

MALAYSIAN BIOECONOMY DEVELOPMENT CORPORATION SDN BHD

OPPORTUNITIES IN BIOTECHNOLOGY IN MALAYSIA

Session 2: Bioeconomy Action For Sustainability
3 APRIL 2023

KEY ROLES & STAKEHOLDERS



Bioeconomy Corporation is entrusted to drive the National Biotechnology Policy 2.0 agendas focusing on accelerating towards a bio-innovation nation for wealth creation, societal well-being and enhancing sustainable development

Domestic Direct Investment Central Contact Point Facilitation Reporting 100% ownership

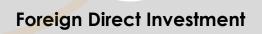
Conducive Ecosystem

Ministry of Finance

Incorporated (MOF)



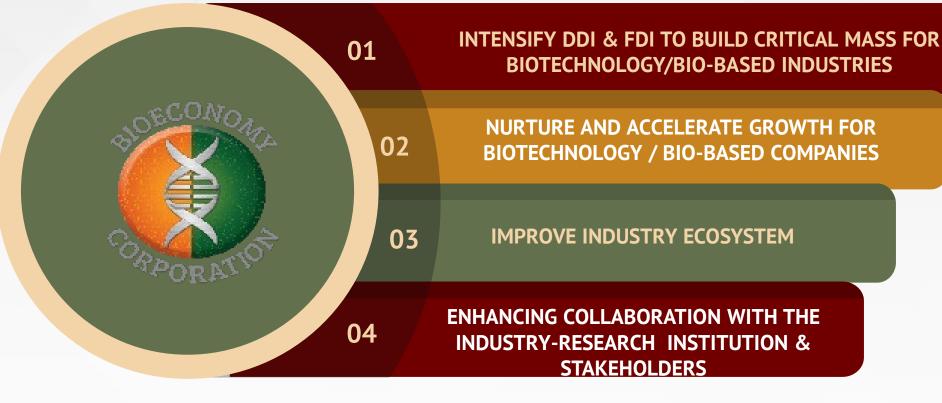
Ministry of Science Technology & Innovation (MOSTI)



