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Seminar****UPCOMING EVENT**

## ARTIFICIAL INTELLIGENCE - DRIVING AFRICA'S ECONOMY

| 17<sup>th</sup> November 2021, 10 am - 12 pm (CAT) | [www.bioafricaconvention.com](http://www.bioafricaconvention.com)

## African Solutions by Africa: The BIO Africa Start-up Index



**A fundraising tool for Biotechnology Start-ups and SMMEs**

**START UP INDEX**

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While South African start-ups within biotechnology face a lot of challenges, it is also true that they also enjoy tremendous opportunities. It is important not to lose sight of these opportunities, nor of how much the companies have achieved over the last few years.

The growth and success of Biotechnology service is critical for the African continent as biotechnology can provide myriad of solutions for many of the health, climate change and resource-based problems facing the African continent, South Africa and the rest of Africa. Furthermore, it becomes important to ensure the success of life sciences on the African continent through Entrepreneurship/bio entrepreneurship as to promote social change through innovation.

Great entrepreneurs can change the way we live and work. If successful, their innovations may improve standards of living, and in addition creating wealth through entrepreneurial ventures. However, a common problem

for most start-ups is a lack of knowledge and funding, which is generally the primary cause of failure.

So, how might start-ups receive a chance to avoid these frequent pitfalls? This is where the Start-Up Index comes into play.

A start-up index is often used as a comprehensive indicator of new business creation, integrating several high-quality sources of timely entrepreneurship information into one composite indicator.

Thus, BIO Africa has created a Start Up Index to simulate and mobilise private and other capital for Innovation and entrepreneurship in Africa, which ultimately aims to serve as a solution-driven tool that offers the young businesses an opportunity to access potential strategic partners, funding, investments, and business development support, through the BIO Africa Network.

## The platform is made for:

- Entrepreneurs and innovators within biotechnology sector
- Local and global investors
- Private companies
- Those looking to join innovative teams in the biotech space

While the challenges are large, the opportunity does exist for South Africa to develop a competitive biotech sector. By creating an ecosystem for biotechnology innovators and entrepreneurs we can ensure that we allow these players an opportunity to impact the growth of this industry on the African continent. While ensuring we bring an African solution driven by Africans themselves.

## Raising biotech start-ups in South Africa: It takes a village

The session from the BIO Africa Digital Convention 2021 featuring biotechnology start-ups was facilitated by Mr. Dheepak Maharajh of BioCiTi. Panellists discussed the various intrinsic and external challenges that must be overcome along the journey for biotech start-ups.



Dr. Sibongile Gumbi of Smart Biotech, a vaccine manufacturer reflected on the challenges she faced securing funding for her start-up, despite the initial excitement of funders about the emergence of a black woman led start-up. She emphasised the importance of investors to differentiate between equity and equality, and the importance of perseverance from idea to commercialisations.

For Mr Brett Thompson of Mzansi Meat co., acquiring local human resources with the relevant skillset was underscored as an initial challenge, which resorted in importing knowledge. According to Mr Thompson, South Africa should be receiving far more international investment. The cellular agriculture industry market is an emerging market in Africa, and for Mr Brett Thompson, provides an avenue for attracting investment towards biotechnology in Africa. Overcoming the propensity for local markets to distrust local products was a challenge that Mr. Daniel Ndima of CapeBio overcame by looking beyond local markets and focussing on international markets that were interested in their products.

Dr. Santosh Ramchuran from CSIR gave few ideas as to what it is that is “holding us [South Africa] back from embedding biotechnology into the bioeconomy”. Suggested mitigations included encouraging bioentrepreneurship that is aligned with industry markets, investing in people to stimulate innovations, adopting other models for stimulating innovations, and finally; creating policy and regulation of biobased products that should support and encourage local bioentrepreneurship.

The stimulating session concluded with a call by Dr. Siyavula Bulani to harness Africa’s potential in the biotechnology space and increase Africa’s contribution to global manufacturing capacity.

# The Start-Up Index

We interviewed two companies in the Start-Up Index (CapeBio and Sawubona Mycelium) and a project lead from Walter Sisulu University, to learn more about their products and journeys.



