



WEBINAR

Agrifood opportunities and trends in Southeast Asia and Singapore

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 10:00am (FR Time) / 4:00pm (SG Time)



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ROQUETTE

**TEAM
FRANCE**
— EXPORT —



**French Chamber
Singapore**

EDB:
SINGAPORE



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Offering the best of nature™



French Chamber
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FCCS: Connecting French & Singaporean Ecosystems

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The FCCS: a platform for companies serving other companies



Strong worldwide network of 127 French Chambers (CCIFI) in 92 countries with over 33,000 companies



Our mission

- Established in 1979
- Self-financed by our members (membership) and through various services that we provide
- 26 employees

Business association

- Support **growth & development**
- **Support set-up** and propel of French businesses in Singapore

- Provide a platform for **sharing information and expertise and business networking** for the Franco Singaporean community
- Business Services

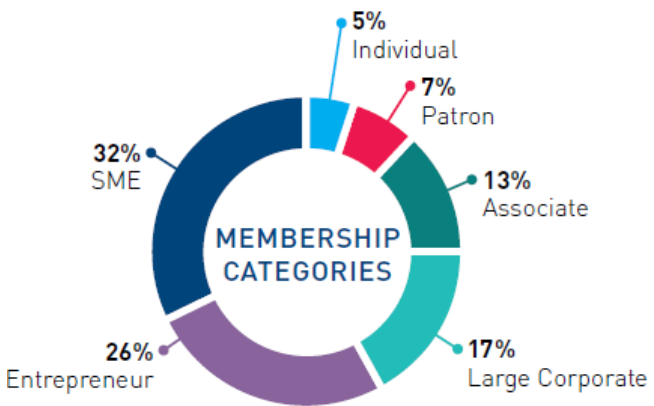
Our scope of activities

Our vibrant Business Community

602 company and individual members

A total of 5,900 contacts

Membership Categories



225+ events/year

7,000+ attendees

34%
Committee Meetings

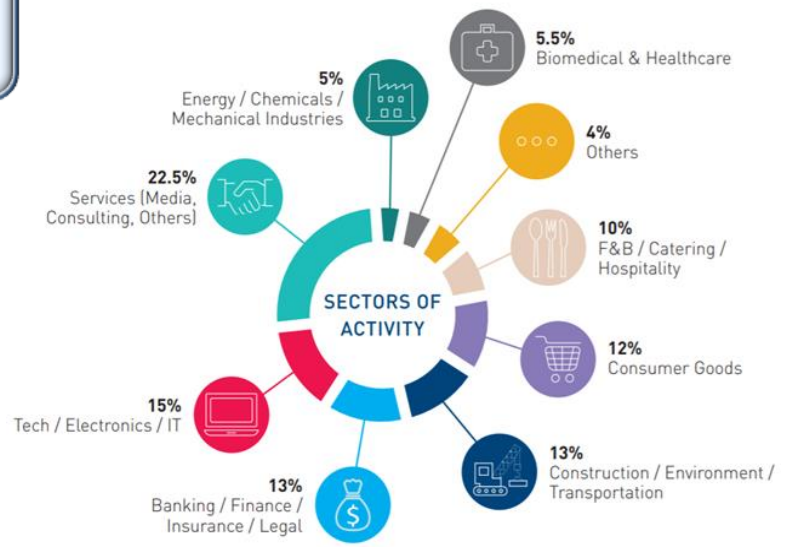


13%
Networking Events



4%
Special/Large-scale Events

Members by business sectors



14%
Trainings



And more!



