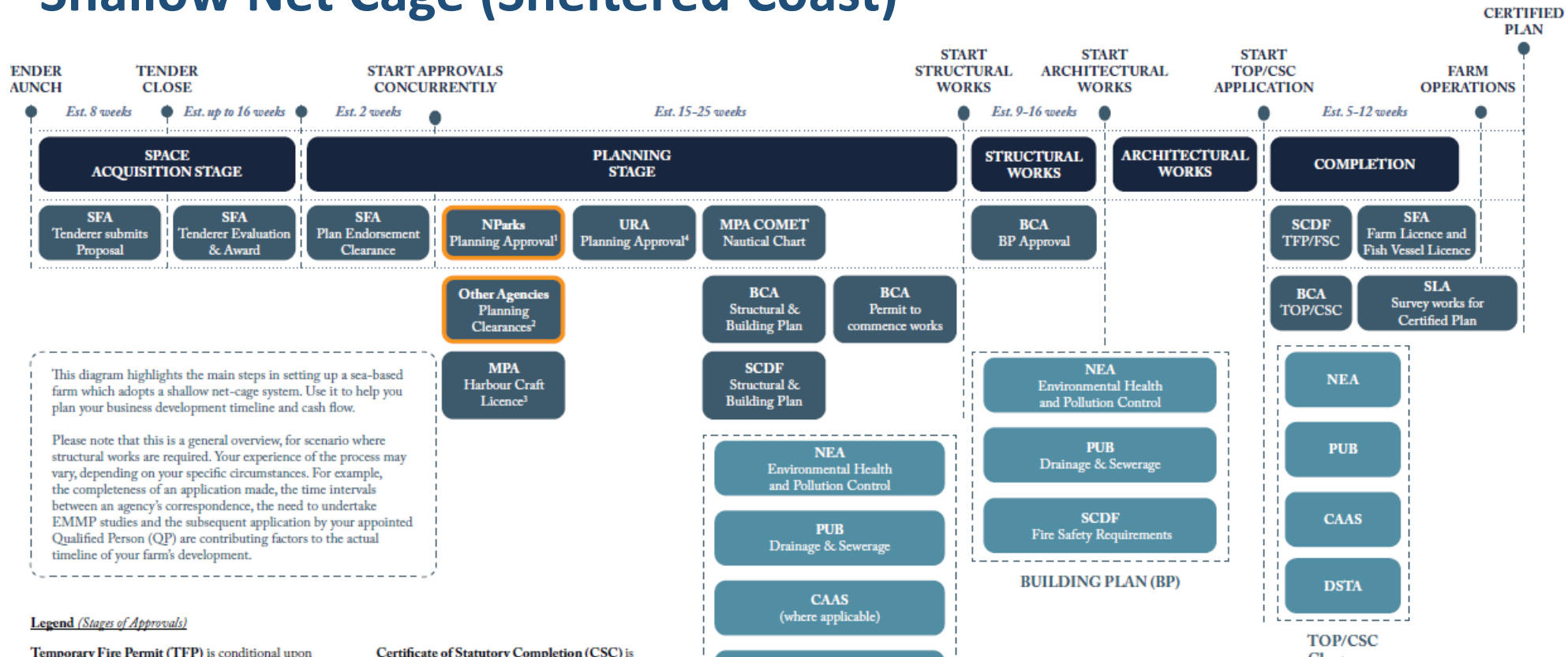
This diagram highlights the main steps in setting up a sea-based farm which is vessel-like or adopts a deep net-cage (open sea) system. Use it to help you plan your business development timeline and cash flow.

Please note that this is a general overview, for scenarios where structural works are required. Your experience of the process may vary, depending on your specific circumstances. For example, the completeness of an application made, the time intervals between an agency's correspondence, the need to undertake EMMP studies and the subsequent application by your appointed Naval Architect are contributing factors to the actual timeline of your farm's development.



