Singapore Food Manufacturing Scene and Challenges Ahead

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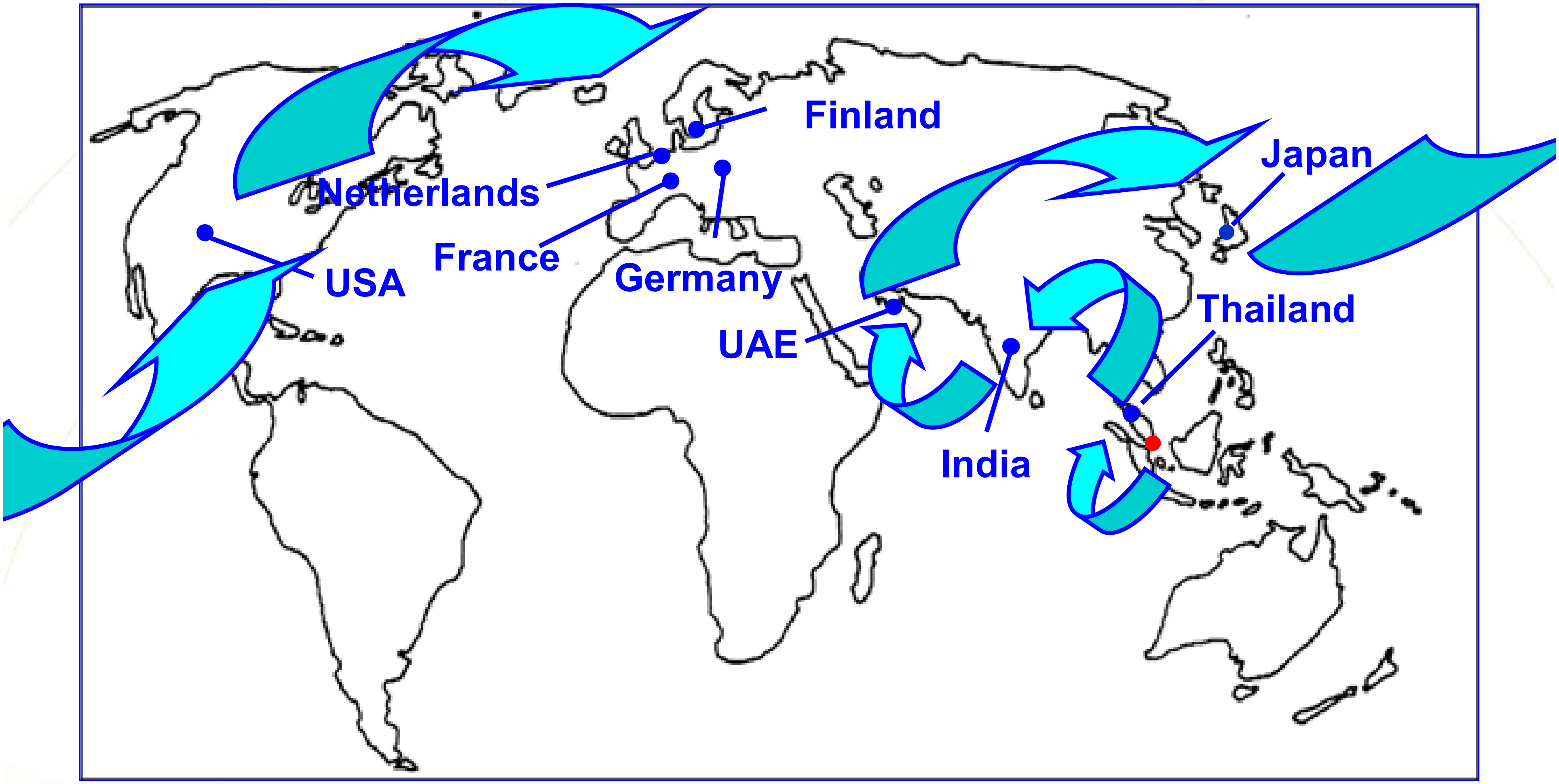
SPRING SINGAPORE

Vision	**Dynamic and innovative Singapore enterprises**
Mission	**To enhance the competitiveness of enterprises for a vibrant Singapore economy**