75+

companies supported
in their business
development in Singapore



15+

companies exhibiting
under French Pavilions



18

company set-ups



133

work permits and
visas processed



102

recruitment missions



800+

candidates interviewed



500+

one-to-one physical
and digital business
information meetings

Business Services

We help you succeed in Singapore



Business network

600+ FCCS members



Creating long-term

business connections



Finding the perfect match

80-100 French companies
supported yearly in their
development



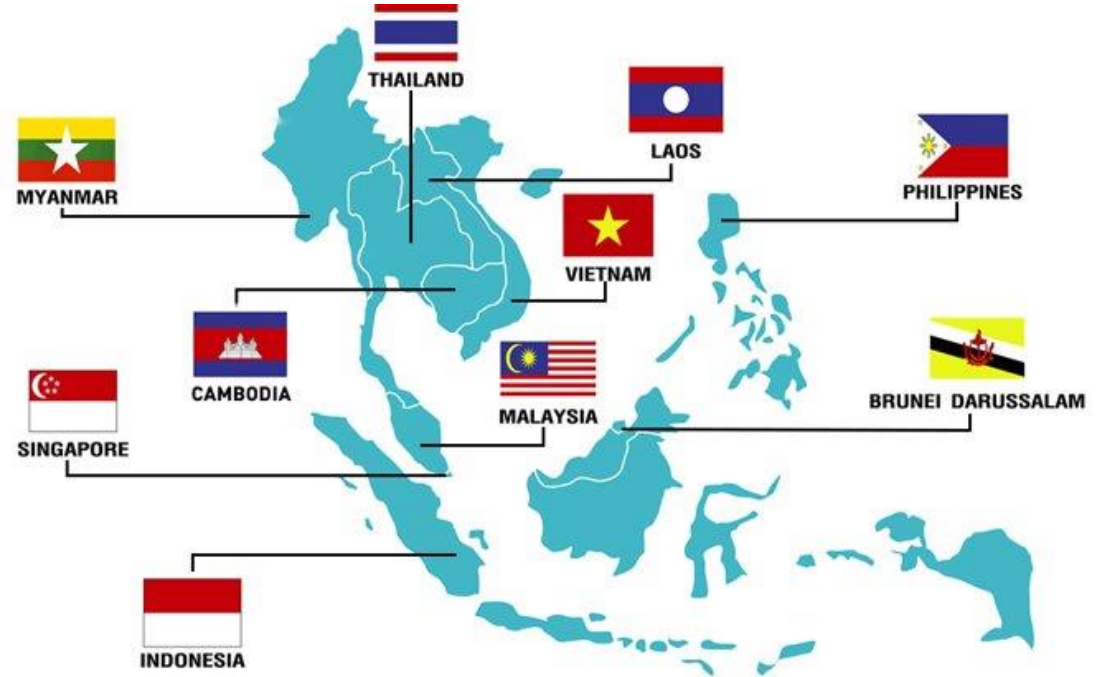
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The Agri-Food Industry in ASEAN

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ASEAN: 3rd most dynamic region in the world

- 10 territories with different development stages
- Southeast Asia is a world heavyweight: **650 millions inhabitants and 5th eco-block with 7%-8% world trade**
- Nearly **6% of Global GDP**
- Ease of Doing Business: very variable degrees of maturity



Global issues & trends in ASEAN



Rapid urbanisation



Growth of the consuming class



Ageing population



Healthy eating



Premiumisation



Low availability of arable land



- Produce more (increase the yields)
- Produce better (*MOU between FR/SG to enhance cooperation on food safety*)
- Produce richer and more diversified (nutritional intakes)
- Transport faster and in better conditions (traceability)
- Limit the impacts of agricultural production

Stakes & Trends



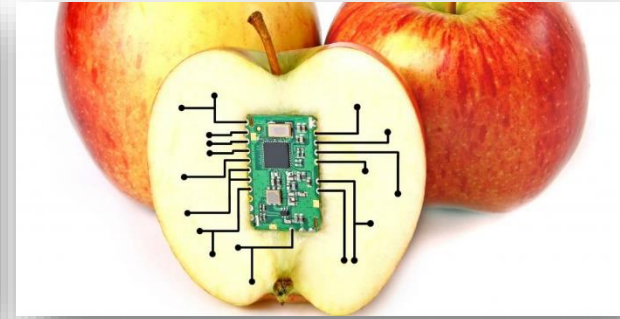
Agricultural production

- Computerization of farms, production management software
- Automation / robotization
- Digitalization of production (drones, satellites, AI, etc.)
- Blockchain (security, traceability)



Mass consumption

- Optimization of transformation processes
- Quality adaptation (aging, modern diseases)
- Cost control
- Logistics optimization / security, meal delivery
- Fight against waste
- Limitation of packaging
- Consumer experience (online / offline)



How about tomorrow?

