



## **TERMS OF REFERENCE**

### **A PRIVATE FIRM TO DESIGN AND DELIVER A BIOSCIENCE BOOTCAMP FOR SCIENTISTS FROM EASTERN AND CENTRAL AFRICA**

#### **1. BACKGROUND**

The Bioresources Innovations Network for Eastern Africa Development (BioInnovate Africa) Programme is a regional innovation-driven bioeconomy initiative established in 2010 with support from the Swedish International Development Cooperation Agency (Sida). It is implemented by the International Centre of Insect Physiology and Ecology (*icipe*), and operates in Burundi, Ethiopia, Kenya, Rwanda, Tanzania, Uganda, and involves partners in South Sudan as well. BioInnovate Africa (BA) assists countries in eastern Africa to build sustainable bioeconomies based on revolutionary advances in bioscience and bioengineering, thereby diversifying sources of growth for the region's population. The Programme's thematic areas are: a) value addition to agro-produce; b) agro-waste/biowaste conversion; and c) bioeconomy policy analysis.

The Biosciences eastern and central Africa – International Livestock Research Institute (BecA-ILRI) hub is a shared agricultural research and biosciences platform cocreated by ILRI and the African Union/New Partnership for Africa's Development (AU/NEPAD) under the African Biosciences Initiative. The hub serves 18 countries in the eastern and central Africa (ECA). With support from Sida, the hub mobilizes bioscience for Africa's development, through demand driven research, capacity building and providing access to state of the art biosciences research facilities to scientists addressing challenges of African agriculture. In addition BecA-ILRI hub is involved in product incubation to be conducted by scientists in Africa and for Africa. All research projects implemented at the hub are directed towards delivering products to help improve food and nutritional security in Africa.

BA and BecA-ILRI hub have a shared objective to strengthen the capacity of scientists (and innovators) in the region's universities, research institutes and private firms to link biobased ideas, inventions and technologies with society by creating business opportunities, among others. Such links do not only enable translation of research outputs to innovations (goods and services for societal use), but also expands opportunities to create jobs, increase household incomes and reduce poverty in a sustainable way.

*icipe* intends to hire the services of a private firm to assist BA Programme Management Office (PMO) in collaboration with BecA-ILRI hub to design and deliver a 5 days bioscience bootcamp involving early-to-mid career scientists based at universities, research organizations and firms within and beyond the networks of BA and BecA-ILRI hub. The aim of the bioscience bootcamp is to enable scientists to prepare and/or package their innovative and commercially viable

biological based ideas and research outputs for potential investments. Qualifying teams will gain skills and improve their capacity to develop competitive proposals in response to BA or other similar calls for innovation projects.

## **2. OBJECTIVE OF ASSIGNMENT**

The objectives of the assignment are to:

- i. design a bioscience bootcamp for scientists in eastern and central Africa.
- ii. deliver the bioscience bootcamp.
- iii. link participating teams in the bootcamp to investment opportunities.

## **3. SCOPE OF ASSIGNMENT**

The assignment shall be limited to early-to-mid career scientists competitively selected from universities, research organizations and firms within eastern and central Africa. Scientists from the following countries will be eligible to apply for the bootcamp: Burundi, Cameroon, Central Africa Republic, Congo Brazzaville, Democratic Republic of Congo, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Kenya, Madagascar, Rwanda, Sao Tome and Principe, Somalia, South Sudan, Sudan, Tanzania, Uganda.

## **4. DESCRIPTION OF ASSIGNMENT**

### **a. Design the bootcamp**

This involves preparing a concept note (not more than 5 pages) that includes the design of the bootcamp, and overall plan for its execution.

### **b. Prepare a call for applications**

This involves preparing a detailed call that highlights the objectives, application process, eligibility requirements and selection criteria for applicants to the bioscience bootcamp. The thematic areas for the call shall emphasize ‘green and sustainable’ solutions, which include but may not necessarily be limited to the following: agroecology, food and feed, biofertilizers, biopesticides, waste water treatment, biopharmaceuticals and cosmetics, bioenergy, biomaterials, diagnostics, and green chemicals (biocatalysts). The call shall be widely published for a period of 1-2 months, and should reach the target group in the participating countries. The BA online system will be used for receiving and processing the applications.

