



Asia-Pacific  
Economic Cooperation

---

2007/SOM1/HLPDAB/022

**Investment Toolbox  
Malaysian Biotech Corporation's Investment  
Toolbox: A Case Study**

Purpose: Information  
Submitted by: Malaysian Biotechnology Corporation



**High Level Policy Dialogue on Agriculture  
Biotechnology  
Canberra, Australia  
20-21 January 2007**

## Investment Toolbox

Malaysian Biotech Corporation's  
Investment Toolbox : A Case Study



Islah Ishak  
Malaysian Biotechnology Corporation

### APEC HLPDAB AgBiotech Investment Toolbox

- 2006 Hanoi Vietnam HLPDAB agreed that an Investment Toolbox for AgBiotech would be created and designed for countries that may be interested to apply AgBiotech in strengthening their own economies, knowing about the potential of AgBiotech; and getting information to help encourage AgBiotech investment and / or develop their AgBiotech industry.
- Toolbox component would take into consideration:
  1. Regulatory framework
  2. Research & Development
  3. Technology transfer
  4. Intellectual Property Management
  5. Outreach & communication
  6. Business opportunities

#### INVESTMENT TOOLBOX: CHALLENGES

- Twenty-one economies, at different stages of adoption of AgBiotech
- Toolbox must acknowledge that there is **NO one-size-fits-all** approach to investment in AgBiotech
- Public and private sectors will play different roles throughout APEC economies

→  
STEERING COMMITTEE  
• CANADA  
• MALAYSIA  
• PERU  
• RUSSIA  
• UNITED STATES

#### INVESTMENT TOOLBOX OUTCOMES

- ◆ More investments in APEC economies AgBiotech sectors
- ◆ Greater APEC economies cooperation in AgBiotech
- ◆ Increased realization of benefits of AgBiotech throughout APEC economies

Malaysian BiotechCorp Value Proposition takes into consideration of:

- Biotechnology Thrusts under Ninth Malaysia Plan (2006-2010)
- The National Biotechnology Policy
- Malaysian BiotechCorp mandate

### 9TH MALAYSIAN PLAN STRATEGIC THRUSTS FOR BIOTECH

- TRANSFORMING/ENHANCING VALUE CREATION IN AGR/ HEALTH/ INDUSTRY
- CAPITALISING ON BIODIVERSITY FOR (AG)BIOTECH INDUSTRY
- NURTURE GROWTH IN (AG)BIOTECH
- LEVERAGE ON TECH CONVERGENCE TO GROW (AG)BIOTECH
- PROMOTE BIONEXUS TO ATTRACT (AG)BIOTECH INVESTMENTS
- CREATE ENABLING ENVIRONMENT TO BUILD (AG)BIOTECH INDUSTRY
- ENHANCE HUMAN CAPITAL DEVELOPMENT
- ESTABLISH R&D CENTERS OF EXCELLENCE AND ACCELERATE TECHNOLOGY DEVELOPMENT, DIFFUSION AND COMMERCIALISATION

### Malaysian BiotechCorp Investment Toolbox takes into consideration of:

- Biotechnology Thrusts under Ninth Malaysia Plan (9MP 2006-2010)

#### The National Biotechnology Policy

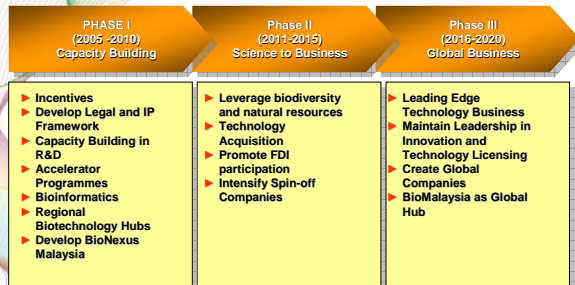
##### Mission Statement

- ▶ Innovation to create wealth by utilising and advancing biotechnology for socio-economic benefits of the nation in accordance with established social and ethical norms

##### Vision

- ▶ Position biotechnology as the new economic engine to enhance prosperity and wellness of the nation by 2020
- ▶ Through Healthcare, Industrial and Agriculture
- ▶ Enhance R&D and Tech Acquisition, Human Capital Development, Legal and Financial Structure

### MALAYSIAN BIOTECH POLICY ACTION PLAN



### SUMMARY OF POLICY THRUSTS

**VISION**  
Position biotechnology as the new economic engine to enhance prosperity and wellness of the nation by 2020

- THRUST 1 : Agricultural Biotechnology Development
- THRUST 2 : Healthcare Biotechnology Development
- THRUST 3 : Industrial Biotechnology Development
- THRUST 4 : R&D and Technology Acquisition
- THRUST 5 : Human Capital Development
- THRUST 6 : Financial Infrastructure
- THRUST 7 : Legislative and Regulatory Framework
- THRUST 8 : Strategic Development
- THRUST 9 : Government Support and Commitment

