Innovation and Entrepreneurship Policy Framework: The Malaysian Experience in Building Sustainable Incubation Industry (Movement)

By
Mr Annuar Mohd Saffar

Honorary President
National Incubator Network Association
Malaysia
**BACKGROUND OF SPEAKER**

**… 14 Years in Business of Incubation**

- **Engineer (Plant & Project)** Mar 87-Oct 93
  - National Petroleum Co. (Petronas)

- **Director** Nov 93-Sep 96
  - Taman Teknologi Malaysia,
    - Ministry of Science, Technology & Environment
  - **Government of Malaysia & UNDP Project**
    - “Strengthening Incubation Management in Malaysia”

- **Vice President** Oct 96- Nov 99
  - Technology Park Malaysia Corporation

- **Executive Director & General Manager** Dec 99-Present
  - Kulim Hi-Tech Park Incubator

- **President, National Incubator Network Association (NINA)**
- **Vice President, Asia Association of Business Incubation (AABI)**
TECHNOLOGY PARK IN MALAYSIA

KULIM HI-TECH PARK

TECHNOLOGY PARK MALAYSIA

MULTIMEDIA SUPER CORRIDOR
History and Background

Weaknesses in the Malaysian Incubator Programme

Reforms to Overcome Weaknesses

VC Funds to Assist (Tech) Incubation Companies

Concluding Remarks
### Background

... Malaysia Being Left Behind

<table>
<thead>
<tr>
<th>Country</th>
<th>Nos. of Incubators</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA/Canada</td>
<td>1100+</td>
</tr>
<tr>
<td>China</td>
<td>500+</td>
</tr>
<tr>
<td>South Korea</td>
<td>270+</td>
</tr>
<tr>
<td>Japan</td>
<td>200+</td>
</tr>
<tr>
<td>Taiwan</td>
<td>98+</td>
</tr>
<tr>
<td>India</td>
<td>60+</td>
</tr>
<tr>
<td><strong>Malaysia</strong></td>
<td><strong>72 +</strong></td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>20+</td>
</tr>
<tr>
<td>Indonesia</td>
<td>10+</td>
</tr>
</tbody>
</table>
### Historical Background

**Malaysian Incubation Industry and Major Stakeholders**

<table>
<thead>
<tr>
<th>Period</th>
<th>Major Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988 - 1994</td>
<td>Technology Park Malaysia (TPM)</td>
</tr>
<tr>
<td></td>
<td>• M’sian Tech Dev Corp (MTDC)</td>
</tr>
<tr>
<td></td>
<td>• SIRIM</td>
</tr>
<tr>
<td>1999 - 2004</td>
<td>Multimedia Development Corporation</td>
</tr>
<tr>
<td></td>
<td>• Kulim Hi-Tech Park</td>
</tr>
<tr>
<td>2005 - 2010</td>
<td>NIDP as the nucleus for the nationwide roll-out of the MSC:</td>
</tr>
</tbody>
</table>

#### 1st Generation Model
- **Landlord model**
- Characteristics:
  - Real estate,
  - Shared facilities
  - Reactive support
- **In operation:**
  - 1 (tech) incubator

#### 2nd Generation Model
- **Landlord + consulting/advisory model**
- Characteristics:
  - Real estate,
  - Shared facilities
  - Proactive support
  - Business Advisory Services
- **In operation:**
  - 3 (tech) incubators
  - 30+ incubators overall

#### 3rd Generation Model
- **Facilities + Business Advisory Services and mentoring services**
- Characteristics:
  - Real estate,
  - Shared facilities
  - Proactive support
  - Access to Funding
  - Co-Venturing
  - Mentoring & Coaching
  - Business Acceleration process
  - Technology Labs
  - Focused Technopreneur Development Programs
  - Technology & Business Incubator Development Consulting
  - Incubator Industry Development Consulting

#### NIDP as the nucleus for the nationwide roll-out of the MSC:
- **MSC Status Incubator**
  - Cybercentre
  - Cybercity

#### Incubator Industry Development Target by 2010:
- 100 Incubators Nationwide (currently 55)
- 30 MSC Status Incubators (currently 20)
Weaknesses in Malaysia’s Incubator Programme*

Problem 1. All Incubators were/are funded by Federal Government.

