

## About BioInnovate Africa Programme

The Bioresources Innovations Network for Eastern Africa Development (BioInnovate Africa) Programme is a regional initiative established in 2010 with support from the Swedish International Development Cooperation Agency (Sida). The second phase of the programme began in November 2016 and will run till November 2021.

[BioInnovate Africa Programme](#) fosters the development of an innovation-driven bio-economy in eastern Africa, using scientific research and knowledge to add value to renewable bio-resources through the conversion of bio-based research ideas and technologies into innovations that improve people's lives. In the long term, this will create new economic opportunities and social sustainability.

The Programme cooperates with the New Partnership for Africa's Development (NEPAD) Planning and Coordinating Agency, councils, commissions and ministries of science, technology and innovation in eastern Africa and other actors in the bioscience innovation ecosystem, to contribute to regional, continental and global development agendas of ensuring food and nutrition security and creating wealth through innovation.

While funding bio-based innovation projects remains the core activity for the programme, BioInnovate Africa's strategy now includes developing a knowledge-based bioeconomy in eastern Africa. This is built on the premise that collaboration at national and regional level, and between researchers and private sector partners, is the surest way to translate scientific outputs into usable, and commercially scalable products and technologies.

The Programme is based at the [International Centre of Insect Physiology and Ecology \(icipe\)](#) in Nairobi, Kenya. Current BioInnovate Africa partner countries are: Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda.

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## Rwanda hosts the launch of the second phase of the BioInnovate Africa Programme



Participants of the BioInnovate Africa Programme launch in Kigali, Rwanda

The Land of a Thousand Hills played host to the launch of the second phase of the BioInnovate Africa Programme phase 2. This high - level forum was convened in partnership with icipe and the National Council for Science and Technology, Rwanda.

Africa's largest regional innovation-driven science initiative, officially marked entry into its second phase with three key highlights: increased funding from the Swedish International Development Cooperation Agency (Sida), call for a new round of proposals from eastern Africa scientists and innovators, and enhanced steps towards the creation of a bioeconomy strategy for the region.

Download the inception report [here](#)  
View pictures of the event [here](#)

## Taking action to increase women involvement in developing African bioinnovations

As part of BioInnovate Africa gender responsive strategy, a fellowship for women scientists was announced to the BioInnovate partner organisations in Eastern Africa. The goal of this fellowship is to increase the participation of women in bio-entrepreneurship and bio-innovation projects in eastern Africa, and contribute to the pool of women in the biophysical sciences. BioInnovate Africa's projects provide the resources, networks, and experiences necessary to advance the Fellows' skills, innovation capacity and overall career progression.

More than 50 applications were received and through a competitive process, 12 women scientists were selected to participate in the four month fellowship where they will be based in a partner organisation. The Fellowship will be officially launched during the BioInnovate Gender Integration Workshop in October 2018. This first cohort of women scientists will begin their fellowships later in the year.

## Sida invests \$11.0 million to advance the Eastern Africa bioeconomy

Twenty research teams from Ethiopia, Kenya, Rwanda, Uganda and Tanzania have received grants totalling about USD 1.0 million with the generous support of the Swedish International Development Cooperation Agency (Sida). The funded projects will focus on value addition of agricultural produce, bio-waste treatment and conversion, as well as industrial processes to minimise or eliminate environmental pollution, green chemicals, bioenergy and materials, biofertilizers, insect proteins and food and nutrition.

These project teams comprise of research teams and private sector companies, from different Eastern Africa countries and with diverse expertise to advance the conversion of biobased research ideas into beneficial innovations.

Read about the BioInnovate Africa Phase II projects [here](#)



*Project leaders from some of the BioInnovate Project teams during the BioInnovate Phase II Launch in Kigali, Rwanda*

## Linking the African bioeconomy to the global bioeconomy

The [Global Bioeconomy Summit 2018 \(GBS2018\)](#), a high-level event for policy discussion and networking organized by the German Bioeconomy Council, to discuss the latest developments and challenges in the global bioeconomy was held in Berlin, Germany in April 2018. BioInnovate Africa Programme Manager, Dr. Julius Ecuru, co-chaired one of the 14 expert workshops on the Bioeconomy of World regions (Africa), alongside Professors Jan Börner and Fabio Fava from the University Bonn, Germany, and the University of Bologna, Italy, respectively.



