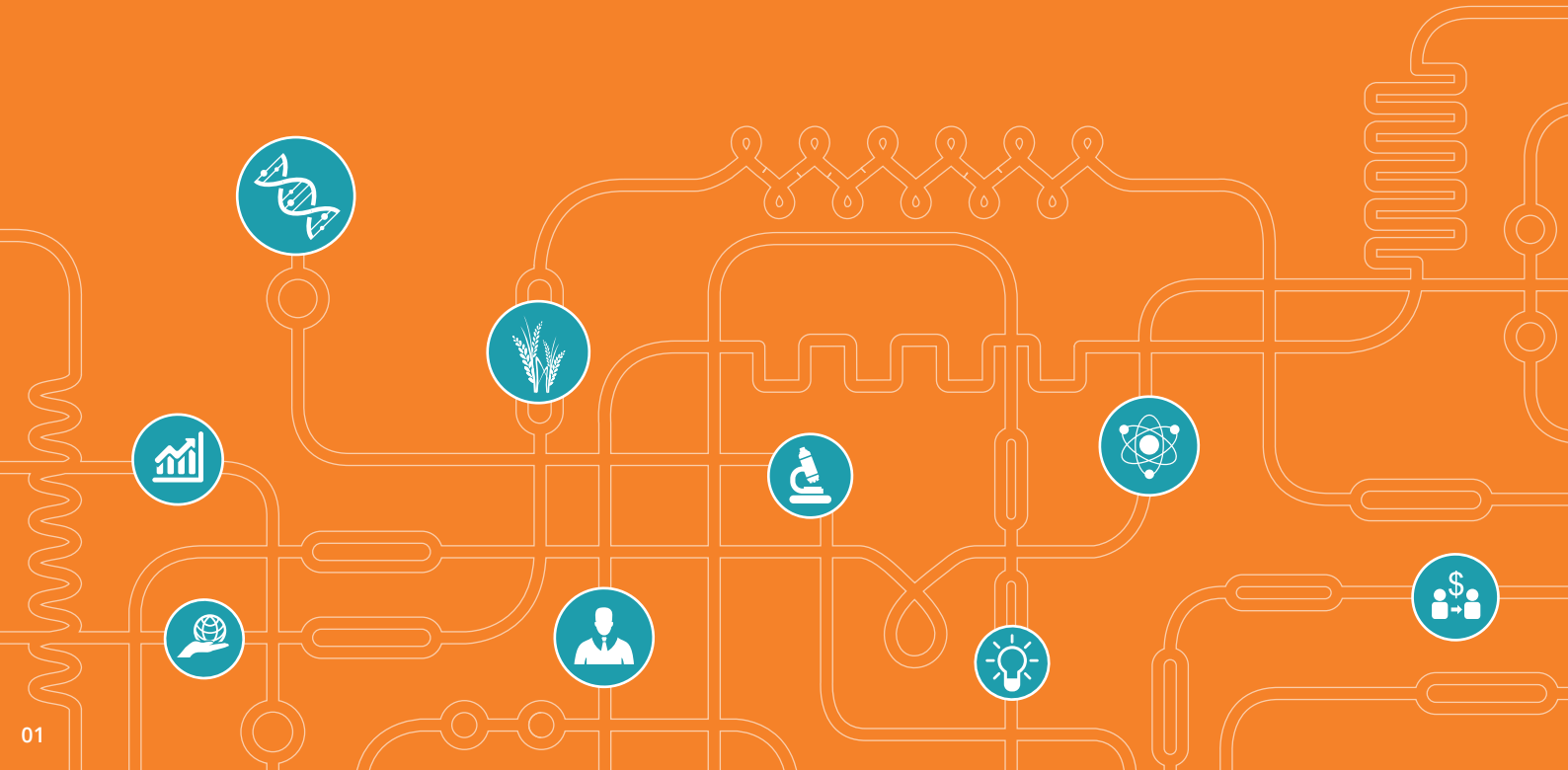




Enriching the Nation,
Securing the Future



WHAT IS BIOECONOMY?