APEC HIGH LEVEL POLICY DIALOGUE 19-22 JAN 2007 <sup>3</sup>

**Malaysian BiotechCorp Investment Toolbox takes into consideration of:**

- Biotechnology Thrusts under Ninth Malaysia Plan (2006-2010)
- The National Biotechnology Policy
- Malaysian Biotech Corporation
- Globalization – What Does It Mean For Us?



APEC HIGH LEVEL POLICY DIALOGUE 19-22 JAN 2007

**OBJECTIVES**

Objective of Biotech Corp	<ul style="list-style-type: none"> <li>▶ Primary Government Development Agency for Malaysia's biotech industry</li> <li>▶ One-Stop Center to facilitate start up of biotech business and operations</li> </ul>
Objective of Agriculture Division	<ul style="list-style-type: none"> <li>▶ Assist in development of agricultural biotechnology infrastructure within Malaysia, in areas of human capital, technology platforms, research capabilities, new technologies, and a burgeoning business environment.</li> <li>▶ To attract innovative, business oriented, internationally minded companies to Malaysia.</li> </ul>

APEC HIGH LEVEL POLICY DIALOGUE 19-22 JAN 2007

**MALAYSIAN BIOTECHNOLOGY CORPORATION**

Governance	<ul style="list-style-type: none"> <li>▶ Report to Implementation and Advisory Councils, under leadership of Malaysian Prime Minister</li> </ul>
Objective	<ul style="list-style-type: none"> <li>▶ Mechanism for implementation and coordination of National Biotech Policy</li> </ul>
Functions	<ul style="list-style-type: none"> <li>▶ Lead Government Development Agency for Malaysia's biotech industry</li> <li>▶ One-Stop Center to facilitate start up of biotech business and operations</li> <li>▶ Facilitates and catalyzes technology and commercial spin-offs to the private sector</li> </ul>

APEC HIGH LEVEL POLICY DIALOGUE 19-22 JAN 2007

**ROLE OF MALAYSIAN BIOTEHCORP**

Role 1	<ul style="list-style-type: none"> <li>▶ Biotech industry development agency and one-stop-centre for promotion of Biotech growth in Malaysia</li> </ul>
Role 2	<ul style="list-style-type: none"> <li>▶ Ensure Government's biotechnology objectives and strategies are fully deployed (under custodian of Ministry of Science of Technology &amp; Innovation, MOSTI) with other Ministry's representative among Board members</li> </ul>
Role 3	<ul style="list-style-type: none"> <li>▶ Create presence in biotechnology industry value chain</li> </ul>
Role 4	<ul style="list-style-type: none"> <li>▶ Coordination of biotechnology development effort</li> </ul>

### MARKET ACCESS

ASEAN Market

- ▶ ASEAN Free Trade Area (AFTA) established January 1992 to eliminate tariffs
- ▶ Regional market of 500 million people and combined GDP of USD800 billion

Asian Market

- ▶ Proposed ASEAN FTA with India, China and Japan
- ▶ Total trade MYR968 billion (USD262 billion), primarily with North-East Asia (USD86 billion), ASEAN (USD66 billion), US (USD45 billion) and EU (USD31 billion)

Islamic Countries' Market

- ▶ Access to Middle East and other Islamic countries
- ▶ 'Halal' market

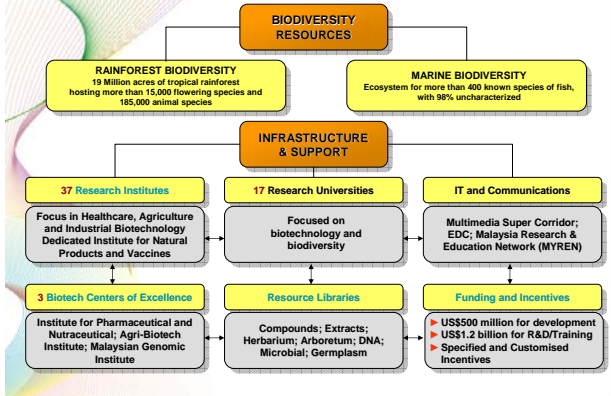
**Supported by Developed Infrastructure**  
 International and Domestic Transport Linkages;  
 Multimedia Super Corridor; Industrial/Technology Parks;  
 High-Tech Telecommunications

