



Enriching the Nation,
Securing the Future

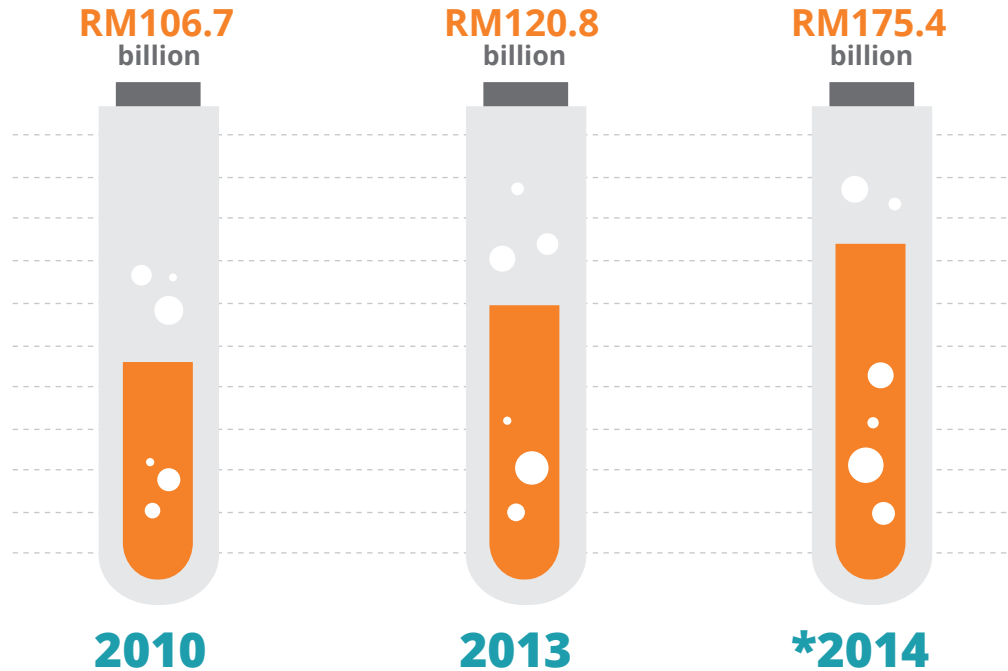


WHAT IS BIOECONOMY?



- 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.
- As of 2014, bioeconomy as a whole contributed up to 15.8% of the total Malaysian GDP, a contribution equivalent to RM175.4 billion. This value encompasses economic impact from all sectors of economy that could possibly benefit from application of bio-based technology, like agriculture, chemical production, and oil & fat processing.
- The bioeconomy is envisaged to grow higher in the coming years. At a stimulated 15% yearly growth, the size of the bioeconomy can grow to RM181.2 billion in 2030.
- 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).

GROSS DOMESTIC PRODUCT (GDP) CONTRIBUTION OF BIOECONOMY



**calculation using GDP number rebased to 2010 prices from 2005 prices as provided by Department of Statistics Malaysia*

EMERGING TREND:

Countries establishing Bioeconomy Initiatives/ Roadmap



Bioeconomy to contribute a global average of **2.7% to GDP by 2030** (OECD estimates)

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



BioMedical



BioIndustrial



AgBiotech



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 is estimated to increase Malaysia's Gross National Income (GNI) of up to RM48 billion in 2020, with a total investment of RM50 billion and creation of 170,000 new job opportunities, 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.



BIOECONOMY TRANSFORMATION PROGRAMME OUTCOME

GNI in
2020



RM 48 Billion

Job Opportunities
by 2020



170,000

Investments
by 2020



RM 50 Billion

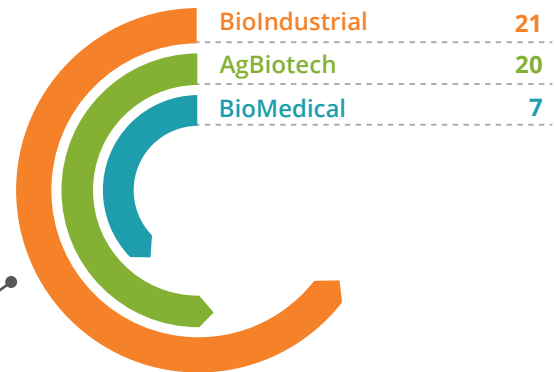


CURRENT ENTRY POINT PROJECTS (EPPs) & TRIGGER PROJECTS (As of December 2015)