- One of **strategic thrusts** - Support and drive the **development of key industries**
- **Food Manufacturing** is one of these industries
- Overall vision of Singapore as a **Vital Food Hub;** led by **EDB**
- **SPRING** supports this vision by **championing SMEs** in the food manufacturing industry

OUR ITINERARY



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Source: *http://wps.ablongman.com*

THAILAND – KITCHEN OF THE WORLD

- **Integrated Identity Approach**
  - Bringing unique values of Thai food and cuisine to the world
- **As Easy As ABC**
  - Wide range of marketable ‘**Ready-To-Eat**’ and ‘**Ready-To-Cook**’ Asian food products
  - Innovative use of **herbs and spices**

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INDIA – THE GROWING MIDDLE CLASS

- **Increasing middle-class**
  - Desires **convenience**
  - Have **disposable income** and are willing to pay
  - Increasingly **sophisticated tastes**
- **Cultural** and **Religious** considerations

> "Much to my mother's chagrin I use **store-bought yogurt**," said Rujuta Jog, 24, a recently married office worker. "And my mother-in-law was upset when she saw that I use **Pillsbury flour** to make rotis."
>
> “Recently, I had a conservative Hindu lady explain to me the specifics of a **risotto** she wants for her son’s wedding, and a traditional Bohri Muslim family requested **Mongolian hot pots**.”
>
> – from “*As Cash Rolls In, India Goes Out to Eat*”, New York Times, April 25, 2005

UAE/DUBAI – SWEETS AND SNACKS

- **Snacks and Sweets** remain popular
  - Large shelf space in supermarkets and hypermarts dedicated to savory snacks and packaged sweets
- Increasing trends in
  - **Organic** products – UAE government has introduced accreditation scheme for organic products similar to EU
  - **Sugar-Free** and **Diabetic** Products, e.g. Lulu Hypermart's 'Egg-less Cake Corner', Diabetic Breads
  - **Energy Drinks,** e.g. aggressive marketing by Red Bull, Power Horse

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JAPAN – DEMANDING AND SOPHISTICATED

- **Seasonal, 'Limited Edition'** Products
  - '*AkiAji*' Beer (lit. Autumn-Flavour)
- **Trendy product categories and ingredients**
  - High antioxidant (polyphenols) chocolate, vinegar drinks, Macrobiotic foods
- Desire for '**Authenticity**'
  - Products made with milk from Hokkaido, or *Koshihikari* rice

JAPAN – DEMANDING AND SOPHISTICATED

- **Innovative, functional and aesthetically pleasing packaging**
  - Food often given as high value gifts
  - Convenience through packaging – ‘Squeeze and Eat’
- **Sophisticated consumers, aware of health claims, advanced functional food market**
  - Most established regulatory system for functional foods - FOSHU (FOods for Specified Health Use) since 1991.

USA – HEALTH CONCERNS, AGEING POPULATION

- **Health Concerns**
  - Nearly 60% of Americans suffer obesity and heart problems, Type 2 diabetes, cancer, elevated cholesterol levels, osteoporosis, arthritis and chronic heartburn.
  - Consumers increasingly aware of the importance of diet and nutrition in their health.
- US is being hit by **“Age Wave”**
  - Overall population aged over 55 yrs continues to grow.
  - By 2010, nearly 25% of the US population will be aged over 55.

Industry responding to consumer concerns – variety of health & wellness products

Organic, Better-for-you, Fortified/Functional Food, Natural Healthy

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USA – INCREASE IN CONVENIENCE AND FEMALE BUYING POWER

- **Changing Lifestyles**
  - Increase in household income
  - Improved awareness due to globalisation
- Demand for **Take-Away Meals / Food Products**
  - Longer Working Hours
  - Greater Mobility
- Growing Spending Power of **Women**
  - More women in workforce
  - Decision maker for purchases

USA – INNOVATIONS @ NRA

- **Fruit Beer**
  - Ingredients include wheat ale, fruit peels, barley, coriander
  - Free from artificial flavours
  - Lightly carbonated
- **Self-Heating Can**
  - Beverage heats up within 7 mins
  - Temperature reaches as high as 130°C
- **Pre-packed Suckling Pig**
  - Ready for consumption upon heating
  - Piglets fed only with herbs
  - Reduce cholesterol oxides by up to 80%