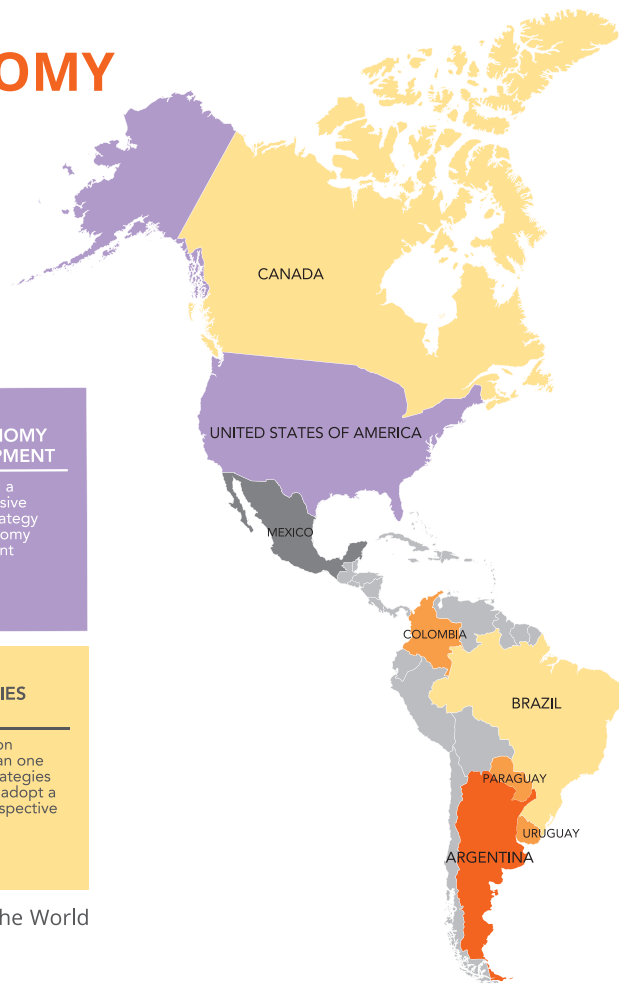
- Bioeconomy refers to all economic activity that is derived from the continued commercial application of biotechnology, encompassing the production of renewable biological resources and their conversion into food, feed, chemicals, energy and healthcare wellness products via innovative and efficient technologies.
- The vast socio-economic potential offered by bioeconomy has spurred countries such as United States, EU Countries, South Africa, China, Australia, Canada, Finland and Russia to launch bioeconomy initiatives or roadmaps that offers attractive incentives, promising programmes and significant investments to boost the bioeconomy sector.
- Bioeconomy is a major economic contributor to the Malaysian GDP, and impacts all sectors of economy that could possibly benefit from application of bio-based technology, such as agriculture, organic chemicals, and oil & fat processing.
- Recognising the significant growth proposition for the sector locally and globally, Malaysia has introduced the Bioeconomy Transformation Programme (BTP) as one of the implementation strategies under the Economic Transformation Programme (ETP).

GLOBAL BIOECONOMY

STRATEGIES FOR BIOECONOMY DEVELOPMENT

Focused Strategy:

GREEN ECONOMY <p>Renewable/ sustainable economy and environmental economy. Sustaining and advancing economic, environmental and social well-being</p>	BLUE ECONOMY <p>Development of sustainable marine and fisheries</p>	BIO-ENERGY <p>Renewable energy from biomass or organic matters to generate electricity or as biofuel</p>	HOLISTIC BIOECONOMY DEVELOPMENT <p>Developing a comprehensive national strategy on Bioeconomy development</p>
REGIONAL BIOECONOMY DEVELOPMENT <p>Specific initiatives and strategies in regional level</p>	BIOECONOMY RESEARCH & INNOVATION <p>Analysis and strategies on Bioeconomy issue as well as implementation on the research development</p>	HIGH-TECH <p>Biotech and converging technologies</p>	MIXED STRATEGIES <p>Combination of more than one focused strategies but do not adopt a holistic perspective</p>



Adapted from Bioeconomy Policy (Part II): Synopsis Strategy Around the World by German Bioeconomy Council (2015)



WHAT IS BIOECONOMY TRANSFORMATION PROGRAMME?