Economic Development Agency Biotechnology & Bio-based

BIOECONOMY CORPORATION'S STRATEGIES













































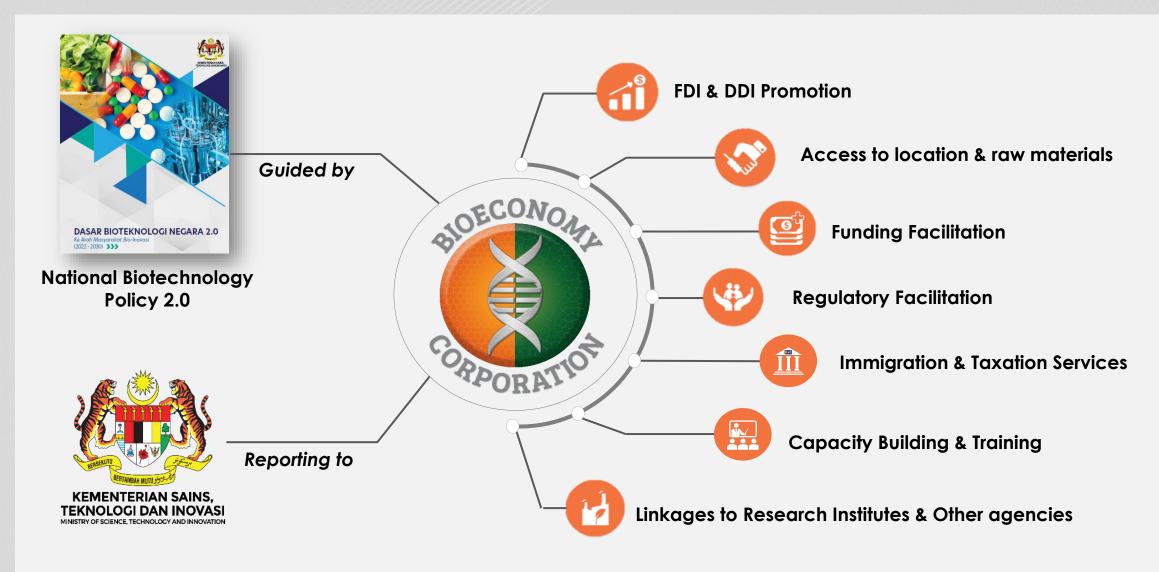
Medical Device



MALAYSIAN BIOECONOMY DEVELOPMENT CORPORATION

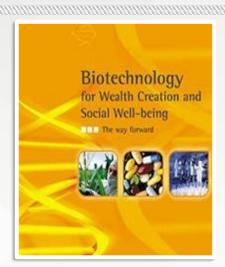
CORPORATION

Organization Role & Facilitation



NATIONAL BIOTECHNOLOGY POLICY





In 2005, the National Biotechnology Policy (NBP) was launched as "a comprehensive and coordinated approach for the advancement of biotechnology as a strategic technology in the development of the economy" (Source: RMK9Scorecard)

As part of the Government's commitment in the NBP (Thrust 9), it established a dedicated lead agency - Malaysian Bioeconomy Development Corporation to lead the development of the biotechnology industry

[IMPLEMENTATION PERIOD 2005 - 2020]



The National Biotechnology Policy (NBP) 2.0 is a continuation from previous NBP (launched on 12 September 2022) — Accelerating towards a bio-innovation nation for wealth creation, societal well-being and enhancing sustainable development

Malaysian Bioeconomy Development Corporation continue to lead the development and commercialisation of the biotechnology industry

[IMPLEMENTATION PERIOD 2022 - 2030]

KEY MILESTONE



National Biotech Policy & Bioeconomy Corporation

2005

National Biotech Policy

(Malaysian Biotechology **Development Corporation)**

Lead Development Agency for bio-based sector and to ensure implementation of biotechnology initiatives

2016

Rebrand to Malaysian Bioeconomy Development Corporation

to cover all sectors of bioeconomy

2022-2030

National Biotech Policy 2.0

A comprehensive strategy that seeks to leverage biotechnology to drive economic growth and promote sustainability in the country





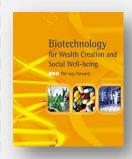






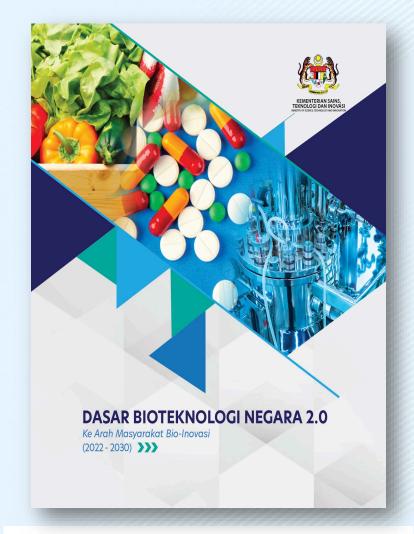








NBP 2.0 THREE MAIN SECTORS



NBP 2.0 Towards a bio-innovation society (2022-2030)



Biotechnology in Agriculture and Food Security



Biotechnology in Healthcare and Well-being



Biotechnology in Industrial and Circular Economy

5 FLAGSHIPS PROGRAMS AND FUTURE TECHNOLOGIES

Biotechnology in Agriculture and Food Security



Sustainable production system for future assurance Food ecosystem for the future and high-value products

Biotechnology in Healthcare and Well-being



Use of halal botanical medicine and natural remedies Use of biologics, omics technology and targeted therapy

Biotechnology in Industrial and Circular Economy



Industrial biotechnology for circular economy

NBP 2.0 POLICY TARGETS

Biotechnology Industry

5% of the country's GDP contributed by biotechnology companies

3 unicorns from the biotechnology companies

30% of BioNexus companies at the global level and **70%** of BioNexus companies locally

4 Biotechnology Talent

80% of biotechnology graduates recognized through the micro-credentials program and 20% of biotechnology graduates in the postgraduate program (MSc dan PhD) specializing in biotechnology based on the 10-10 MySTIE framework