## CapeBio

We first spoke with Mr. Daniel Ndima, CEO of CapeBio Technologies, a local company that specialises in the biomanufacturing of molecular biology research, diagnostic kits, enzyme technologies and the first South African start up approved by South African Health Products Regulatory Authority (SAHPRA) for the manufacturing of COVID-19 diagnostic kits.

CapeBio was formally registered in 2018 and is a spin off from CSIR (Council for Scientific and Industrial Research) currently operating in Centurion, Pretoria.

### What underpins CapeBio's product and technology?

Daniel responded saying "what underpins our product is the proprietary process of making enzymes, which is what we created at CSIR. This process allows us to produce commercially valuable enzymes on a high scale and at a low cost. This enables us to develop many enzymes that are of critical value to our industry".



## Sawubona Mycelium

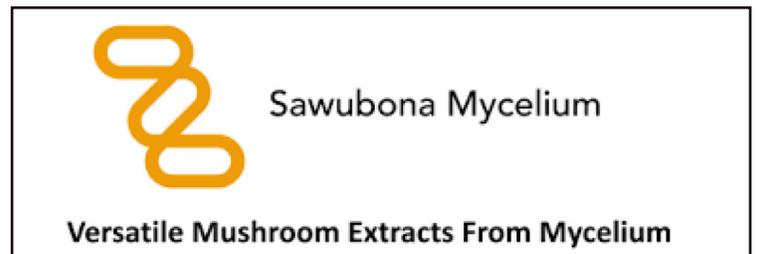
In our second interview we sat down with Ms. Busi Moloj, Co-founder and CEO and Mr. Neo Moloj, Co-founder and CBO of Sawubona Mycelium to tell us more about their company. Sawubona Mycelium is a bioprocessing company that produces high value ingredients for cosmetic, functional food and pharmaceutical applications.

### What is your product and what does it do?

Busi: "Our product is all about fermenting mushrooms and our aim is to produce bio-actives. The product that we are currently working on is beta-glucan. Beta-glucan is important and has applications in various industries, such as the cosmetic, pharmaceutical and food industry, and the beta-glucan in that space is beneficial for anti-aging benefits".

### When did you start Sawubona Mycelium and why?

Busi: "Sawubona Mycelium started in 2018. We started the company because we wanted to combine our passion for fermentation and medicinal mushrooms. We wanted to use fermentation to produce bio-actives that are important in different applications coming out of the mushroom".



### What are your expectations for the start-up index?

Neo responded saying "Ever since we heard about the start-up index, we have been excited to participate because we believe that the start-up index will provide our company with an opportunity to network with the eco-system of biotechnology and Africa".



## Walter Sisulu University: Adjustable Prosthetic Pylon

Our last interview was with Ms. Siphosethu Mgwili of Walter Sisulu University - one of the inventors of an adjustable prosthetic pylon designed to save children and adolescent amputees thousands of rands in upgrades as they go through physical changes over time.

### What are the details around your product and the technology that underpins it?

Siphosethu: “The name of our invention is called Adjustable Prosthetic Pylon, which is going to be used in prosthetic and artificial legs. This invention consists of two different designs, and both can be telescopically adjusted but differ in their adjustment capabilities and locking mechanisms. They also come in different lengths and sizes to accommodate children and adults.

### What are you looking to gain from the start-up index?

Siphosethu: “what I am looking forward to gaining from the start-up index is entrepreneurship development, professional support and an opportunity to network globally”.



## Start Up Index Business Breakfast

The first Annual Johannesburg Start up Index Business Breakfast will be officially launched in the first quarter of 2022. It will gather newly listed start-up businesses on the BIO Africa Start Up Index, along with our partners and those excited about investing in young biotechnology start-ups.

The Start Up Business Breakfast will be hosted annually and is solely focused on celebrating entrepreneurs in the Bio-technology space for their success and ability to impact the state of the industry on the continent.

### What to expect at the first Annual Business Start Up Index Business Breakfast

- Connecting local start-up’s with stakeholders
- Allow for each of our partners to speak about their contribution to the success of the Index
- Awarding of the businesses that have shown resilience and excellence in the past year

The Business Breakfast will allow the participants to share their stories and challenges that they have been facing more especially during the global health pandemic.



This is yet another initiative taken by the BIO Africa Network to support and show case the talent held on the African