

AfriBIO Hub



Accelerating development and diffusion of emerging biotechnologies for a resilient Africa

Dr. Susan Musembi | Applied Sciences as drivers for regional innovation ecosystems in Africa | 5-7 September 2023 | Brussels, Belgium



Our Vision

To be a regional center of activity for the
biotech startup ecosystem in Africa

Our Objectives

To accelerate the diffusion of biotechnology through the provision of training and promotion of research & development activities in the region

To advance biological science and biotechnology by encouraging and supporting innovations in biosciences

To promote sustainable socio-economic development through biosciences



How

A Center of Competence in biosciences dedicated to incorporation of biology, intellectual property, hardware, policy, social science and economics, towards creating a sustainable, open and equitable bio-economy in the region

Current Projects

Sorghum Project



Sorghum – a key cereal crop in SSA

Nutrition source for >500 million African families

Diverse use - feed, beverages, biofuel

Climate-smart - resilient for cultivation in marginalized semi-arid regions

Largely considered a “woman’s crop in Africa”

The Problem

Striga – The cereal killer



Also known as witchweed, Striga is a pathogen of cereal crops in sub-saharan Africa

Affects most cultivated cereals, including maize, millet, sorghum, and rice

With limited and ineffective management options, Striga has continued to increase both its host range and area under infestation

Runo S, Kuria EK (2018) Habits of a highly successful cereal killer, Striga. PLoS Pathog 14(1): e1006731. <https://doi.org/10.1371/journal.ppat.1006731>

Striga Smart Sorghum

Building on pilot findings by Corteva Agriscience: Striga resistance imparted in a brewing variety (Macia)

Current status: initiated commercialisation activities

Activities to transform other farmer preferred varieties in Kenya and Ethiopia on going

Enzyme Manufacturing

Leveraging synthetic biology to manufacture 'low-volume' 'high value' reagents for molecular biology research with low-cost equipment





Bioentrepreneurship training and mentoring

From Science-speak to business-speak

*For researchers and inventors in biosciences who
want to develop a roadmap to realize the
commercial potential of their innovations*



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The Journey

*Multi-institutional, multi-sectoral,
public-private partnership project*

*A team that is invested in the process
and the outcome*

*Value proposition – consumer,
market driven*



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The Journey

Co-creation – partners gain from each others vast experience, sharing of information



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Communication: bridging the gap between the science and society



Building an enabling environment: policies, product stewardship



The Team



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