5 The Importance of Research

Empowerment of world-class biotechnology institutes in aspects of:

- Research and Publication
- Prominent Scientist Researchers
- High-tech Platforms for the Scientific Community

IMPROVEMENT OF NBP2.0

National Biotechnology Policy 2005-2020

- 1. Phases of implementation:
 - I. Phase 1: Capacity building (2005-2010)
 - II. Phase 2: Science to business (2011-2015)
 - III. Phase 3: Global level of business (2016-2020)
- 2. Emphasis on public sector in biotechnology.
- 3. Focusing on the development needs of researchers and professionals in biotechnology.
- 4. Focuses in traditional biotechnology with specific action plan.
- 5. The governance structure focused on biotechnology only.

National Biotechnology Policy 2.0

- 1. Policy implementation is done through a cyclical approach where implementation and Policy Steps in all strategic cores are carried out simultaneously.
- 2. Emphasizing the importance of industry-driven financing.
- Underlines the need to develop specialized talent in biotechnology and the creation of bio-innovation entrepreneurs.
- 4. Areas of focus that have flagship programs and future technologies that connect the circular economy.
- A governance structure that integrates biotechnology with various other fields of technology.

BIONEXUS STATUS

BIONEXUS STATUS PROGRAMME - BACKGROUND







- A recognition awarded by the Malaysian Government through Bioeconomy Corporation.
- Awarded to qualified companies undertaking value-added biotechnology activities;
- Comes with a set of incentives and privileges contained within the BioNexus Bill of Guarantees





HEALTHCARE BIO

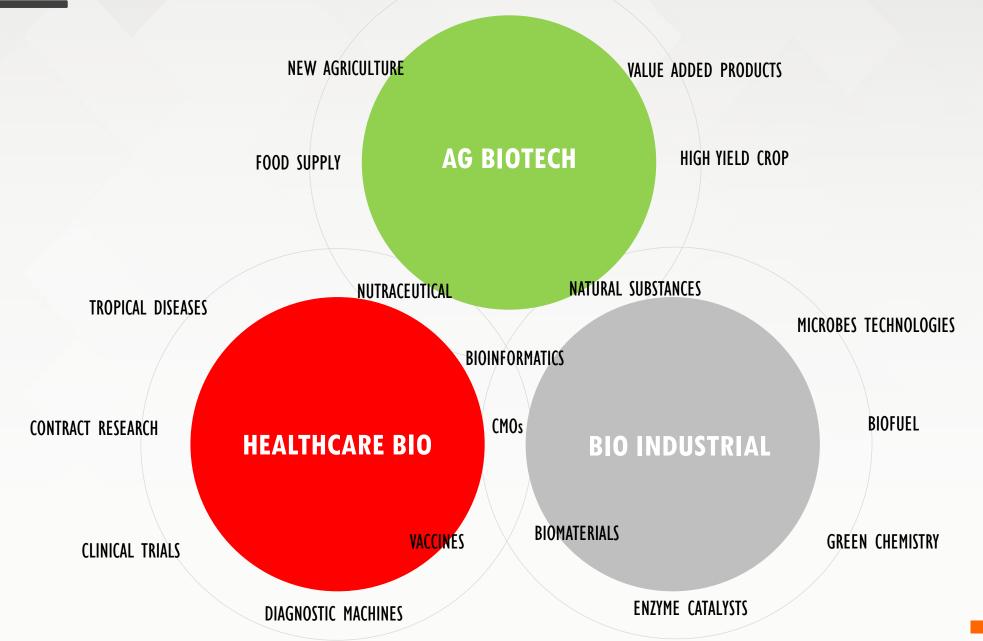


BIOINDUSTRIAL









BILLS OF GUARANTEE (BOG)