- Lack of Experience on the Part of the Incubator Managers
- Managed by bureaucrats with little knowledge in entrepreneurship.
- Start-ups Getting out of business.

Problem 2. Some Technology Parks (incubators) started as Technology-Based Initiative but ended up being Real Estate Development.

- “Noble” initiative in the beginning.
- Deteriorate to “Tenant- Landlord” Relationship.

3. Technopreneur Development Undertaken by Various Ministries and Agencies.
   - Lack of coordination, implementation procedures and wastage of resources.
   - Tasks are duplicated in various other agencies within different ministries such as MECD, and MDeC within MOSTI.
   - Min of Science, Tech & Innovation – Technology Incubators
   - Min Enterpreneur & Coop Development - General Incubators
   - Min of Agriculture and Agro-based Industries - Agro Incubators

4. Incubators in some states may not have the same facilities as in technology parks in Kuala Lumpur area.
   - No longer true as there are more than 20 technology incubators in the country.
   - Kulim Hi-Tech Park, Perak Tech Park, Iskandar Tech Park, Sarawak Tech Park.

*Jusoh, Sufian.  
Barrister at Law (LLB. Wales), (LLB. London)  
NCCR Research Fellow, World Trade Institute, Bern
5. Technopreneurs suffer from Lack of Funding opportunities
- Banks approach to technopreneurs & their technology.
- Banks do not fund ‘developmental work’
- Entrepreneurs must match loans with personal guarantees or collateral.
- (Private) Venture Companies reluctant to provide seed capital fund.

6. Various Govt Set-up Funds (VC) are not properly disbursed.
- Application processes NOT conducted in transparent manners.
- Difficult bureaucratic measures/grants issued to tech companies which employ ‘know-who’, rather than ‘know how’.
- Grants being issued to non-deserving ‘know who’ individuals.
- Depletion of the amount available to those with the ‘know-how’.

Reforms to Overcome Weaknesses (Problem 1):
… All Incubators were funded by Federal Government.

- Up to 1996/99, **ALL (36)** incubators were federal or state supported incubators.
- Too much dependence on federal government funding (both development and operation budget).
- No private-owned incubator.
- Success stories were lacking/not forthcoming.
Reforms to Overcome Weaknesses (Problem 1):  

… “All Incubators were funded by Federal Government” (cont’d)

**Effort 1 – Corporatizations** of Government Departments and Agencies Related to Research, Technology and Entrepreneur Development.

- e.g Technology Park Malaysia, SIRIM, Kulim Hi-Tech Park, SEDCs, etc.
- Collect own Revenue (previously collection by Accountant-General Office).
- **Staff given Option** to join government or “corporatized entity with better pay and scheme”.
- **Partially supported** by Federal Malaysian Government.
- Receive Launching Budget and Development Budget ONLY, but **NO Operations Budget**.
- Agencies must be creative to generate their sources of revenue.

**Effort 2 – New State Government linked-incubators are Private Limited Companies.**

- e.g Perak Techno-Trade, Melaka ICT Holdings, etc.
Reforms to Overcome Weaknesses (Problem 1): … “All Incubators were funded by Federal Government” (cont’d)

- **Effort 3 – Encourage Establishment of Private Incubators via MSC-Status Incubators**
  
  - **MULTIMEDIA SUPER CORRIDOR - MSC.**
  - MSC – 50km x 15 km Development to Promote Growth of ICT.
  - **Introduction of “MSC-Status Incubators”** to promote growth of more “private-owned” incubators.
  - MSC-Status Incubators receives same incentives as MSC Status-Companies:
    - **NO INCOME TAX** for up to 10 years.
    - or an investment tax allowance, and no duties on import of multimedia equipment.
    - **UNRESTRICTED EMPLOYMENT** of local and foreign knowledge workers.
    - **FREEDOM** of ownership by exempting companies with MSC Status from local ownership requirements.
    - **FREEDOM** to source capital globally for MSC infrastructure, and the right to borrow funds globally.
    - No Internet censorship.
    - Receive competitive telecommunications tariffs.
    - Participation in Tender key MSC infrastructure contracts.
### Status as at 31st Dec 2006