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EUROPE – INNOVATIONS AT THE INTERFACE

- **Agri-Food innovations linked to Life Sciences, Pharmaceuticals, Nanotechnology**
  - Innovations at the interface of these fields
  - Looking at **health and functionality**
  - E.g. Evolus line of blood-pressure reducing dairy drinks
  - E.g. double emulsification process to reduce fat content of mayonnaise

EUROPE – ‘NATURAL’ FOODS

- **Reduction or Elimination of Additives**
  - Shortened ingredient listings, “**no E-numbers**”
  - E.g. increased shelf stability of milk by nano- or micro-scale filtration (Aquamarijn’s micro-sieves)

EUROPE – IT ALL STARTS WITH INGREDIENTS

- **Innovative Functional Ingredients**
  - Active ingredients with proven clinical studies
  - Lactium™ – bio-active peptide with stress management properties (milk, fruit juice, chocolate bar)
  - Benecol® – active plant stanol ester with cholesterol-lowering effect (spreads, beverages, biscuits)

EUROPE – FOCUS ON HEALTH ISSUES

- **Health Issues and Food Innovation**
  - Functional food innovation focused on identified market health issues (hypertension, coronary, allergies etc.)
  - High consumer awareness of labels and claims

GLOBAL FOOD TRENDS

- **Aging World Population**
  - By 2050, 26% of pop. >60 yrs old (from 11.7% in 2005)
  - This segment will more than triple in size from 0.75B in 2005 to 2.4B in 2050
  - Focus on **health and nutritional aspects**, **user-friendliness** of products
  - US$40B global functional foods market in 2005
- Increase in **Urban Populations** creates demand for **convenience** and **sophistication** in products
- **Tighter regulations** in the face of food-borne illnesses, bio-terrorism

Sources:
United Nations World Populations Prospects 2004 Revision
Euromonitor (2006)

GLOBAL FUNCTIONAL FOODS MARKET

Year	Market Value	Growth Rate
1998	US$27.85bn	
1999	US$31.66bn	13.7% (1998 – 1999); 53.5% (1995 - 1999)
2004	US$34.64bn	
2005	US$40bn	13.4% (2004 – 2005)
	*Fortified/functional dairy product account for 50%	
	APAC: US$15bn (37.5%)	
	Japan: US$9bn (22.5%), biggest market, 0.5% growth rate	
	South Korea: US$2.1bn (5.25%), 3% growth rate	
	China: US$0.7bn (1.77%); 20% growth rate	
	Taiwan: US$0.48bn (1.21%), 3% growth rate	
	Indonesia: US$1.1bn (2.75%); 13% growth rate	
	India: US$0.44bn (1.1%)	
2010	US$52.7bn	5.7% p.a. (Global projected, 2005 - 2010); 30% (APAC projected, 2005 - 2010)

Source: *Euromonitor International*

2005 VALUE SALES OF FORTIFIED/FUNCTIONAL FOODS

US$ million	China	Hong Kong, China	India	Indo-nesia	Japan	South Korea	Taiwan	Thailand	Total
Dairy Products	605.9	150.0	346.3	505.4	5,075.9	1,767.8	360.3	186.9	8,998.5
Confectionery	39.9	39.1	28.3	19.1	2,378.5	310.2	87.2	70.3	2,972.6
Noodles	5.0	--	--	580.2	--	38.0	--	15.5	638.7
Bakery Products	30.9	11.9	66.4	--	156.7	255.7	10.8	43.8	576.2
Oils and fats	27.1	2.3	--	--	480.2	--	6.6	4.4	520.6
Snack Bars	--	--	--	--	471.8	4.2	--	1.0	477
Canned/ Preserved Food	--	--	--	--	285.7	--	--	1.1	286.8
Soup	--	--	--	--	16.2	--	22.1	0.5	38.8
Pasta	--	--	--	--	--	--	--	--	--
Total	708.8	203.3	441.0	1,104.6	8,864.9	2,122	487.1	323.5	14,509

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Source: *Euromonitor International*