- Bioeconomy Transformation Programme (BTP) is a platform provided by the government for the private sector to channel and maximise commercial opportunities in bio-based industries.
- Through BTP, the government and leading industry players will work in tandem to set national goals for the application of biotechnology in agriculture production, industrial manufacturing and human health, put in place the structural conditions required and develop necessary mechanisms to ensure that policy can flexibly adapt to new opportunities.
- BTP is designed as a transformation programme based on biotechnology's potential to cut across various different industries and transform Malaysia into a high income, inclusive and sustainable economy.
- BTP has been endorsed by Malaysia's National Bioeconomy Council and launched by the Honourable Prime Minister of Malaysia on 30 October 2012.
- BTP will promote a knowledge based bioeconomy through the establishment of a sustainable ecosystem of R&D and commercialisation in the areas of agriculture, healthcare and industrial biotechnology.
- In addition to the bio-based industry, BTP also focuses on other industries and economic sectors that produce, manage and utilise biological resources, including agriculture, forestry, fisheries, food production, healthcare, chemicals and renewable energy.
- BTP's vision is to develop Malaysia as a global high income bioeconomy by 2020 and is a continuation of the implementation of strategies outlined in the National Biotechnology Policy.
- It also includes participation of industry players and peripheral companies that support the development of the local bio-based industry.

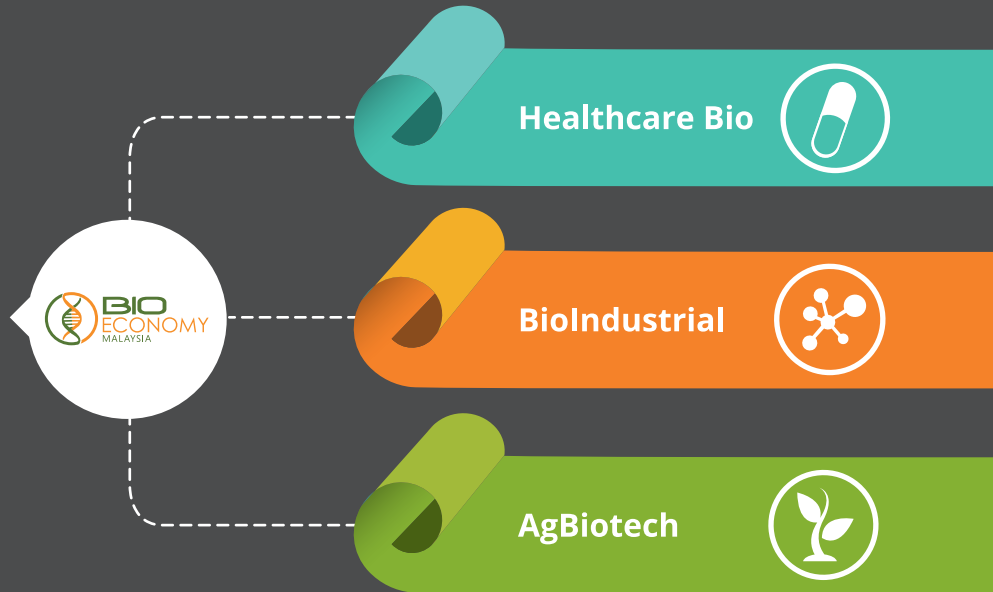
OUR VISION:

Enriching the Nation, Securing the Future

2020



A Global High
Income Bioeconomy



Bioeconomy benefits the society and nation through breakthroughs in agricultural productivity, discoveries in healthcare and the adoption of sustainable industrial processes, having the effect of both enriching our society and nation through wealth creation besides securing our future.

MALAYSIA'S NATIONAL TRANSFORMATION POLICY

ECONOMIC TRANSFORMATION PROGRAMME

DIGITAL TRANSFORMATION PROGRAMME



BIOECONOMY TRANSFORMATION PROGRAMME



CREATING ECONOMIC VALUE THROUGH BIOECONOMY TRANSFORMATION PROGRAMME

- BTP aims to increase Malaysia's Gross National Income (GNI) and total investments in 2020 by further enhancing the domestic biotechnology and bio-based industries, while also creating new job opportunities for Malaysians, thus enabling Malaysia to become a high income nation by year 2020.
- In addition, BTP will also promote “Green” Economy by contributing towards Malaysia's target of 40% reduction in carbon footprint and emissions, and improving the health and well-being of the people through reduced healthcare treatment costs, early disease detection and cheaper, accessible medicines.
- BTP is capturing the nation's economic potential and contribution by amplifying bio-based technology via enhancement of productivity, yield and quality of outputs, and successively creating a ripple effect throughout the entire supply chain with the development of the upstream sectors.