Freedom of **ownership**



Freedom to **source funds** globally





Freedom to bring in knowledge workers



Eligibility for BioNexus Status incentives



Facilitation of international accreditation and standards

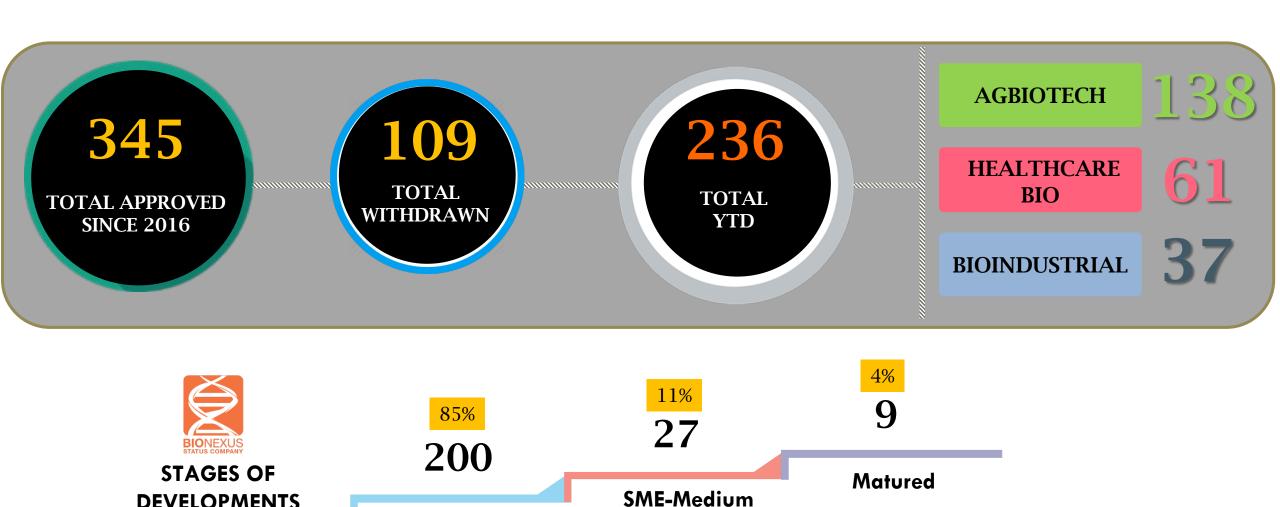


Access to BioNexus Partners Program (BNP) for **shared laboratories** and other facilities

BIONEXUS STATUS COMPANIES



as at 31 Dec 2022



SME-Small

DEVELOPMENTS

PUBLIC LISTED COMPANY



1 Listed BNX status company:

ACE Market, KLSE



15 BNX status company with listed holding company:

Main Board, KLSE



BNX company:

QL Agrobio Sdn Bhd



BNX company:

- 1. Genting Green Tech Sdn Bhd
- 2. ACGT Sdn Bhd



BNX company:

101 Palm Biotech Sdn Bhd



BNX company :

Yenher Biotech Sdn Bhd

Taiwan Stock Exchange



BNX company:

All Cosmos Industries Sdn Bhd

ACE Market, KLSE



BNX company:

Bioalpha R&D Sdn Bhd



BNX company:

Sunzen Life Sciences Sdn Bhd



BNX company :

Nova Laboratories Sdn Bhd

Australian Securities Exchange



BNX company:

Holista Biotech Sdn Bhd

Hong Kong Stock Exchange



BNX company :

Ritamix Sdn Bhd

AIM Market, London



BNX company:

Bion Sdn Bhd

Singapore Exchange



BNX company :

New York Stock Exchange



BNX company:

IQVIA RDS Malaysia Sdn Bhd



BNX company :