#### Breakdown of Incubators in Malaysia

According to Type & Sponsors

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Incubators</td>
<td>20</td>
</tr>
<tr>
<td>All are MSC Status Incubators/NINA</td>
<td></td>
</tr>
<tr>
<td>Private owned Incubators</td>
<td>= NINE (9)</td>
</tr>
<tr>
<td>State-owned Incubators</td>
<td>14+</td>
</tr>
<tr>
<td>State Econ Devmt Corporations</td>
<td></td>
</tr>
<tr>
<td>MARA Incubators</td>
<td>18 +</td>
</tr>
<tr>
<td>Ministry of Entrepreneur Devmt</td>
<td></td>
</tr>
<tr>
<td>Craft Incubators</td>
<td>6</td>
</tr>
<tr>
<td>Agro-tech Incubators</td>
<td>3</td>
</tr>
<tr>
<td>Others (UUM, UKM, UPM)</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>72 +</td>
</tr>
</tbody>
</table>
Weaknesses in Malaysia’s Incubator Programme (cont’d)

5. Technopreneurs suffer from Lack of Funding opportunities
   - Banks approach to technopreneurs & their technology.
   - Banks do not fund ‘developmental work’
   - Entrepreneurs must match loans with personal guarantees or collateral.
   - (Private) Venture Companies reluctant to provide seed capital fund.

6. Various Govt Set-up Funds (VC) are not properly disbursed.
   - Application processes NOT conducted in transparent manners.
   - Difficult bureaucratic measures/grants issued to tech companies which employ ‘know-who’, rather than ‘know how’.
   - Grants being issued to non-deserving ‘know who’ individuals.
   - Depletion of the amount available to those with the ‘know-how’.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of registered VC funds companies</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Number of registered VCMCs</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>Number of Investee companies</td>
<td>380</td>
<td>461</td>
</tr>
<tr>
<td>Number of VC professionals</td>
<td>156</td>
<td>184</td>
</tr>
<tr>
<td>Shareholding Structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% local ownership</td>
<td>83</td>
<td>87</td>
</tr>
<tr>
<td>Joint Ventures</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Malaysian Venture Capital Development Council
Source of VC Funds (2006: USD 1.0 bil)

... Government is Still the Largest Contributor (40.7%)

- Government, 40.7%
- Corporations, 37.6%
- Foreign, 7.5%
- Banks, 7.3%
- Individuals, 5.0%
- Insurance, 1.2%
- Pensions, 0.7%
## Expenditure and Development Budget for Financial Sector, 2001-2010 (in RM million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Venture Capital</td>
<td>690.0</td>
<td>1,600.0</td>
</tr>
<tr>
<td>SME Development</td>
<td>1,412.2</td>
<td>1,100.0</td>
</tr>
<tr>
<td>Government Equity</td>
<td>4,520.2</td>
<td>1,200.0</td>
</tr>
<tr>
<td>Property Fund</td>
<td>-</td>
<td>2,000.0</td>
</tr>
<tr>
<td>Others</td>
<td>468.0</td>
<td>480.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,090.0</strong></td>
<td><strong>6,380.0</strong></td>
</tr>
</tbody>
</table>

Source: Economic Planning Unit
These funds are provided by government and managed by its agencies:

**Current Fund Size:**
- MTDC Venture Capital Fund: RM 1,000 m/USD 293 m
- Malaysian Venture Capital (MAVCAP): RM 500 m/USD 147 m
- MDeC Pre Seed Fund: RM 80 m/USD 23 m

**Past Failures and Setbacks:**
- XXX VC Fund (TDCVF): >RM 100m/USD 30m
- XX Venture Fund (SCVF): RM 120m/USD 35m
- XX Venture Capital Fund (TTM): RM 10m/USD 3m
Comment on Best Practices (BP)
…. VC Fund for Specific Incubator

- **Best Practices for Incubator Management**
  - Numerous Publication on Best Practices
  - Successful BP elsewhere MAY NOT be appropriate for Local Implementation.

