

## **MALAYSIA ANNOUNCES “NEW” NATIONAL BIOTECHNOLOGY POLICY**

### Background

Biotechnology has been identified as a new engine of economic growth for Malaysia. It is envisioned that biotechnology will be able to improve the quality of life, generate new wealth and income for both rural and urban populations and improve the socio-economic status of the population as a whole. However, despite the enthusiasm, efforts, plans and substantial financial resources that have been put in over the last few years to create a “Biovalley” and turn the country into a biotech hub, the results have been more than a little disappointing. So much so that the biotechnology policy had to be overhauled and a new strategy unveiled.

### National Biotechnology Policy – Nine Policy Initiatives

In order to fully realize Malaysia’s natural biotechnology potential, the country’s resources need to be deployed in a more structured and focused manner. In view of this, a new biotech policy was created, focusing on key concepts and measures offered by the government to take Malaysia’s biotech sector forward. The new policy was unveiled by the Prime Minister at the opening ceremony of the BioMalaysia 2005 conference at the Putrajaya International Convention Center. The Prime Minister outlined nine major initiatives to realize the country’s potential in the biotechnology sector:

#### **Initiative 1: Agriculture Biotechnology Development**

Transform and enhance the value creation of the agriculture sector through biotechnology.

#### **Initiative 2: Healthcare Biotechnology Development**

Capitalize on the strengths of biodiversity to commercialize discoveries in natural products as well as position Malaysia in the bio-generics market.

#### **Initiative 3: Industrial Biotechnology Development**

Ensure growth opportunities in the application of advanced bio-processing and bio-manufacturing technologies.

#### **Initiative 4: R&D and Technology Acquisition**

Establish Centers of Excellence, in existing or new institutions, to bring together multidisciplinary research teams in coordinated research and commercialization initiatives. Accelerate technology development via strategic acquisitions.

#### **Initiative 5: Human Capital Development**

Build the nation’s biotech human resource capability in line with market needs through special schemes, programs and training.

#### **Initiative 6: Financial Infrastructure Development**

Apply competitive “lab to market” funding and incentives to promote committed participation by academia, the private sector as well as government-linked companies. Implement sufficient exit mechanisms for investments in biotech.

### **Initiative 7: Legislative and Regulatory Framework Development**

Create an enabling environment through continuous reviews of the country's regulatory framework and procedures in line with global standards and best practices. Develop a strong intellectual property protection regime to support R&D and commercialization efforts.

### **Initiative 8: Strategic Positioning**

Establish a global marketing strategy to build brand recognition for Malaysia biotech and benchmark progress. Establish Malaysia as a center for Contract Research Organizations and Contract Manufacturing Organizations.

### **Initiative 9: Government Commitment**

Establish a dedicated and professional implementation agency overseeing the development of Malaysia's biotech industry, under the aegis of the Prime Minister and relevant government ministries.

### Timeline

The National Biotechnology will be implemented in three phases:

**Phase 1 (2005-2010) – Capacity Building:** will see the establishment of advisory and implementation councils, education and training of knowledge workers, business development and industry creation in agricultural biotech, healthcare biotech, industrial biotech and bio-informatics.

**Phase 2 (2011-2015) – Science to Business:** involves developing expertise in the discovery and development of new drugs based on natural resources.

**Phase 3 (2016-2020) – Global Presence:** will focus on taking Malaysian companies globally.

### Establishment of the Malaysian Biotech Corporation

Speaking at the opening, the Prime Minister also announced the newly created Malaysian Biotech Corporation (MBC) to oversee the implementation of the new policy and initiatives. It is aimed to be a dedicated and professional one-stop agency with the main objective of developing the country's biotech industry. It is overseen by an Implementation Council and advised by an International Advisory Panel, both under the leadership of the Prime Minister of Malaysia. MBC will coordinate biotech initiatives from all relevant government ministries, but will come under the purview of the Ministry of Science, Technology and Innovation. It will also work closely with relevant ministries to enhance biotech R&D and help improve the regulatory environment.

Some functions of the Malaysian Biotech Corporation includes:

- Catalyzing commercial spin-offs to the private sector.
- Facilitating market-driven R&D and commerce via funding and industry development services.

- Advancing R&D and commerce in agriculture biotechnology, healthcare biotechnology and industrial biotechnology.

#### Creation of BioNexus Malaysia

The Government of Malaysia has decided to move away from an “infrastructure” focus on a single locality to one that builds on the existing institutions. The Government has replaced the previous ‘BioValley’ concept with the ‘BioNexus Malaysia’, which is essentially a network of centers of excellence throughout the country, comprising companies and institutions that specialize in specific biotech sub-sectors. Some of this network can already be seen in the facilities, infrastructure and human capital currently existing in some of the country’s universities, research institutions and commercial centers. However, more resources are needed to build these institutions into true centers of excellence for future research or commercial ventures.

Initially, three centers of excellence will be established as part of the BioNexus:

- The center of Excellence for Agro-biotechnology will be focused around Malaysian Agriculture Research and Development Institute (MARDI) and University Putra Malaysia at Serdang.
- The Center of Excellence for Genomics & Molecular Biology will be focused in University Kebangsaan Malaysia at Bangi.
- The Center of Excellence for Pharmaceuticals & Nutraceuticals will be built in the BioValley site, near Dengkil.

#### Financial Incentives

Malaysia provides competitive financial incentives under existing packages, which are also applicable to biotech proposals. These include:

- Promotion of Investments Act 1986 (PIA)
- Pre-packaged incentives
- Various government grant programs

Other additional incentives are:

- Tax write-offs for companies whose subsidiaries invested in biotech sector and suffered losses. For an example, if the subsidiary lost \$2 million, the loss can be subtracted from the tax-deductible profits of the parent company. The Government is trying to mitigate risks so that the companies will be motivated to move into the industry.

- The Government has also agreed to allow retired scientists and lecturers to continue to do research until 65 years old (existing retirement age is 56). \$26 million is being allocated to biotechnology infrastructure that will be used to bear the cost of maintaining the services of these scientists to help develop the biotechnology sector.

#### Investments

By 2020, the biotechnology sector is expected to create 280,000 jobs and contribute five percent to Malaysia’s Gross Domestic Product (GDP), according to Tan Sri Dr Ahmad

Zaharudin Idrus, the newly appointed Chairman of MBC. Over the next 15 years, 100 reputable biotechnology companies will be established in Malaysia. Total investments under the National Biotechnology Policy are expected to be around \$8 billion.

As Malaysia moves forward and creates a strategic plan for achieving its numerous policies, U.S. firms can benefit from the opportunities that will be created in this sector, from supplying scientific equipment to conducting R&D. U.S. firms interested in finding out more should contact this report's author, Ms. Natila Ahmad, at [Natila.Ahmad@mail.doc.gov](mailto:Natila.Ahmad@mail.doc.gov).