GLOBAL BIOECONOMY SUMMIT COMES TO AFRICA

Dr Abdou Tenkouano
Director General, *icipe*

We believe that the coming of the Global Bioeconomy Summit to Africa is timely, as it is necessary.

This year, the Global Bioeconomy Summit (GBS), will be held in Nairobi, Kenya, marking the first time that the event is convened outside Europe. Scheduled for 23 – 24 October, the planning of the GBS 2024 is supported by the International Advisory Council on Global Bioeconomy (IACGB). *icipe*, through BioInnovate Africa Programme, is honoured to co-host the Summit, alongside the East African Science and Technology Commission (EASTECO), and the Stockholm Environment Institute (SEI).

Started in 2015, the GBS series brings together experts and stakeholders from all hemispheres and backgrounds, representing the interdisciplinary and diverse features of the bioeconomy. The forum fosters dialogue between actors to promote sharing of best practices and to identify opportunities for global innovation and collaboration.

What is the Bioeconomy?

"The production, use, conservation and regeneration of biological resources to provide sustainable solutions (including information, products, processes and services) in and across all economic sectors" - IACGB

"The use of scientific knowledge to add social and economic value to biological resources in a sustainable way" - icipe

Across the world, the ideal of bioeconomy is rapidly emerging as a growth pathway. No matter the definition, it is clear that bioeconomy can enable us to make the most of natural resources, thus creating a better ecosystem to address some of the world's biggest challenges. These obstacles include food and nutritional security, climate change, job creation, health, renewable energy and environmental resilience. It is also evident that, to gain a competitive advantage, countries and regions must harness the potential of a bioeconomy early. Also, to derive optimum societal and global value from the bioeconomy, partnerships are necessary across scientific disciplines, countries, regions and the globe.

Against this background, Africa must take a central place in the bioeconomy. The continent has an edge due to its rich biodiversity – one of the most diverse on Earth, which includes a wide array of ecosystems, species and genetic resources. In addition, Africa has 60% of the global arable land; a large and highly talented youth demography (70% of the entire polutation); and a good labour market.

Indeed, the ReSAKSS 2024 Annual Trends and Outlook Report (ATOR), titled 'Advancing the Climate and Bioeconomy Agenda in Africa for Resilient and Sustainable Agrifood Systems', calls for unity among African leaders, policymakers and global partners, to leverage Africa's vast renewable biological resources. This approach will drive innovation, upscale investments in new technologies, and support upskilling to drive a bioeconomy transition while adapting to climate change.

Adopting a bioeconomy development model requires various components such as scientific and technical capacity to produce and harness biosciences knowledge, generation of technologies and bioinnovations, transfer and uptake.

These elements will lead to stronger innovation ecosystems in Africa, unlocking gender responsive opportunities for all sections of society.

icipe CONTRIBUTION TO THE BIOECONOMY IN AFRICA

The vision of a bioeconomy in Africa is one that we at *icipe* embrace and support. We are helping to tackle crop pests and disease vectors, poor soils and climate change, through knowledge-led, nature-based, climate-smart solutions. These innovations consist of renewable resources: use of organisms like predators and parasitoids; biopesticides and botanicals; bait sprays; and naturally-derived attractants and repellents.

Our flagships include agroecological innovations such as the push-pull technology, which exploits insect-plant, insect-insect interactions, and is being integrated with black soldier fly farming, to create resilient, circular and regenerative mixed cereal-livestock systems. We are also developing a banana fibre paper technology to control nematodes and other soil dwelling crops. Also, *icipe* helps to conserve, protect, exploit and regenerate Africa's insect biodiversity. We are designing inclusive value chains for high-quality honeybee and stingless bee, honey and hive products.

These initiatives are supported by certifications for organic honey, fair trade and geographical indication. We are also integrating bee ecosystem services (like pollination) into agricultural systems. Additionally, *icipe* has created vibrant silk farming value chains that are producing authentic African inspired fabrics, and value-added products for food and nutritional security, health, food systems and renewable energy. *icipe*'s research activities promote equality of opportunity and outcomes for women, men and the youth, through engendered pathways of technology development and adoption; capacity development; and policy influence.

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The *icipe* insects for food, feed and other uses programme is a stand-out example of our bioeconomy contribution. We are leading the way in translating the reality of insects to reshape the food system into a more sustainable and vibrant circular economy. Our innovations include use of insects for food-food biofortification; as alternative, more affordable, nutritious protein, healthier options for animal feed, thus unlocking the potential of the livestock, fish and poultry; effective recycling of organic wastes into high-value organic fertilisers that improve soil health and crop productivity, and help to control pests; and as a source pharmaceuticals (including antibiotics), cooking and cosmetic oils.

icipe's most explicit contribution to the bioeconomy is through the management of BioInnovate Africa Programme. Supported by the Swedish International Development Cooperation Agency (Sida), this is one of the largest regional bioscience research and innovation-driven initiatives in the continent.

BioInnovate Africa has partnerships with over 1,000 scientists and innovators in 200 organisations in eight countries: Burundi, Ethiopia, Democratic Republic of the Congo (DRC), Kenya, Rwanda, South Sudan, Tanzania and Uganda. A total of 25 innovation projects have been supported, with 17 products successfully tested, validated and launched in the market.

Moreover, BioInnovate Africa helped to develop the eastern Africa Regional Bioeconomy Strategy, the only such plan of its kind in Africa, and the second globally, after the European Union.

The Programme offers valuable lessons in tackling key constraints in innovation systems, and is highly regarded across Africa, and indeed in the world, as a leader in mainstreaming biosciences as a sustainable pathway for development.

WHAT TO EXPECT

The GBS 2024 will emphasise resilient and sustainable food systems, bioeconomy as a key model for sustainable transition to less fossil dependent economies, conservation of biodiversity, and using innovation as a driver for new economic opportunities, especially jobs for the youth.

We will showcase accomplishments from across the world, and the traction and momentum of bioeconomy across the world.

The Summit will provide a platform to discuss global bioeconomy issues in an inclusive manner; foster communication and understanding of global bioeconomy; integrate bioeconomy issues in global discussions on innovation, climate, biodiversity and achieving the UN Sustainable Development Goals (SDGs); and provide guidelines and recommendations for the way forward.