### BUSINESS ENVIRONMENT

**Market-oriented Economy, Supportive Government Policies, Large Local Business Community and Growing Life Sciences Industry**

ECONOMIC STRENGTH	SUPPORTIVE GOVERNMENT POLICIES	HUMAN CAPITAL	LIFE SCIENCES INDUSTRY POTENTIAL
Continuous Economic Growth High Level of Global Integration Knowledge-based Economy Market-oriented Economy Well-developed financial and banking sector Extensive trade links Total Trade 134% of GNP Competitive Business Costs	Liberal Equity Policy Competitive Tax Incentives Pro-business Policies Responsive Government Liberal Investment Policies Attractive Tax And Other Incentives Liberal Exchange Control Regime	Talented, young, educated and productive workforce Multilingual workforce Comprehensive vocational and industrial training Harmonious industrial relations	BioNexus Status Fiscal and Financial Incentives CROs/CMOs Conductive Regulatory Framework Intellectual Property Protection

### R&D RESOURCES AND INFRASTRUCTURE



### BIODIVERSITY

**Natural Product Discovery**

- ▶ One of 12 mega biodiverse tropical rainforest
- ▶ R&D by government and private research institutions and university research labs
- ▶ Extensive research in isolating and characterising natural compounds and potential active molecules
- ▶ Libraries of characterised compounds

**RESEARCH INSTITUTIONS**

Institutes of Higher Learning

▶ **17 Public Universities with research institutes focused on biotechnology and biodiversity**

Government Research Institutes

▶ **37 Institutes with focus in Healthcare Biotechnology, Agriculture and Industrial Biotechnology**

**LIBRARIES**

Herbarium

▶ **FRIM, USM, UPM, UKM, MARDI, UMS**

Extracts

▶ **USM, FRIM, UM, UMS**

Microbial Collections

▶ **UM, UMS, MARDI, FRIM, UPM, UKM, USM**

Arboretum

▶ **MARDI, UM, UPM, FRIM, USM**

Germplasm

▶ **UMS, UPM, MARDI**

DNA Library

▶ **UMS, MARDI**

**INCENTIVES**

Incentives

- ▶ **BioNexus Status, Bill of Guarantee and Competitive Incentives**
- ▶ **Venture capital funding, and Malaysian Life Science Fund**
- ▶ **Well funded Government-Linked Corporations**
- ▶ **Prepackage Incentives, R&D and Training grants and soft loans**

**BIONEXUS status**

**Eligibility Criteria**

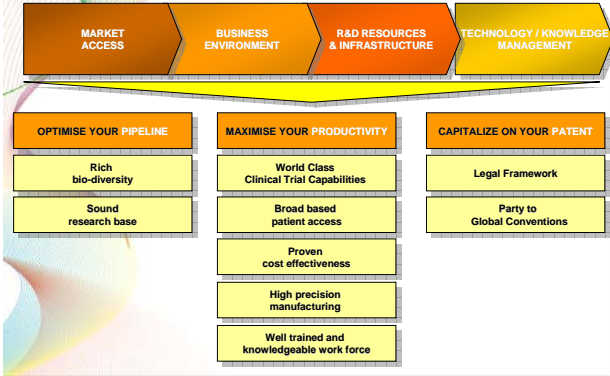
- ▶ **Establish a separate legal entity for the BioNexus-qualifying business and activities**
- ▶ **Be a provider of a product or services based on life sciences, or substantially utilise life sciences processes in production or agriculture**
- ▶ **Possess research capability, and must be conducting research in healthcare, agri-bio, industrial biotech or bio-manufacturing**
- ▶ **Employ significant percentage of knowledge workers**
- ▶ **Comply with environmental and ethical guidelines**

**Bill of Guarantees**

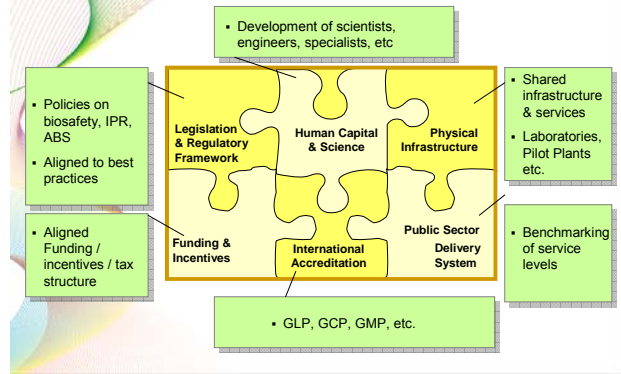
1. **Freedom of ownership**
2. **Freedom to source funds globally**
3. **Unrestricted employment of knowledge workers**
4. **Eligibility for competitive incentives and development programmes - Tax incentives, grants and other assistance**
5. **Provide an environment enabling accreditation to international standards**
6. **Provide an environment for intellectual property protection and enforcement comparable to global standards**
7. **Access to a supportive information network linking research centres of excellence**
8. **Access to shared labs, facilities and services**
9. **BiotechCorp as the dedicated agency empowered to act as a one-stop centre and provide fast-track options for Government approvals and licences**