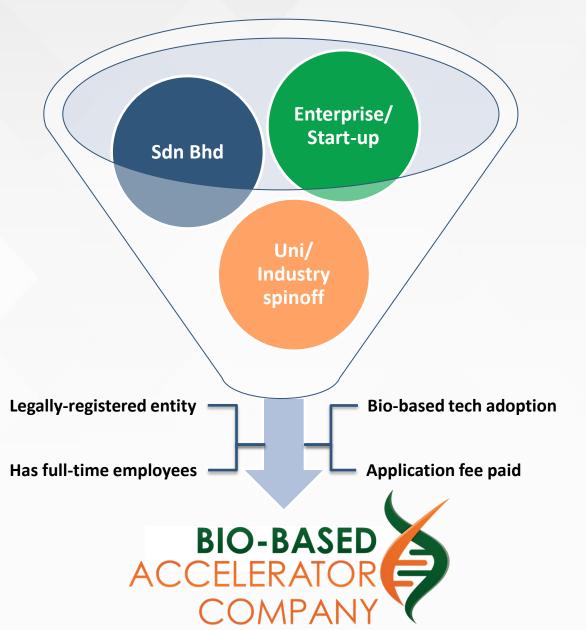
DNA Laboratories Sdn Bhd

BIO-BASED ACCELERATOR (BBA)

BIO-BASED ACCELERATOR PROGRAMME (BBA)

INTRODUCTION & WHO CAN APPLY?





- A guidance programme for bio-based companies that serves as a stepping stone to obtain BioNexus status / other incentives.
- ☐ Focus Areas:







The Programme intends to <u>identify gaps & provide structured</u> <u>facilitations</u>, <u>knowledge transfer & trainings</u>.



Infuse Science, Technology & Automation



Regulatory
Compliance &
Certification of
Products/Services



Financial & Funding Opportunities



Market Access

BIO-BASED ACCELERATOR PROGRAMME (BBA)

PRIVILIGES







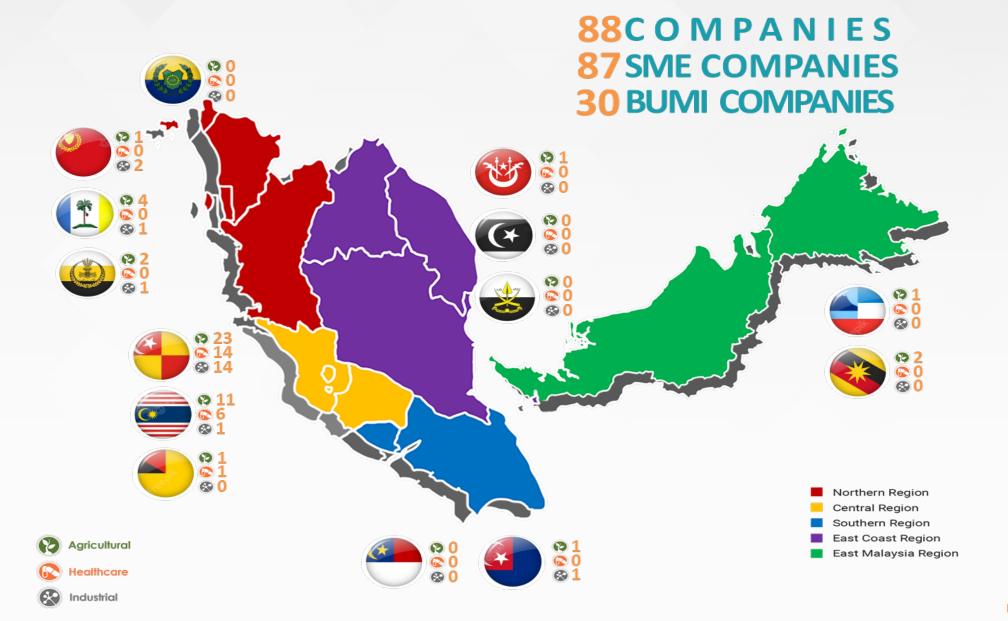




BIO-BASED ACCELERATOR PROGRAMME (BBA)

BBA COMPANIES BY STATES





AGRO-BASED VENTURE FUND(AGVF)

FUNDING - AGRO-BASED VENTURE FUND

AGVF Programme



Agro-based Venture Fund Programme (AGVF) is essentially an Equity Funding Programme developed to address the funding needs of eligible Early Stage
Companies, SMEs and Pre-Initial Public Offering Exercises.