- “Incubator only earn rental revenue even when Incubatee Companies are Successful”.

- Hence, Need for Incubator to have own VC Fund.

- The Case of Incubators Managing VC Funds specific for their Incubatee Companies.

  - **Failures and Setbacks:**
    - XXX VC Fund (TDCVF) >RM 100m/USD 30m
    - XX Venture Fund (SCVF) RM 120m/USD 35m
    - XX Venture Capital Fund (TTM) RM 10m/USD 3m
Considerations on Incubators Managing Own VC Funds and Limited for Incubatee Cos. … (addressing Problems 5 & 6)

- “Arms-Length” Approach
  - VC Evaluation Team must be separate entity from Incubator Management.

- The Company Must Become VC Recipient First, before Becoming Tenant/Incubatee Company.
  - Should not allow current incubatee to become recipient.

- Use External Third-Party Evaluators if Current Incubatee Company is being recommended for own VC Funding.

- VC Fund should be opened to external parties as well.
Recent Successes of Incubation in Malaysia

- Technology Park Malaysia has more than 20 public-listed companies in their incubator program.
- MSC-Tech Comm Centre has 5 public-listed companies that graduated from their incubator program.
- 16 new incubators formed in last 10 years.
- Nine (9) are private-owned incubators formed in last 3 years.
Impact Assessment Study
... Incubator Association (NINA) is also involved.

- **Economic Planning Unit (EPU)** of Prime Minister’s Dept is conducting an Impact Assessment Study on Incubators in Wealth Creation.

- **Opportunity for Natl Incubator Network Association to provide input to Government.**

- Meeting Held Last April 07.

- Last Baseline Review Study done in 2004.

- Malaysia was a part of earlier study conducted by UNDP in 1999.

- Interesting to “RE-LOOK” at how Malaysian Incubation Industry perform and progress against the Four (4) Key Success Factors.

- Are current Incubator Operations sustainable??.
Benchmarking Against Key Success Factors

A. In Preparatory Process
B. In Implementation Process
C. Start of Initial Operations
D. Sustainability of Incubator Operations

Benchmarking Against
Key Success Factors (cont’d)

A. In Preparatory Process
1. Reconnaissance Surveys (locations, benefit/cost, etc.)
2. Local consultants
3. Identification of Strong Sponsor
4. Feasibility (entrepreneurial spirit, talent pool, linkages, etc.)
5. Commitment of agencies (federal, state, local, etc.)

B. In Implementation Process
1. Strong Mgmt linkage with Advisory Group
2. Careful selection, appointment and remuneration of Mgrs
3. Screening potentials of tenants (tech, business, marketing)
4. Sound tech assistance to supplement local skills
Benchmarking Against Key Success Factors

C. Start of Initial Operations
   1. Access to equity, credit and royalty facilities
   2. Involvement of private sector
   3. Continuing program for improving mgmt skills of incubator staff
   4. Links to other SME programs and support systems.

D. Sustainability of Incubator Operations
   1. Proactive pursuits of opportunities (home/abroad)
   2. Creative ways of raising incomes (corporate memberships, fees, etc.)
   3. Political Stability (macro-econ policies that encourages entrepreneurship, market stimulation, etc.)
   4. Objective re-evaluation of incubator experience.
### Benchmarking NINA Members Against Key Success Factors

**... A Personal Assessment**

<table>
<thead>
<tr>
<th>Incubator Name</th>
<th>Preparatory</th>
<th>Implementation</th>
<th>Initial Operations</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioEnterprise Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIP UTM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BT Multimedia (M)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Cluster</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastworld Multimedia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ispring Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KHTP Techno centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCA ICT Resource Centre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melaka K-Economy Incubator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSC-M’sia TCC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N2N Venture Solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perak Multimedia Dotcom</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIRIM Technology Incubator</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKALI E-Ventures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sohosuite</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usains Holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YTL e-Solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Overall Rating From Scale of 5 (i.e Low =1, and Very High = 5) = 3.19**
CONCLUSION

… Incubation Movement Enjoy HUGE SUPPORT from Federal Government of Malaysia

- Out of Total 72, **63 Incubators** are supported by Federal Government.