## B. Regulatory Requirements in setting up Farms in Singapore

# Shallow Net Cage (Sheltered Coast)



**Temporary Fire Permit (TFP)** is conditional upon fire safety works of a building development being completed with minor outstanding requirements left to be complied with.

**Fire Safety Certificate (FSC)** is required for the use of the premises or occupancy of a building, as it certifies that a building is safe for its occupants. It is issued by SCDF upon ensuring completion of all fire safety works for the building development.

**Mandatory Periodical Structural Inspection (PSI)** by a qualified Professional Engineer to conduct PSI is required once every 5 years. For details, please refer to <https://www.l.bca.gov.sg/regulatory-info/building-control/periodic-structural-inspection>

**Certificate of Statutory Completion (CSC)** is issued by BCA, in conjunction with other agencies, upon ensuring that all building requirements have been fully complied with.

**Temporary Occupation Permit (TOP)** is issued by BCA in conjunction with other agencies' approvals, such as Temporary Fire Permit, to allow occupancy when all building requirements have been satisfactorily complied with.

**Building Plan (BP)** is guided by BCA, in conjunction with other agencies, to ensure the structural safety and usability of the premises.



## Securing Sea Space for Farming

- Before any development project on sea is allowed to proceed, **Environmental Impact Assessments (EIAs)** are required to ensure proposed activities are environmentally sustainable and minimal negative impact to the environment and biodiversity.
- Successful Tenderers subjected to **Environmental Management and Monitoring Plan (EMMP)** during both construction and operational phases.
- Successful Tenderers are awarded **20+10 leases**. Farms are required to complete development within three years of lease commencement and achieve the declared production output within five years of Lease commencement.
- Tender mode would be **Concept and Price tender** with the below tender evaluation criteria:
  - Track record (20%)
  - Production capability (60%)
  - Business sustainability (20%)

## SFA's Requirements

- Upon securing sea space, engage a **Naval Architect** (closed-containment farm system) or a **Qualified Person** (net-cage farm type) to submit a **farm plan** to SFA for endorsement via email to SFA Landsales (SFA) [Landsales@sfa.gov.sg](mailto:Landsales@sfa.gov.sg).
- Farm required to obtain relevant **agency clearances**, including TOP/CSC or Class Certification for the whole of the Development, and a farm licence, in accordance with Fisheries Act before start of any commercial farming activity.
- To optimize limited sea space allocated solely for sea-based farming, **only farming activities are permitted**. Farms not allowed to host non-farming activities (i.e. commercial tours and fishing trips).
- Farm required to obtain a licence (<https://www.sfa.gov.sg/food-manufacturers/setting-up-food-establishments>) from SFA for further processing activities (i.e. processing of seafood products) and comply with the Wholesome Meat and Fish Act, Sale of Food Act and the licensing conditions, before such activities are carried out.

## Obtain a Fish Culture Farm Licence

- Upon farm **plan endorsement**, SFA to inform applicants within 5 working days to submit a farming proposal.
- SFA to issue an **In-Principle Approval (IPA)** within 2 months from the submission of a complete farming proposal.
- Applicants to apply for a **pre-licensing inspection** (within 10 months from the IPA), and submit the following supporting document:
  - Updated ACRA business profile, licensing information, layout plan, process flows, farming proposal
  - Agencies\* approval
- Issuance of the **Fish Culture Farm Licence**, for successful application.

\*Refer ([SFA | Starting a Sea-based Fish Culture Farm](#)) for more information on farm licence application



# Agri-food Cluster Transformation (ACT) Fund

(Available from 30 April 2021 to 31 December 2025 for local farms)

The **Agri-food Cluster Transformation (ACT) Fund** supports the transformation of the agri-food sector into one that is highly productive, climate-resilient and resource-efficient. The ACT Fund comprises three co-funding components:

Funding Component	Funding Description	Funding Quantum
<b>Capability Upgrading (CU) component</b>	Supports farms on purchase of equipment and systems from SFA's pre-qualified list, conduct small-scale pilot trials to raise productivity and resource-efficiency, and reduce pollution and waste.	Co-funding at <b>70%</b> up to <b>\$100,000</b>
<b>Innovation &amp; Test-bedding (I&amp;T) component</b>	<p><b>'Innovation' component</b> - Supports farms' investment in Proof-of-Value project or develop innovative farming technology / systems that directly improve farms' productivity, sustainability and circularity of resource use, within an implementation window of up to two years.</p> <p><b>'Test-bedding' component</b> – Supports farms' investments in piloting or adapting farming technology / system that may have worked in other countries but have yet to be proven in Singapore's context, environmental or weather conditions, to increase farm productivity in a resource-efficient manner with minimal pollution and waste.</p>	<p><u>'Innovation' Projects</u> Co-funding at <b>70%</b> up to <b>\$1mil cap</b></p> <p><u>'Test-bedding' Projects</u> Co-funding at <b>70%</b> up to <b>\$700,000 cap</b></p>
<b>Technology Upscaling (TU) component</b>	<p>Supports the purchase of large commercial-scale, automated, and advanced farming technology solutions<sup>[1]</sup> that will be integrated with agri-input production, post-harvest and waste treatment technology to achieve higher levels of productivity in a resource-efficient manner with minimal pollution and waste.</p> <p>Farms that are setting up new farm sites or retrofitting indoor spaces within ready industrial spaces for farming can also tap on the fund for a one-off support to defray infrastructure and building costs that will be incurred to install the farming technology and system funded under this scheme.</p>	<p>Co-funding at <b>70%</b> up to <b>\$6mil cap</b></p> <ul style="list-style-type: none"> <li>- Up to <b>\$4.5mil</b> for farming technologies</li> <li>- An additional one-off co-funding of up to <b>\$1.5mil</b> for infra-capital costs</li> </ul>

<sup>[1]</sup> Benchmarked to local and global best-in-class productivity.

# Common Issues faced by Farmers and some means to overcome them

# Common Issues faced by Farmers

- Planning, Design and Construction phase
  - Did not consider for **agencies' requirements**
  - Did not consider **utilities** and other logistic plans
  - Lack of **funding**, materials or manpower
  - **Investor** withdraw after tender award, or no seeding of fund to continue with next phase/plot of development
  - Bid for **multiple plots** and unable to complete development for all plots by deadline
  - **Inexperienced QP** which resulted in delay, construction not meeting Agencies requirement
  - **Non-credited vendor**
- Operational phase
  - Not able to **offtake** produce and waste
  - Not able to sustain business viability

# Tips before Starting a Farm in Singapore



- Planning, Design and Construction phase
  - Read [industry guide](#) to find out more about setting up farm in Singapore.
  - Read the **tender documents** thoroughly once tender is launched.
  - Engage a **professional team** with proven track record and knowledge of Singapore's regulations including Qualified Person, Naval Architect, Quantity Surveyor, M&E, C&S engineers, consultants and contractors to do a feasibility study for **both construction and operational phases including sales plan and waste management plan (including sourcing of vendors & suppliers)** before submission of tender proposal, to ensure you are able to perform the contractual terms.
  - Consider whether you have the **financial resources** to complete multiple plots within the same period of time.

# Tips before Starting a Farm in Singapore



- Operational phase
  - **Property tax:** to note that fixed properties like stationary/bolted farming machinery or systems will be factored into annual value of the farmland after installations of the farm are completed.
  - ST will be required to hold more than **50%** of shares of the farm, until SFA's prior written approval is obtained for any changes to this.
  - Be updated on **agri-waste disposal** option for Singapore, which can be a major operating costs. Consideration for reduce, re-use or recycle of wastes.
  - Consider **major component** of operational costs (i.e. utilities cost) during planning to make sure the business is viable.
  - Ensure you have quality source of fingerlings or self-sufficient in fingerlings production.

**Thank you**