- Genetic engineering (climate resilience)
- Food alternatives (insects, algae, etc.)
- Urban agriculture (indoor, vertical)
- Funding / Investments



Thank You

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Agri-Food: Opportunities in Singapore



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The Singapore Economic Development Board (EDB)

What we do

EDB is Singapore's lead agency that plans and executes economic and industrial development strategies for Singapore

OUR VISION

- A global leader
- A great city
- A home in Asia
- For business, innovation, and talent

OUR MISSION

We create for Singapore, sustainable economic growth with vibrant business and good job opportunities



Responsible for >30% of Singapore's annual GDP

EDB undertakes **investment promotion** and **industry development** in the manufacturing and tradeable services sectors.

- Facilitate investments
- Partner existing base to transform and boost productivity
- Support corporate entrepreneurship and growth of new ventures



Singapore's Vision: A Global Agri-Food Hub

Can we meet our world's future food demand in 2050?

We need to increase food production by 70% to feed 10 billion people by 2050



Increasingly scarce resources

e.g. Polluted farmlands



Higher risk of supply shocks

e.g. Avian bird flu crisis in Asia



Changing consumer preferences

Increasing importance of value-based purchasing (e.g. sustainability)

Are there alternative solutions for us to meet our future generations' food demands?

Closer to home in Singapore

Singapore's 30x30: Ambition from an urban city in Asia to enhance its food resilience

OUR SINGAPORE FOOD STORY

Singapore imports over 90% of our food. This makes our nation highly vulnerable to impacts brought about by climate changes, disease outbreaks and global food situations which may affect the availability of food in Singapore.

To strengthen our food security and ensure a secure supply of safe food for all, the Singapore Food Agency (SFA) is working towards growing our three 'food baskets'.

1. Diversify Import Sources

Importing food from many different countries reduces the risk of reliance on any single supply source. To date, Singapore has diversified our food sources to over 170 countries/regions.

2. Grow Local

Local produce serves as a critical buffer during supply disruptions. SFA aims to develop the capability and capacity of the local agri-food industry to produce **30% of our nutritional needs by 2030**.

3. Grow Overseas

Singapore supports local companies to expand and grow overseas so that their produce can be exported back home.

Did you know?

In 2019, Singapore farms produced the following:

26%
of local
consumption

528 million
Eggs

14%
of local
consumption

12,684 tonnes
of Leafy Vegetables

10%
of local
consumption

4,693 tonnes
of Fish

(Source: Data collected from Farms by SFA)

Agri-Food Technologies as Alternatives

Can Singapore be a global hub for developing and commercializing Agri-Food solutions that can sustainably feed Singapore and the world?



Urban Agriculture

US\$25B market by 2026,
9.4% CAGR

Uses robotics, LED lighting, and data analytics to grow leafy greens indoors using **95% less water and with 100X more yield** on the same footprint of land that traditional farming requires.



Aquaculture

US\$378B market by 2027,
5.8% CAGR

Most efficient way of producing protein today, **requiring ~1kg of feed per each kg of protein harvested**; compared to nearly 7kg of feed per pound of beef produced.



Alternative Proteins

US\$290B market by 2035,
14% CAGR

Impossible Burger® uses **87% less water, 96% less land, and produces 89% less GHG emissions and 92% less aquatic pollutants** across its environmental life cycle.



Strong Foundations & Early Successes

An emerging Farm-to-Fork ecosystem in the heart of Asia



World's #8 exporter of chemicals

- Evonik's S\$768M Methionine campus
- Seeds genotyping lab (Bayer, Syngenta)
- Crop Protection:
 - Formulation lab (Corteva, Syngenta)
 - Manufacturing (BASF, FMC, Syngenta)

Growing Cluster of High-Tech Farms

- Home to >20 vertical farms today
- Producing <10% of Singapore's local consumption needs

World's #2 Agri-Commodities Trading Hub

- Capturing 20% of world's agri-commodity trade flows
- Olam Digital Innovation Centre

Gateway to Asian markets for CPG firms

- High value manufacturing of concentrates and infant nutrition
- R&D hub for 4 of world's Top 5 Food & Nutrition companies and all top 5 Flavours & Fragrance and Ingredient companies