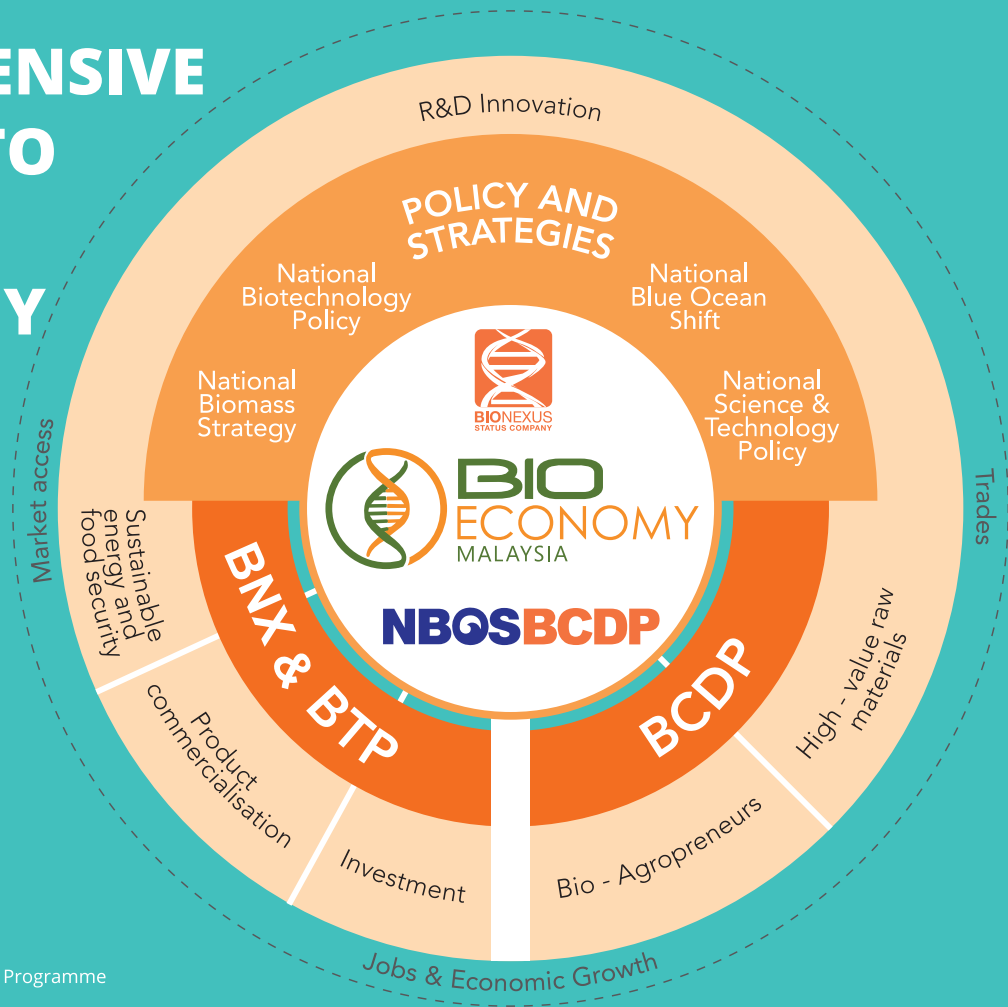


A COMPREHENSIVE APPROACH TO MALAYSIAN BIOECONOMY

How bioeconomy ties the whole process of creating market access, increasing trades and providing jobs and economic growth.

BNX = BioNexus Status

BCDP = Bioeconomy Community Development Programme

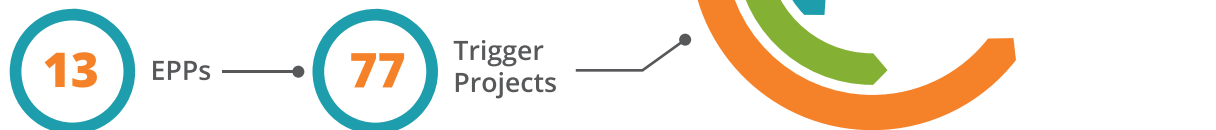


CURRENT ENTRY POINT PROJECTS (EPPs) & TRIGGER PROJECTS (As of December 2017)