*Dr. Jan Janosch Forster from Bonn University, Germany, Dr. Julius Ecuru from BAP, and Dr. Paulus Mungeyi from Namibia Commission for Research, Science and Technology at the summit*

The workshop provided a new dialogue platform on collaboration opportunities and potential joint efforts for actors and programmes supporting bioeconomy analysis and capacity building in Africa such as the BioInnovate Africa Programme, the STRIVE programme (Center for Development Research, University of Bonn), the PRIMA Programme and the SEI Bioeconomy programme.

Dr. Ecuru of the BioInnovate Africa Programme, emphasised that, developing sustainable African bioeconomies has strategic advantage for the continent, which is considered the global centre of biological diversity. He further added, "BioInnovate Africa is leading efforts in eastern Africa to develop a knowledge-based bioeconomy to enable value addition to raw biological materials, improve resource efficiency, especially in manufacturing, and convert biological waste into more useful products, hence lowering CO<sub>2</sub> emissions."

Read about the BioInnovate Africa participation in the Global Bioeconomy Summit [here](#)

## University of Dar es Salaam recognises bionitrogen fertilizer team

The Bionitrogen fertilizer team recently took the First prize during the University of Dar es Salaam Research Week 2018 for their innovative organic fertilizer developed from fruit and vegetable urban waste. The entries were judged based on scientific content, clarity of the problem it solves and its potential for commercialization.

Waste management, mostly in urban areas, is a challenge to the municipal authorities mainly due to the increasing generation of waste. This project team comprising of research and business experts from Tanzania and Uganda is contributing to solving the waste management issue and in addition providing an organic and affordable fertilizer to improve the agricultural productivity of small holder farmers.

Read about the Bionitrogen fertilizer project [here](#)



*L- The Award from UDSM  
R - Members of the Bionitrogen fertilizer team at their production site*





## Deliberate collaboration between stakeholders vital ingredient to building sustainable innovation systems

BioInnovate Africa, in partnership with COSTECH (Tanzania Commission for Science and Technology), held a Policy Seminar in Dar es Salaam in July 2018. The objective of this seminar was to explore best practices in building innovation ecosystems that support growth and sustainable development in Tanzania, and Eastern Africa in general; and to identify opportunities for the public-sector interventions, and potential linkages with the BioInnovate Africa Programme. The participants comprised of policy experts, private firms, research organizations, media and donors from Tanzania and other Eastern Africa nations.



From the different collaborative deliberations, the key issues that emerged were:

- Research must have impact on the society creating positive change while producing high quality goods and services that solve local and global issues.
- The deliberate collaboration between the government, academia and industry is a key ingredient to the growth and sustainability of the STI landscape that promotes sustainable development in Africa.
- Business incubation centers are important actors in the innovation ecosystem and are the bridge between the industry and academia. They are vital in build the capacity of the university teams to move from a research idea to developing a product that can be commercialized.

*L: Hon. Jitu Soni, a Tanzanian parliamentarian, explains the importance of strategic collaboration between scientists and policy makers*

## Bringing together science and business for sustainable development

What happens when you bring together scientists and business people? Ideally, it would be expected that they would both be speaking different languages and promoting agendas that are miles apart. This was not so for the BioInnovate business boot camp that brought together experts from the academia and the private sector with the aim of linking biobased technologies to business and the market. To achieve this goal, the capacities of the partner institutions are developed to effectively translate innovative research ideas and technologies into useful goods and services for societal and economic impact.

The just ended [BioInnovate Business Boot Camp](#) provided the platform for the project partners (private companies and research organisations) to harmonise their project roles and responsibilities and in addition, to strengthen their capacities to effectively introduce their innovative goods and services to the market in a sustainable commercial way.

The three-day intensive interaction, through diverse individual and group activities, streamlined expectations from scientists and business leaders in implementation of their projects and made strides in strengthening the capacities of participating firms to commercialize their innovative products and services.

The project teams comprise of research organisations and private sector companies from different countries therefore, creating relationships, leveraging on each of the partner's strengths, having a common vision and regular communication are some of the best practices that will ensure the sustainability of the project and the commercialization of the innovative product or service.



*L: Participants of the BioInnovate boot camp R: Team Members of the Refractance Window project discuss their vision*



## Business incubation a means for effective business development

BioInnovate Africa Programme organised a [Business Incubation Model Development Workshop](#) in February 2018, in Nairobi, Kenya. The workshop was a platform for the business incubation project teams within BioInnovate, to strengthen their capacity for professional business incubation as one of the routes to commercialize their innovative biological-based technologies and/or products. During the workshop, these teams participated in developing a model BioInnovate Africa professional business incubation framework that will guide the business development process for their projects.