OBJECTIVES:

To invest and support bio-based companies' activities – working capital, expansion project, refinance debt

TARGET RECIPIENTS: early Stage Companies; SME Companies, pre-IPO companies

INVESTMENT PERIOD: 3 years with funding quantum of RM500k RM8mil per company

SMEs DEVELOPMENT

DEVELOPMENT PROGRAMMES FOR ENTREPRENEURS AND SMES



1. PRODUCT DEVELOPMENT PROGRAMME

To enhance entrepreneurs & SMEs products into premium and innovative products:



Product formulation



Lab analysis



Product improvement



Regulatory services

2. CERTIFICATION PROGRAMME

Create awareness on the importance and benefits for SME companies on certifications:











3. LAB TESTED PROGRAMME

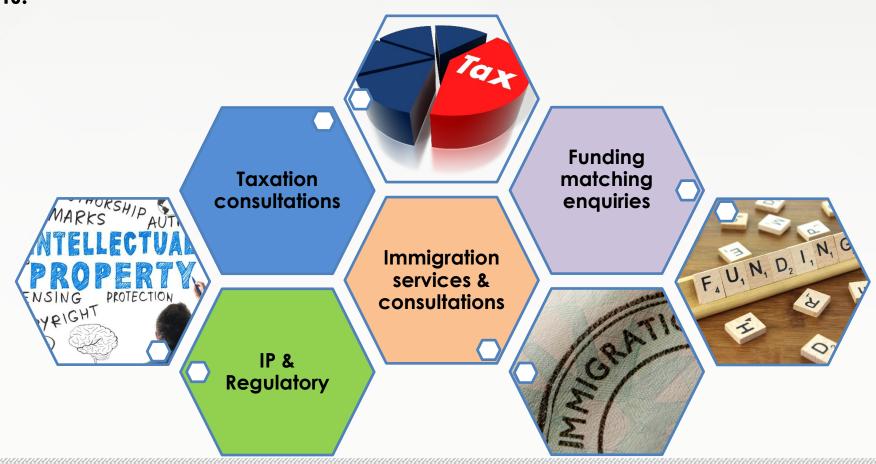


- To boost consumers' confidence by encouraging local cosmetic & personal care manufacturers' products to undergo laboratory testing as specified by relevant authorities.
- Once passed, special logo ("Lab Tested") will be permitted to be printed on product label to certify that product is free from prohibited substances (heavy metals & microbial contaminations) & safe to use.

BUSINESS ADVISORY FOR ENTREPRENEURS AND SMEs



One-stop-centre for provision of advisory and facilitation services to BNX & BBA companies, entrepreneurs and startups in matters related to:-



BIONEXUS PARTNERS (BNP) LABORATORIES



Bioeconomy Corporation provides a network of key biotechnology facilities from universities, research institutions, centres of excellence and GLCs with access to latest technology, accredited facilities and expertise in:

- Certified lab analyses
- O R&D collaboration & commercialization
- Method & product development or improvement
- Consultancy services, training and pilot or field trial to bio-based industry players.



MARKET ACCESS & BUSINESS SUPPORT





Promote Malaysian bio-based products & services

We help connect the right products to the right markets and the right buyers

- Identify gaps/needs of entrepreneurs, businesses and companies in accessing markets;
- Assist entrepreneurs, businesses and companies in accessing marketplaces through customized facilitation and assistance, smart and strategic partnerships, inter-organization collaborations, and education and awareness programmes;
- Build business connections and networks to expand the access of Malaysian entrepreneurs, businesses and companies in the domestic and global markets

BIOACADEMY





OUR VISION & MISSION IS TO BECOME THE PREMIER FACILITATOR FOR TALENT DEVELOPMENT AND ALSO TO NURTURE THE TALENT CAPABILITY WITHIN THE INDUSTRY

DEVELOP SKILLED TALENT TO ENSURE AN ADEQUATE SUPPLY OF KNOWLEDGEABLE WORKFORCE IN THE INDUSTRY

OBJECTIVES

FACILITATE INDUSTRY TALENT DEVELOPMENT & CAPACITY BUILDING

DEVELOP CAPABILITIES ACROSS THE
BIOTECHNOLOGY INDUSTRY & TO FOSTER THE
LIFE LONG LEARNING CULTURE

BeST 2.0 PROGRAMME





BioAgrotech & BioPharmaceutical Employability and Entrepreneurship Specialised Training (BeST 2.0)