BioIndustrial	
Industrial Bio Inputs	17 trigger projects
Bio-based Chemicals	9 trigger projects
Biomaterials	6 trigger projects
Bioremediation	3 trigger projects

AgBiotech	
Bio-based Farm Inputs	7 trigger projects
High Value Bioingredients	9 trigger projects
High Value Food Varieties	16 trigger projects
High Value Horticulture Inputs	2 trigger projects

Healthcare Bio	
Biopharmaceuticals	3 trigger projects
Medical Device	1 trigger project
Molecular Screening	2 trigger projects
Stem Cells & Regenerative Medicine	1 trigger project
Bio-based Materials	1 trigger project



BIOECONOMY TRANSFORMATION PROGRAMME'S FOCUS AREAS

AgBiotech



**TROPICAL
AGRO-BIOTECHNOLOGY**

Healthcare Bio



**INNOVATIVE HEALTHCARE
PRODUCTS & SERVICES**

BioIndustrial



**RENEWABLE
BIO-RESOURCES**

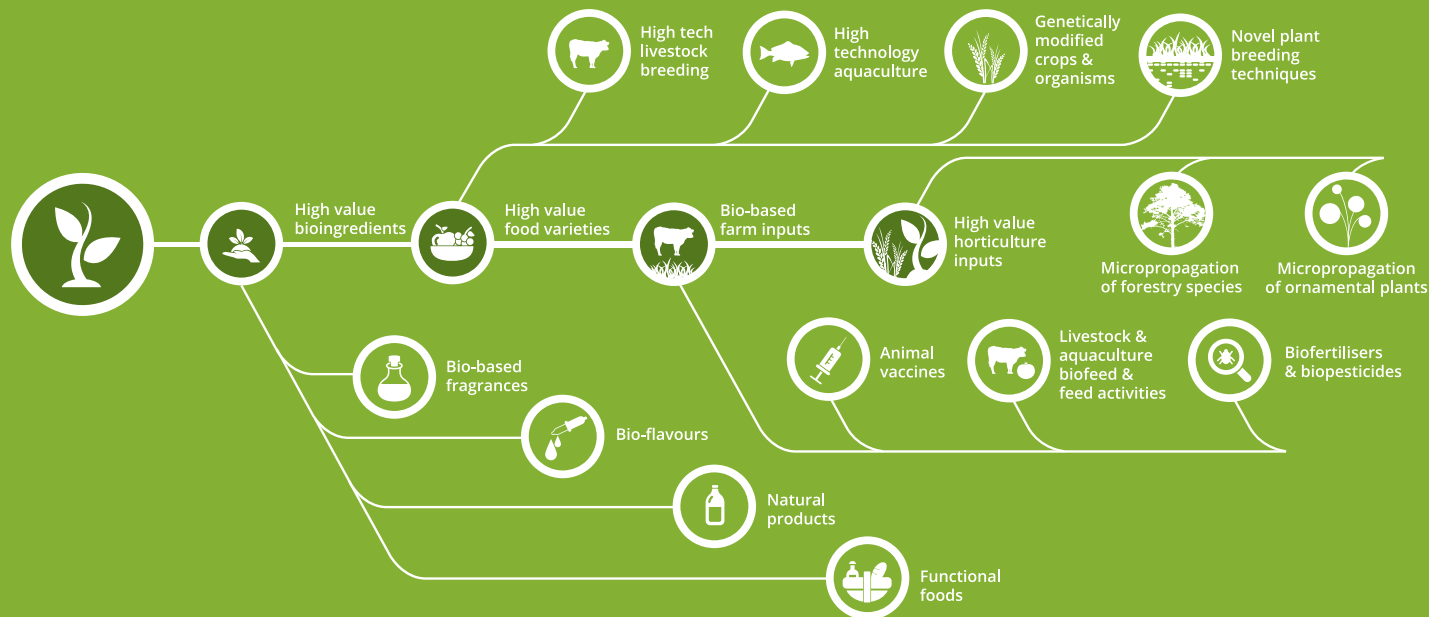
AgBiotech

GNI: RM 2.70 BILLION

EMPLOYMENT: 14,913

INVESTMENT: RM 4.89 BILLION

(As of December 2017)