Participants of the Business Incubation Model Development workshop in Nairobi Kenya

Speaking at the event, Dr. Julius Ecuru, BioInnovate Programme Manager emphasized the need for business incubation as one of the effective means to link innovative ideas and the market, saying, "The communities we serve expect new enterprises, and thriving businesses, out of the many innovative ideas and technologies developed every day in our universities, research institutes and firms. Business incubation therefore, gives entrepreneurial scientists and innovators an opportunity to build businesses from their ideas and technologies."

Wilson Munene Karimi, Project Administrator at CoELIB, an incubator based at Egerton University in Kenya agrees that business incubation has a direct impact on youth employment and livelihood improvement, and is critical in entrepreneurship and business development. Munene says, "Throughout the business incubation process, we recognize that failure is important, because that is when gaps in the idea are realized, and refinement happens."

BioInnovate Africa Programme is currently supporting business incubation for four projects working on various technological products including substrate blocks for mushroom cultivation, novel food products from sorghum and millet, Striga resistant maize and millet, and an integrated batch reactor and constructed wetland system for treating high strength waste water and collecting by-products. These projects include scientists and innovators from Ethiopia, Kenya, Rwanda, Uganda and Tanzania, working collaboratively to create sustainable bio-based business opportunities.

## Improved bean varieties released in Tanzania

BioInnovate Africa Programme, recently participated in the Building Nutritious Food Baskets (BNFB) launch of new improved high-iron and Zinc beans varieties in Arusha, Tanzania on the invite of the Selian Agricultural Research Institute (SARI), a partner in the [Value-added Bean technologies Project](#) of the first phase of the BioInnovate Programme. In partnership with SARI and other regional partners, the programme developed and promoted integrated and efficient bean value chains for increased productivity, nutritional value, commercialization and competitiveness of beans in eastern Africa. The bean technologies project focused on the development and commercialization of market preferred canning bean varieties that are drought tolerant and disease resistance from available germplasm in the region.

The launch of these biofortified bean varieties, is an indication of the strides that have been made in making research and science relevant to the citizens. This comes at a time when there is high prevalence of anemia and malnutrition especially among children under five, adolescent girls and expectant mothers in Sub-Saharan Africa. In addition, over 200 million people in sub-Saharan Africa depend on the bean crop as primary staple food while millions of small holder farmers rely on the sale of beans for their household income. The launch was presided over by the Tanzania minister for Agriculture, Eng. Dr. Charles Tizeba.

BioInnovate has supported scientists from universities and national research organizations in Kenya, Rwanda, Ethiopia and Tanzania to produce nine new high yielding, disease and drought tolerant canning bean varieties that have been released in Kenya and Ethiopia and are being tested in Tanzania, Burundi and Rwanda.

### More information

[How BioInnovate is stimulating a Sustainable Canning Beans Innovation Platform](#)  
[Kenyan scientists release five new canning bean varieties after sixty-year wait](#)

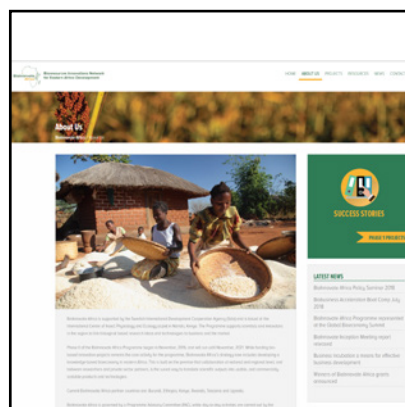
## BioInnovate Africa Programme now online

The BioInnovate Africa website is now up and running! This is your one-stop shop of all the information on the diverse projects across the six Eastern Africa countries.

Daily and weekly updates are posted on the programme

Twitter [@BioInnovate](#)

Website <https://bioinnovate-africa.org/>



### Upcoming Events

October 2018: BioInnovate Africa Gender Integration Workshop - Addis Ababa, Ethiopia

BioInnovate Africa Programme is supported by the Swedish International Development Cooperation Agency (Sida) and is based at the International Centre of Insect Physiology and Ecology (icipe) in Nairobi, Kenya.