BioIndustrial	
Industrial Bio Inputs	8 trigger projects
Bio-based Chemicals	7 trigger projects
Biomaterials	5 trigger projects
Bioremediation	1 trigger project

BioMedical	
Biopharmaceuticals	3 trigger projects
Drug Discovery & Preclinical Services	1 trigger project
Molecular Screening	2 trigger projects
Stem Cells & Regenerative Medicine	1 trigger project

AgBiotech	
Bio-based Farm Inputs	3 trigger projects
High Value Bioingredients	7 trigger projects
High Value Food Varieties	10 trigger projects



BIOECONOMY TRANSFORMATION PROGRAMME'S FOCUS AREAS

AgBiotech



**TROPICAL
AGRO-BIOTECHNOLOGY**

BioMedical



**INNOVATIVE HEALTHCARE
PRODUCTS & SERVICES**

BioIndustrial

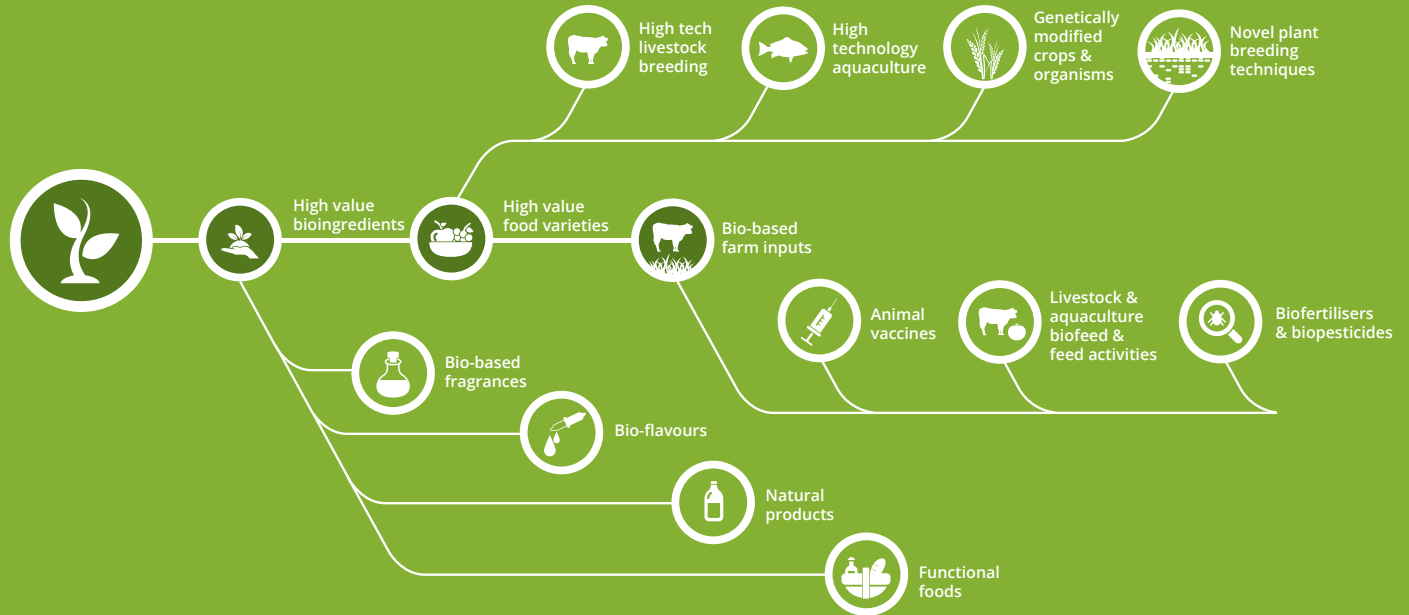


**RENEWABLE
BIO-RESOURCES**

AgBiotech

GNI: RM 2.43 BILLION
EMPLOYMENT: 12,883
INVESTMENT: RM 4.63 BILLION

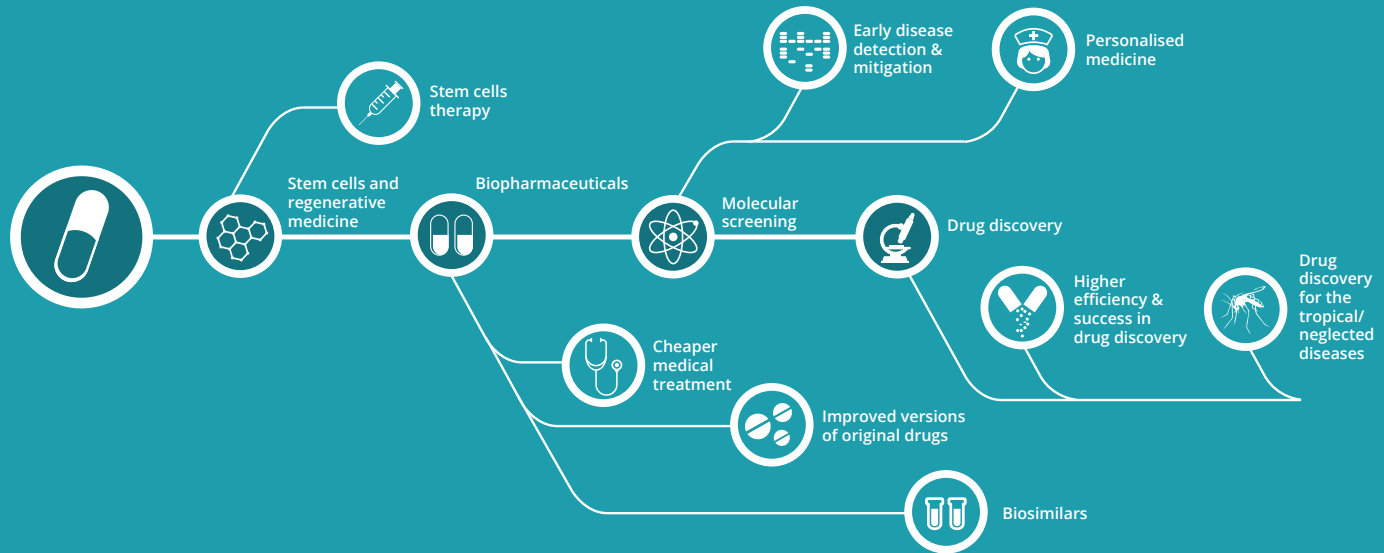
(As of December 2015)



BioMedical

GNI: RM 0.79 BILLION
EMPLOYMENT: 2,611
INVESTMENT: RM 1.33 BILLION

(As of December 2015)