[www.biotechcorp.com.my](http://www.biotechcorp.com.my)

**OVERALL IMPACT OF VALUE PROPOSITIONS**



**CREATION OF A CONDUSIVE CLIMATE IN INVESTMENT TOOLBOX**



**DEVELOPMENT MECHANISMS**



**CLIENT SERVICES SUPPORT DIVISION**



### DEVELOPMENT PROGRAMMES

#### Client Support Services



### COMMERCIALISATION GRANT

#### COMMERCIALISATION GRANT

#### OBJECTIVE

- FUNDING TO PRIORITY BIOTECH AREAS AND BRIDGE FUNDING GAPS
- CREATE COMPREHENSIVE GRANT MECHANISM ENCOMPASSING THE ENTIRE RESEARCH, DEVELOPMENT & COMMERCIALISATION CHAIN
- ATTRACT & INCENTIVISE RESEARCHERS TO DEVELOP BIOTECH INDUSTRY
- PROVIDE FUNDING & CAPITAL FOR BIO ENTREPRENEURS

### TECH ACQUISITION GRANT

#### TECHNOLOGY ACQUISITION PROGRAMME

#### OBJECTIVE

- ACQUIRE LEADING EDGE TECHNOLOGIES ON BEHALF OF AND FOR BIOTECH INDUSTRY
- FACILITATE DEVELOPMENT OF CORE AND PRIORITY AREAS
- ACCELERATE GROWTH OF BIOTECH INDUSTRY
- ESTABLISH ROBUST FOUNDATION IN BIOTECH R&D

### IP RESEARCH & MANAGEMENT PROGRAMME

#### IP RESEARCH & MANAGEMENT PROGRAMME

#### OBJECTIVE

- STUDY AND ENHANCE COMPETITIVENESS OF IP ENVIRONMENT
- PROMOTE AWARENESS AND EDUCATION IN IP
- ENHANCE SKILLS AND EXPERTISE OF IP EXAMINERS
- ESTABLISH INTERNATIONAL DEPOSITORY AUTHORITY

## BIOTECH ENTREPRENEUR PROGRAMME

BIOTECH  
ENTREPRENEUR  
PROGRAMME

OBJECTIVE

- PROVIDE BIOTECH ENTREPRENEURS WITH SKILLS AND KNOWLEDGE
- FACILITATE ESTABLISHMENT OF START UPS AND DEVELOP SME BASE
- ENHANCE COMPETITIVENESS OF ENTREPRENEURS AND THEIR BUSINESSES
- ENHANCE INDIVIDUAL PARTICIPATION IN BIOTECH

## 10 Components of Investment Toolbox (for Malaysia as one of the economies) in a nutshell, we would look at:

1. Structure of National Biosafety regulations (Complex ? / transparency )
2. R&D
  - Capability & Capacity building (Human Capital development)
  - Foresight and roadmap (blueprint / strategic planning of AgBiotech)
  - Cooperative R&D (multilateral / bilateral)
  - Knowledge / Technology generation
  - Scientific & Technological exchange programmes
3. IP Management / protection (effective?)
4. Incentives i.e. Pioneer Status /Investment Tax Allowance / Incentives in production of biotech related product
5. Financing / funding
6. Government's focus (based on comparative advantage?)
7. Bureaucratic-related investment licensing & permit (investor friendly?)
8. Tax systems (cumbersome? investor friendly?)
9. Outreach & communication

## Creation of APEC AgBiotech Investment Toolbox : Next steps..

### APEC HLPDAB AGBIOTECH INVESTMENT TOOLBOX: Next steps...

1. Meeting of the Steering Committee - call for additional steering committee members?
2. Definition of toolbox components by APEC economies involved
3. Identification of similar efforts in other fora, coordination of activities amongst economies
4. Identification of target audience (farmers, legislators, policy makers, financers, investment bankers)
5. Identification of contributors to the Investment Toolbox
6. Establishment of NEW due dates for Toolbox components and final product by all economies involved.

*Thank You*