Recent Agri-Food Investments



Buhler-Givaudan
Plant-based
Protein Innovation Centre
(13 Feb 2020)



Eat JUST
Protein Production
Facility
(20 Oct 2020)



Perfect Day
Microflora Protein R&D Lab
(22 Dec 2020)



ADM
Plant-based Lab
(23 Apr 2021)



Adisseo
Aquaculture R&D
Station
(17 Dec 2019)



Next Gen Foods
Global HQ
(1 Oct 2020)



&ever
Global R&D Centre
(25 Nov 2020)



Oatly
Animal-free Milk
Manufacturing Plant
(29 Mar 2021)



Firmenich
SmartProteins®
Innovation Hub
(3 May 2021)



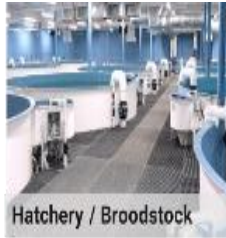
Accelerating the Growth of the Sector

National Initiatives to Accelerate Industry Development

Agri-Food Innovation Park



Insect Farming / Novel Feed



Hatchery / Broodstock



Indoor Vertical Farming



Aqua Nutrition & Health

- Reference site for high-tech farming operations to demonstrate technologies at scale, and explore cross value chain synergies.
- 18 ha of land in development.

Singapore Food Story R&D Programme

I. Sustainable Urban Food Production



II. Future Foods: Advanced Biotech-based Protein Production



III. Food Safety Science & Innovation



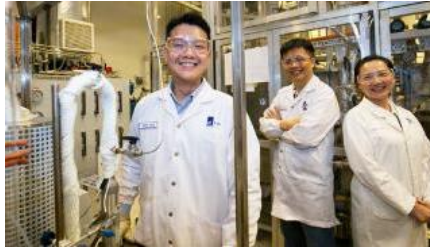
- S\$144 million R&D programme funded under Research, Innovation and Enterprise (RIE) 2020 budget.

Other Enablers

Venture Ecosystem



Public R&D Capabilities



Innovation Infrastructure



Distribution Partner



- World-class accelerators, venture funds and intermediaries, alongside corporates
- Partnership opportunities for corporate innovation and technology sensing efforts
- Dedicated research institutes, such as Singapore Institute for Food and Biotechnology Innovation (SIFBI), Clinical Nutrition Research Institute (CNRC)
- Aquaculture Innovation Centre, and Marine Aquaculture Centre
- Partnership with TLL under its High Performance Precision Agriculture (HiPPA) programme
- Shared innovation for shared innovation equipment and space, such as:
 - A*-Temasek Food Tech Innovation Centre
 - FoodPlant @ Singapore Institute of Technology
 - Buhler-Givaudan Protein Innovation Centre
- Partnership with SATS to develop a one-stop distribution platform for alternative proteins companies to access markets in Asia.



How Can EDB Help

Digital Resources



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Thank You

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EDB Newsletter



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AGRIFOOD OPPORTUNITIES AND TRENDS PLANT PROTEIN | SINGAPORE |



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OUR BELIEF

Nature has the answer to provide people with the food, nutrition and health they need according to their lifestyle choices, their age, where they live and what they do.

OUR VALUES

Authenticity
Excellence
Well-being
Forward-looking



OUR RAW MATERIALS

Corn
Wheat
Potato
Pea
Cellulose

€**3.5bn**
turnover

8,360
employees

25
industrial sites

100+
countries served by a global
commercial network

ROQUETTE & PROTEINS

More than **40 years' experience** in researching and producing **plant protein**



One of the **pioneers** in plant **protein specialties** for **Food, Nutrition & Health markets**



WE BENEFIT FROM A STRONG PLANT PROTEIN POSITION

Today: 15 years expertise in pea processing
90 patents*
4 botanical origins

Vic-sur-Aisne



Portage la Prairie



Hörst



Raw material
management



Protein offer



Service



to ensure a **secure, safe and sustainable plant protein supply**

AGENDA

1. Plant protein market in Asia
2. Plant protein hub: Singapore



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Reasons to buy Plant-Based Alternatives (Asia, 2020)

In Favor

- Healthier (69%)
- Brings variety to my diet (47%)
- Better for the environment/planet (43%)
- It tastes better (31%)



"Which claim do you prefer when buying alternatives to meat and/or dairy?"