- The objective of BeST 2.0 programme is to enhance the employability of graduates by equipping them with skills and knowledge of real life industry-work experience in Biotechnology & Bio-based industry.
- A 6 months apprenticeship programme with industry exposure in biotech/bio-based companies
- Biotechnology companies will be the host companies
- Criteria of graduates:
 - 21 to 33 years
 - Diploma/ Bachelor Degree/Master/ Ph.D
 - Fresh graduate or work experience not exceeding two years

BeST 2.0 PROGRAMME



- BeST 2.0 programme is a 6 month (classroom training + on-the-job training) "Place, Train & Hire" programme designed to enhance the employability of graduate by equipping them with sspecialized skills and knowledge of real life industry-work experience at biotechnology, bio-based, agriculture/agro-food and bio-pharmaceutical based companies ("Host Companies").
- Objective Candidates absorbed as permanent employees by Host Company after Program completed.





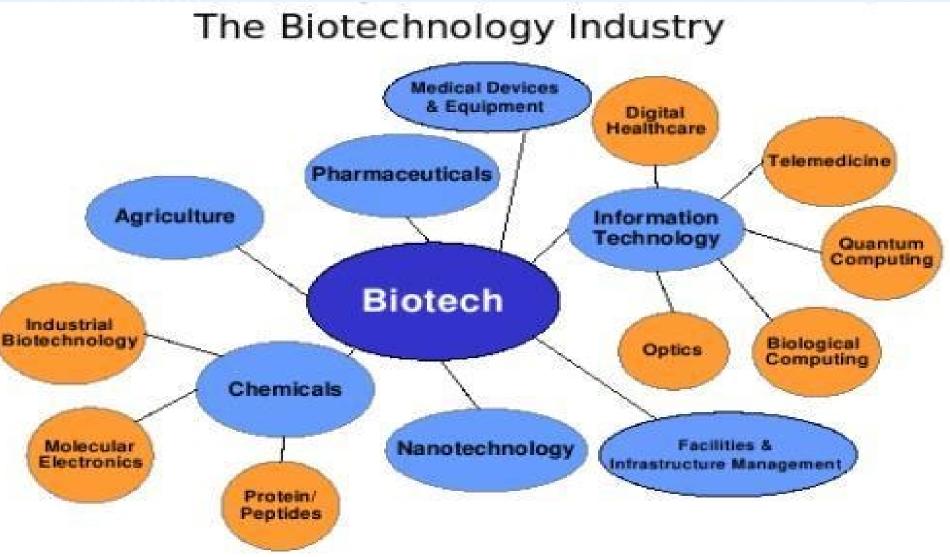


CAREERS IN BIOTECHNOLOGY





Selaras dengan RMK-12, kerajaan menetapkan sasaran untuk mencapai STATUS NEGARA BERPENDAPATAN TINGGI pada tahun 2025.



BIOCAREER FAIR



















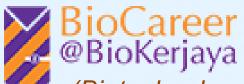


BIOKERJAYA





FOLLOW US (BIOECONOMY) SOCIAL MEDIA PLATFORMS FOR CAREER OPPORTUNITIES AND BIO-ENTREPRENUERSHIP PROGRAMS



www.biokerjaya.my

(Biotechnology & Bio-based Job matching platform/portal)



bioeconomycorporation



bioeconomycorporation



BioAcademy



@bioeconomycorp

Thank You

Nora Mohamed Senior Vice President Industry Support



MALAYSIAN BIOECONOMY DEVELOPMENT **CORPORATION SDN BHD**

www.bioeconomycorporation.my

Ground Floor, Menara Z10, Jalan Alamanda 2, Presint 1, 62000 Wilayah Persekutuan Putrajaya, MALAYSIA T: +603 8893 4200 F: +603 8893 4300



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