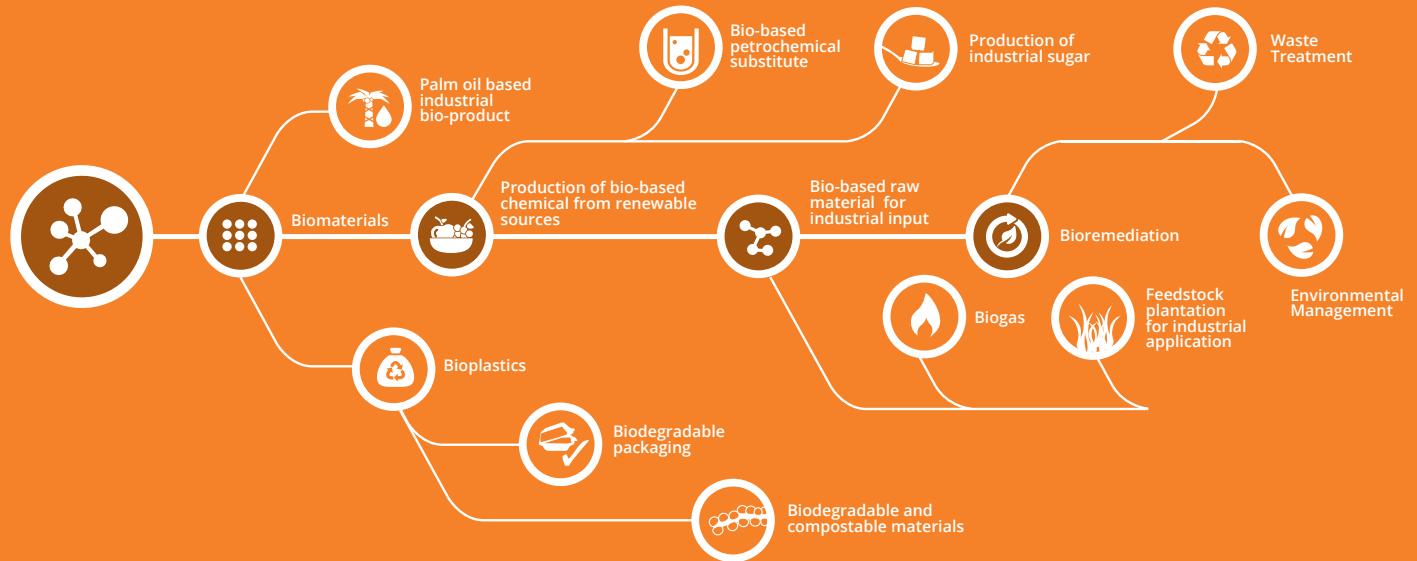
BioIndustrial

GNI: RM 2.75 BILLION

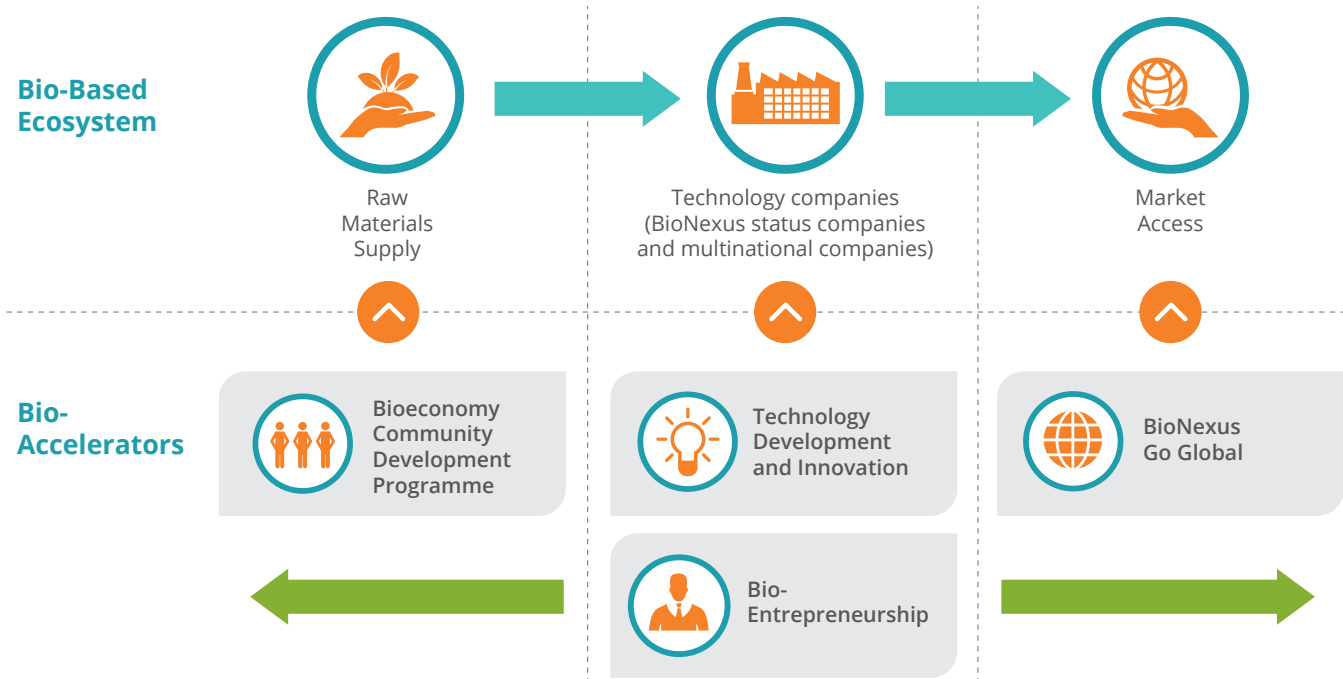
EMPLOYMENT: 9,861

INVESTMENT: RM 12.25 BILLION

(As of December 2015)



BIOECONOMY MALAYSIA ACCELERATOR PROGRAMMES (BIO-ACCELERATORS)



5 BENEFITS OF THE BIOECONOMY TRANSFORMATION PROGRAMME



HOW TO APPLY

You may submit your online application at www.bioeconomy.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

BTP Fund Eligibility Criteria

- 1) Projects undertaking, or will undertake activities in bioeconomy sector, with emphasis on application of bio-based technologies to add value to biological resources
- 2) Private limited company incorporated in Malaysia
- 3) Minimum paid up capital of RM100,000
- 4) Minimum five (5) full-time employees
- 5) Minimum two (2) years operational experience

Further inquiries regarding BTP or BTP Fund, you may contact us at:

03-2116 5588 or email at bioeconomy@biotechcorp.com.my



Bioeconomy Transformation
Programme



Ministry of Science Technology
and Innovation

Lead Ministry



Malaysian Biotechnology
Corporation

Implementation Agency

Enriching the Nation, Securing the Future



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