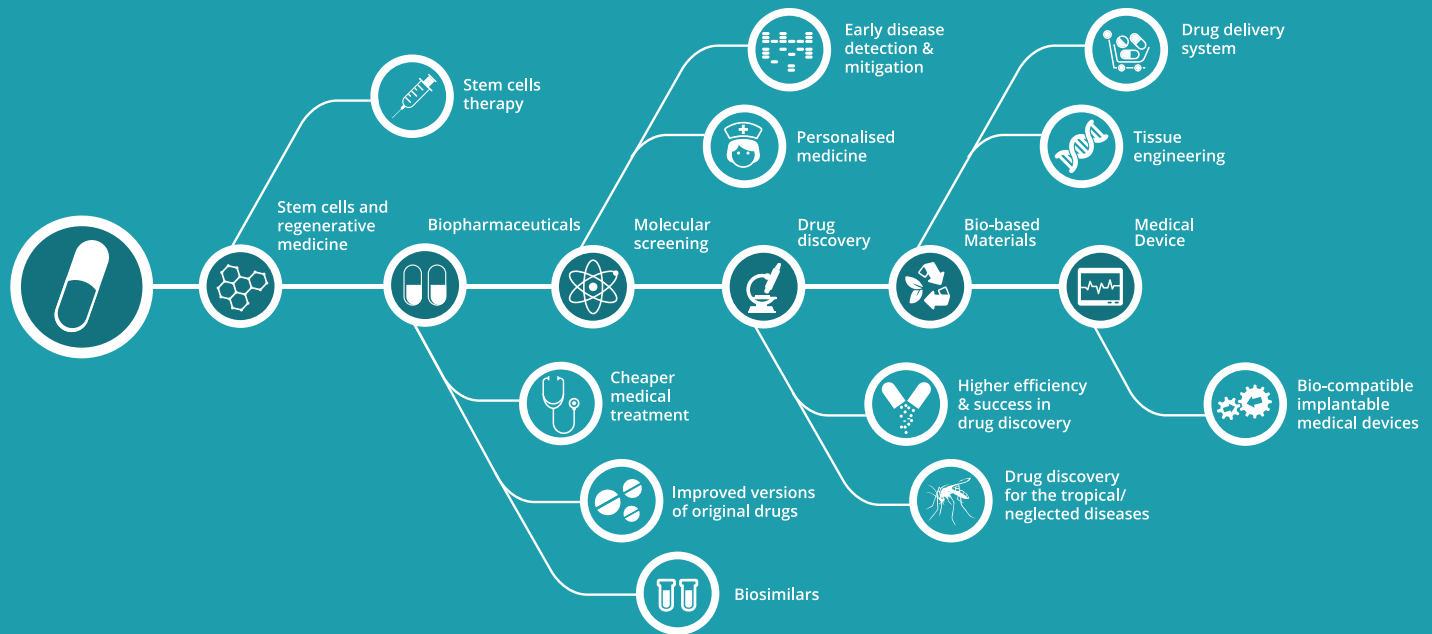


Healthcare Bio

GNI: RM 0.54 BILLION

EMPLOYMENT: 2,159

INVESTMENT: RM 1.20 BILLION *(As of December 2017)*

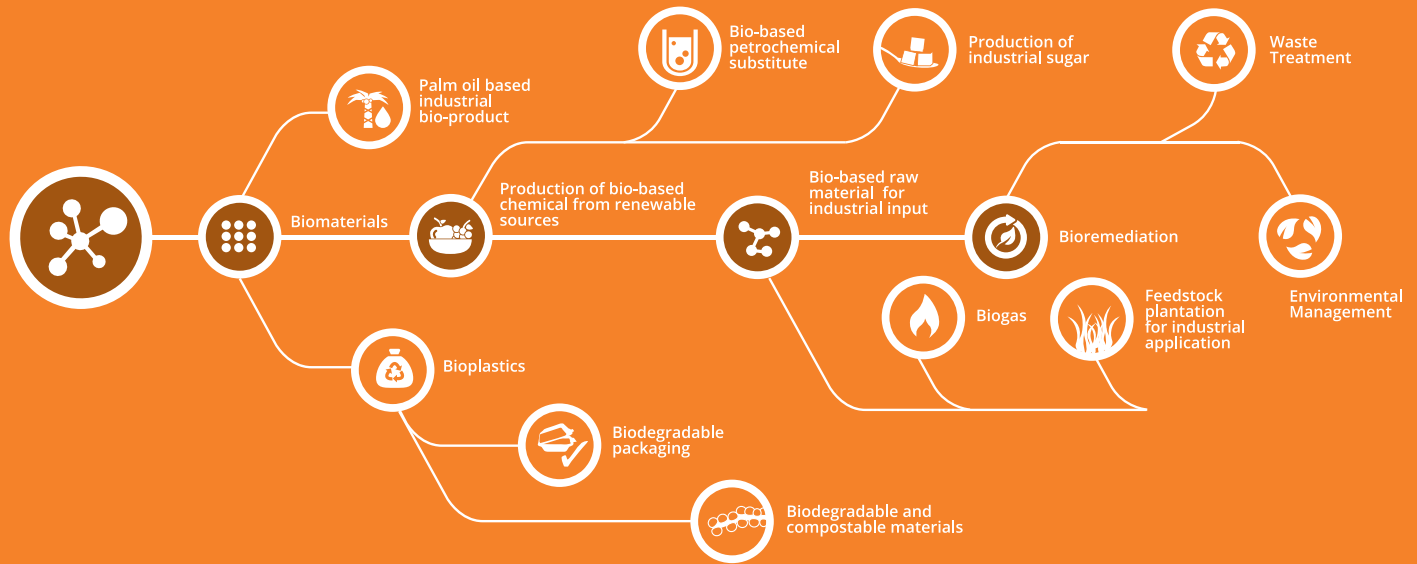


BioIndustrial

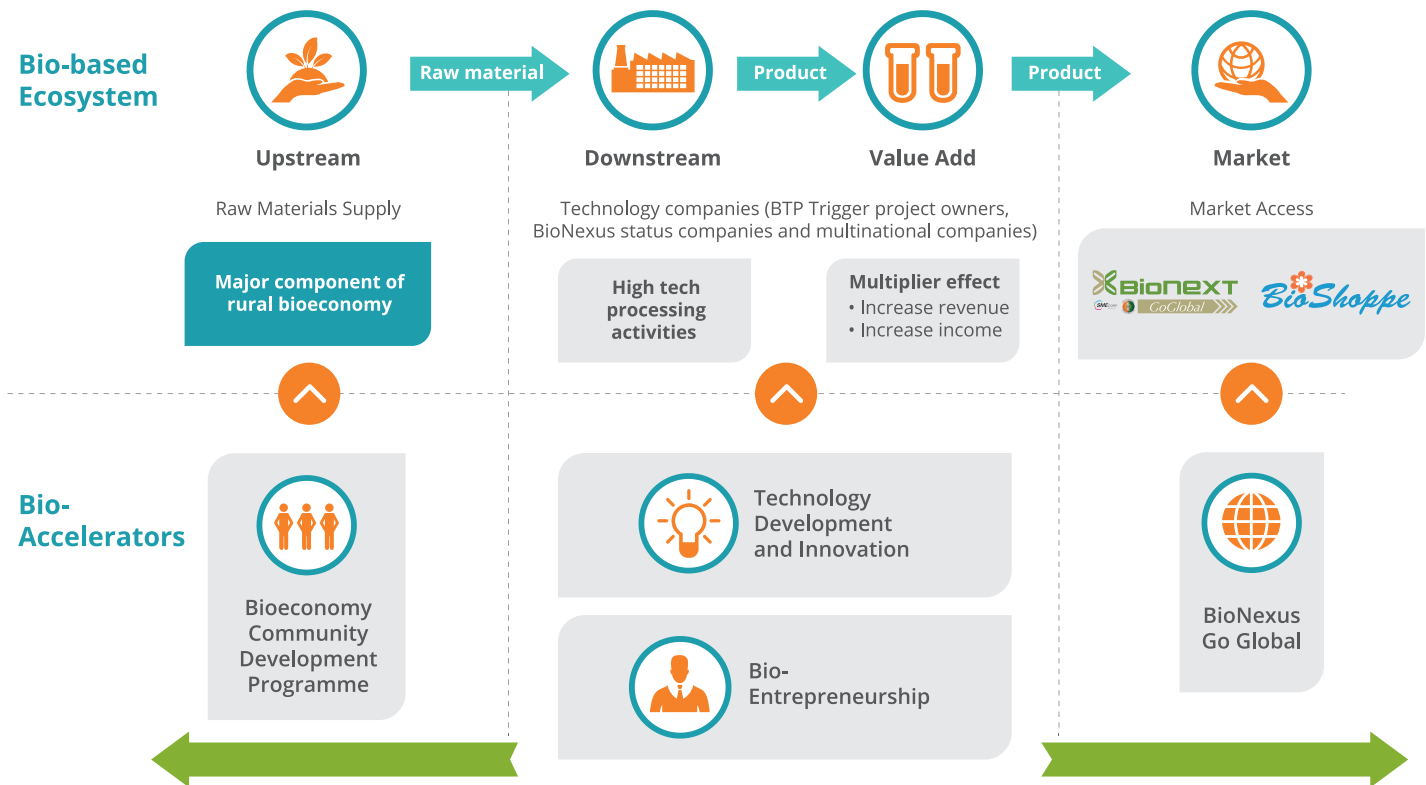
GNI: RM 2.45 BILLION

EMPLOYMENT: 9,659

INVESTMENT: RM 11.11 BILLION (As of December 2017)



BIOECONOMY MALAYSIA ACCELERATOR PROGRAMMES (BIO-ACCELERATORS)



5 BENEFITS OF THE BIOECONOMY TRANSFORMATION PROGRAMME



BIO-ACCELERATORS

Opportunity to **participate in the Bioeconomy Malaysia Accelerator Programmes (Bio-Accelerators)** including Bioeconomy Community Development Programme, Technology Development & Innovation, BioNexus Go Global and Bio-Entrepreneurship to enhance and accelerate the growth of bio-based businesses.

MARKET ACCESS

Opportunity to **expand market access** via Bioeconomy Corp collaboration with the economic corridors and State development agencies to initiate collaborative bioeconomy clusters for wealth creation and sharing the benefits of Bioeconomy throughout the country by expanding existing value chains and creating new ones.

FUNDING ACCESS