- Introduction of NEW INCENTIVES (MSC-Status Incubator) resulted in **Nine (9) Private Incubators** being formed.

- **Tech Incubators & Tech Parks** continue to receive funding/grant for establishment of new technology centres,
  - **Kulim Hi-Tech Park** - **USD 12 mil** for new centres/ **USD1.7 mil** for Incubator/Technopreneur Programs.
  - **Tech Park Malaysia** – **USD 12 mil** for upgrading existing centres

- Government increased Venture Capital Fund from RM 690m/USD202m to **RM 1600m/USD470 m** for Period 2006-2010, **despite past setbacks**.

- Federal Government **continue to solicit** Views/Advice from Incubator Association (NINA).
Caution/Danger

... Majority of Incubators are in “1st Generation versus in “3rd Generation” Category.

<table>
<thead>
<tr>
<th>Number of Incubators</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Generation Incubators</td>
<td>52</td>
</tr>
<tr>
<td>Real Estate, Landlord, Shared facilities, Reactive Support</td>
<td></td>
</tr>
<tr>
<td>2nd Generation Incubators</td>
<td>16</td>
</tr>
<tr>
<td>Real Estate, Landlord, Shared facilities, Reactive Support + Consulting/Advisory</td>
<td></td>
</tr>
<tr>
<td>3rd Generation Incubators</td>
<td>4</td>
</tr>
<tr>
<td>Facilities + business advisory services + Acceleration Technology Labs</td>
<td></td>
</tr>
</tbody>
</table>

- YTL E-Solutions/N2N Venture Solutions/
  BT Multimedia/BIP/UTM
- BioEnterprise Asia/MICTH/
- USAINS/SKALI E-Ventures
- ISpring Capital/Eastern MSC/
- PTTC/Creative Cluster
- MIRC/Sohosuite

- MSC Tech Com/
- KTMSB/
- SIRIM (STI)/
- Tech Park Msia
Caution/Danger: Majority of Incubators are in “1st Generation” Category versus in “3rd Generation” Category.

“Incubator” versus “Incubation”.

Malaysia must create an environment of opportunities that supports aspiring technopreneurs, tolerate failures, and rewards success across different regions.

Incubation and Innovation Support System are needed to form PILLARS for Strong National Innovation System.
THANK YOU

annuar62@gmail.com

www.nina.com.my

See also www.btds.biz (publications)
Evolution of Incubators

... Transformation from 1st to 3rd Generation Incubators

1st Generation
- Real estate, shared facilities
- Reactive support, Landlord-Tenant Relationship

2nd Generation
- + Advisory services, Proactive support

3rd Generation
- + Access to funding, Co-venturing
- Accelerating progress, Mentoring + Technology Labs

1990 - 1994
1995 - 1999
2000 - 2010

Incubator/(Physical Facility) → Effective Incubation Process and Conducive Ecosystem
National Innovation System Architecture

Source: Yeoh Beng Keat (MOSTI)
National Innovation System

... Interaction among Stakeholders

**R & D SECTOR**
Universities
Govt Research Institutions
Industry R&D

**EDUCATION & TRAINING**
Schools (Pri/Sec)
Vocational/Tertiary
Corporate training
Family/Community
Service Org/NGO

**ENTERPRISE**
Manufacturers/
Service Providers
Entrepreneurs
Managers
Customers
Suppliers

**GOVERNMENT**
Policy Coordination
Regulatory & Admin Environment
R&D Funding (Grants/Tax)
Innovation Role Model
Delivery System

**FINANCIAL SECTOR**
Venture Capitalists
Banks
Business Angels
Investors

**INNOVATION SUPPORT**
Tech Commercialisation offices/centres
**INCUBATORS**
TECHNOLOGY PARKS
IP Laws/Regulations
Business Consultants
Clusters/Networks

**GOVERNMENT**
Policy Coordination
Regulatory & Admin Environment
R&D Funding (Grants/Tax)
Innovation Role Model
Delivery System