5 in 10 respondents in APAC* chose "plant based"

"How have you made changes to your diet in the past 12 months?*"

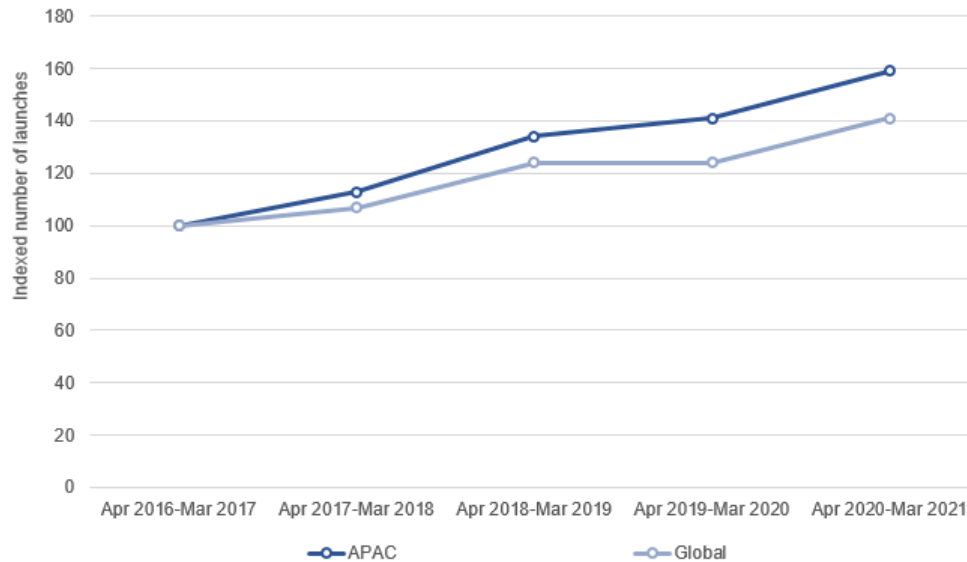
High protein
20%

Plant based
13%

Source: Innova Trends Survey 2020, Innova Health & Nutrition Survey 2020 (*average of China, India, Indonesia)

PLANT PROTEIN MARKET IN ASIA PACIFIC

Index number of new launches tracked with plant proteins (Index: Apr 2016-Mar 2021 = 100)



% CAGR Apr 2016-Mar 2020

APAC

+12.3%

Global

+9.0%

Source: Innova Database

- **Protein deficit** by 2050 with population of ~10bn
- **Global explosion** of plant-based product offerings
- Asia is the **second most active region** for products containing plant proteins (23% of the global total between Apr 2016 and Mar 2021)
- The **growth rate for APAC was +3.3% higher** than the global growth
- **Singapore – alternative protein hub**

COUNTRIES SETTING UP PLANT PROTEIN ECOSYSTEMS



PLANT PROTEIN STRATEGY (2020~)



NATIONAL PROTEIN STRATEGY (2020~)



PROTEIN INDUSTRIES CANADA SUPERCLUSTER
(2018~)



30 BY 30 FOOD SECURITY (2020~)



MNC SME STARTUP





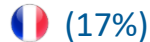
- Cohesive ecosystem:
 - R&D centers
 - Technical centers, Incubators, Investors, Startups



Investment in alt proteins:
x6 in 2020 vs 2019



• Consumers: high proportion of flexitarians (39%)



(17%)

• Food service: high proportion of eating out (55% weekly)



(9% weekly)



Singapore is well positioned to be the food tech capital of Asia

FROM FIELD TO TABLE – ROQUETTE'S JOURNEY



Field

Protein

Table



Seed improvement



Collaborative R&D projects



Sustainable Agri-Chain
Development of Organic Peas



Extraction close to raw material
Dual sourcing close to main markets



Largest range on the market
adapted for different uses :
Isolate, TVP, Hydrolysate



1st pea protein tested in clinical trial



6 Applicative labs



Sensory evaluation



Locally adapted plant based
new cuisine



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Q&A



Thank You