### **c. Selection of participants**

This will involve selecting participants for the bootcamp based on criteria and guidelines approved by BA and BecA-ILRI hub. The private firm, in consultation with BA PMO and BecA-ILRI hub Scientists, shall prepare a list of independent panelists who will review submissions and select finalists for the bootcamp.

### **d. Execute the bootcamp**

This will involve running bootcamp activities, including providing pre-bootcamp support and mentorship. It will entail a practical, experiential, participatory and knowledge-enhancing 5 days’ event to conceptualize and articulate solutions to specific societal needs, and having prospects for

creating new biobased businesses. The scientists who will be selected for the bootcamp are expected to have ideas, inventions or technologies they would wish to turn into practical use for societal benefit; therefore, the bioscience bootcamp may be structured as a practical event to include, but not limiting to the following activities:

- i. Ideation and prototyping (key elements in design thinking)
- ii. Customer identification
- iii. Customer journey mapping
- iv. Customer value proposition
- v. Market segmentation
- vi. Commercialization pathways (Go-to-market strategies)
- vii. Investor Pitch decks

Winning teams from the bootcamp may be announced and awarded a prize during the 2<sup>nd</sup> Regional Bioeconomy Conference scheduled in November 2021 and co-organized by BA, BecA-ILRI hub, East African Science and Technology Commission (EASTECO), Stockholm Environment Institute (SEI) – Africa center and other partners.

## **5. RESPONSIBILITIES**

### **a. *icipe/BioInnovate Africa***

- i. Provide guidance on the call and selection processes.
- ii. Provide a suitable venue, prepare invitations, travel, accommodation and meals for participants.
- iii. Facilitate travel logistics for the consultant (if any) to the workshop venue.
- iv. Provide workshop materials such as projector, writing board with markers, and any other basic stationery required for the assignment.
- v. Prepare the award prize for winning teams from the bootcamp.

### **b. Private firm**

- i. Prepare a concept note for the bootcamp.
- ii. Prepare and disseminate the call for applications.
- iii. Manage the call and selection processes.
- iv. Develop a detailed program and content for the bootcamp.
- v. Facilitate the bootcamp.
- vi. Recommend relevant potential investors outside of BA and BecA-ILRI hub network that may be invited during the bootcamp and the 2<sup>nd</sup> Bioeconomy conference.
- vii. Prepare a final report of the assignment.

## **6. QUALIFICATIONS AND EXPERIENCE**

The private firm must have sufficient practical hands-on experience (over 3 years) in preparing, facilitating and executing bootcamp events of a similar nature. The firm must demonstrate the ability to manage a call and selection process and share some examples of success stories from previously conducted science-related bootcamp activities. The firm should have good working knowledge of both BioInnovate Africa and BecA-ILRI hub mission and objectives including

nature and type of sustainable research and innovation projects. Knowledge and experience working in central or eastern Africa is an added advantage.

## **7. DELIVERABLES AND TIME FRAME**

The deliverables of the assignment will be as follows;

	<b>Deliverable</b>	<b>Deadline, 2021<sup>1</sup></b>
	A concept note and inception plan	15 April
	Selected participants	2 July
	Pre-bootcamp mentorship	30 Aug
	Delivery of the bootcamp	20-24 Sep
	A final report	15 Oct

## **8. RESOURCES**

The firm shall be provided with relevant documentation required during the planning process.

## **9. BUDGET**

Subject to the provisions of this assignment, the firm shall be facilitated for travel, accommodation and other requirements listed under section 5. The consultant will be compensated as follows:

	<b>Deliverable</b>	<b>Percentage</b>
	A concept note and inception plan	30%
	Selected participants	10%
	Pre-bootcamp mentorship	20%
	Delivery of the bootcamp and a final report	40%

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<sup>1</sup> The dates are subject to change