OPPORTUNITIES AND STRENGTHS

- **Growing Global Demand** for processed food products
  - Growth from **greater value-adding** than larger volume
  - 9 of the 20 fastest growing markets by value in Asia (Singapore at 11th position)
- **Strong Logistics Connectivity** from Singapore to the rest of the world
  - Facilitates obtaining raw materials and delivering finished products
  - Network of **Free Trade Agreements** (FTAs)
- **Trusted Brand Name** of Singapore

Sources:
Euromonitor (2003)
New Directions in Global Food Markers, USDA Agriculture Information Bulletin

SINGAPORE'S FOOD MANUFACTURING INDUSTRY

Establishments

699
(2004)

8% of manufacturing establishments

94.5%

SMEs

Direct Exports

$2.6B

(2005)

Manufacturing Output

$4.6B
(2005p)

2.2% of total manufacturing output

Value Added

$1.21B (2005p)

2.4% of total manufacturing VA

19,534 (2005p) **Workers**

5.3% of total manufacturing workforce

17
major sub-sectors

p: projected

Sources:
Department of Statistics, Singapore
Principal Statistics of Manufacturing by Industry Cluster, EDB
IE Singapore

A GROWING INDUSTRY

	2003	2004	2005p
Establishments	681	699	*(To be released)*
Manufacturing Output	$3.74B	$4.45B	$4.60B
Value-Added	$1.00B	$1.17B	$1.21B
Workers	19,155	19,017	19,534

p: projected

Sources:
2006 Yearbook of Statistics, Singapore
Principle Statistics by Industry, Economic Development Board

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CHALLENGES

- **Fragmented nature** of industry with large proportion of SMEs with limited resources
- Small local market and **price competition** from lower-cost producers
- **Reliance** on imported raw materials
- **Barriers to trade** in food
    - Non-tariff e.g. unnecessarily difficult or complicated documentation or other requirements
    - Tariff e.g. tariff escalation for processed food

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INNOVATE TO STAY AHEAD

- Growth from **Greater Value-Adding**
  - Pure price competition is not sustainable
  - Increase **value and sophistication** of products, e.g. functional foods, lifestyle foods (fine wines, cheese, exotic flavours), convenience foods – ‘eat-on-the-go’
- **Companies need to innovate to stay ahead**
  - Product, Process, Packaging Development
  - Intellectual Property Management
- Support from **Strategic Partners**
  - IHLs, service providers keeping abreast with latest technologies

SPRING SUPPORTS THE FM INDUSTRY

SPRING supports local SMEs' capability development

- Enterprise-Level Programmes
- Industry-Level Programmes
  - LEAD proposal approved for SFMA includes the Food Innovation and Development Centre (FIDC)
- Infrastructure Programmes
  - Food Innovation and Resource Centre (FIRC)

  – a Centre of Innovation (COI) for Food
- General Awareness and Advocacy
  - Networking events
  - Informational seminars

TECHNOLOGY INNOVATION PROGRAMME

Catalyse Technology Innovation Projects

- Promote technology awareness to SMEs in key industries
- Incentivise Technology Innovation projects

Demand Side
- Affordability
- Capability
- Knowledge

Technology Innovation in SMEs

Develop Technology Infrastructure

- Set-up laboratories and Centres of Innovation (COI) for key industry verticals
- Develop database of technology resources

Supply Side
- Emphasis
- Information

Build Technology Innovation Capabilities

- Secondment of experts (local / overseas) to SMEs
- Support IHL student attachments to SMEs
- Set-up technology innovation talent database

Demand Side
- Capability
- Knowledge

Supply Side
- Information

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CAPABILITY DEVELOPMENT SCHEME

- **Projects**
  - Catalyse technology innovation projects in SMEs
  - Incentivise projects at Enterprise, Consortia and Industry-levels
- **Experts**
  - Develop technology innovation capability in SMEs
  - Secondment of experts (local & foreign) from RIs, IHLs, etc. up to 2 years
- **Infrastructure**
  - Set up technology support infrastructure for industries
  - Centres of Innovation

MOVING AHEAD

- The **food industry** in Singapore is **growing**
- Growing global demand for **higher value-added products**
- Food companies need to **innovate to stay ahead**
- **SPRING**, together with other government agencies are here to facilitate

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CONTACT

For product/process development and other assistance, contact SPRING Singapore's Food Division:

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