Private Sector can **access the BTP Fund and Biotechnology Commercialisation Fund 2.0 (BCF 2.0) to part-finance the commercialisation and expansion of their business**, and be connected to alternative financing options from various agencies.

GOVERNMENT SUPPORT

Direct **assistance and endorsement from the Government, represented by the relevant ministries**, with continuous facilitation and advisory support through Bioeconomy Corp which acts as the BTP Secretariat and Implementing Agency.

NATIONAL VISIBILITY

Opportunity for the private sector to participate in a key Government agenda, achieving visibility among important stakeholders in the public sector, investment community, and ordinary Malaysians. As a contributor to the nation's Bioeconomy Initiatives, **participants benefit from being a part of Malaysia's greater Economic Transformation Programme (ETP).**

HOW TO APPLY

You may submit your online application at www.bioeconomycorporation.my

BTP Eligibility Criteria

- 1) Investment from private sector – project should be led by one or more private companies to transform Malaysia into a private sector driven economy
- 2) Bio-based technology – project should involve the application of innovative and efficient technology to add value to bio-based resources
- 3) Commercial readiness – project should have key details like financing, location and technology secured to enable immediate implementation
- 4) Socio-economic impact – project should generate significant impact through gross national income, investment, job creation, or other means

Access to

BTP Fund

- Soft loan facility at 5% interest rate
- 10% of the total project cost or up to RM10 million (whichever is lower)

Biotechnology Commercialisation Fund 2.0 (BCF 2.0)

- Soft loan facility at 5% interest rate
- 2 funding schemes:
 - i. **Bioeconomy Development Scheme**
 - Funding for business expansion
 - Up to RM3 million
 - ii. **Business Sustenance Scheme**
 - Funding for working capital
 - Up to RM600,000

Further inquiries regarding BTP, you may contact us at:

03-2116 5588 or email at bioeconomy@bioeconomycorporation.my



**Bioeconomy Transformation
Programme**



**Ministry of Science,
Technology and Innovation**

Lead Ministry



**Malaysian Bioeconomy
Development Corporation**

Implementation Agency

Enriching the Nation, Securing the Future



MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION (MOSTI)

Block C4 & C5, Complex C, Federal Government Administrative Centre, 62662 Putrajaya, Malaysia.

Tel : +603 8000 8000 | Fax : +603 8888 9070

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