



TRADE & INDUSTRIAL POLICY STRATEGIES

BLACK INDUSTRIALISTS CASE STUDIES

CapeBio Technologies

August 2022

The Black Industrialists Policy aims to increase the participation of black South Africans in operational management, rather than just financial ownership, of enterprises in key sectors and value chains. The programme was launched in 2015 by the Department of Trade, Industry and Competition, supported by the Industrial Development Corporation and the National Empowerment Fund.

The Black Industrialists Conference in August 2022 examined the impact of the Black Industrialists Programme and explored support measures to boost entry of black-owned businesses and producers into the mainstream economy. It also showcased the work of black industrialists. As an input into the conference, TIPS prepared nine case studies on black industrialists. Renee Grawitzky conducted the research and interviews, and TIPS provided the industry context and looked at the broader developmental objectives.

This case study profiles CapeBio Technologies, a biotechnology company that manufactures diagnostic kits. Other companies profiled are: Easy Farm; Equal ELM Trading; Flat-Foot Engineering; Ikusasa Green; Microfinish; Pambili Media; PepsiCo ESOP; and Sindane Mining Ventures. Copies of the case studies are [available here](#).

CapeBio Technologies: biotechnology company

CapeBio Technologies is an advanced biotechnology company that among others manufactures diagnostic kits, including for COVID-19, HIV and tuberculosis. It produces reagent enzymes used in molecular research and in-vitro diagnostics (including PCR tests, cloning and genome editing). It has developed a proprietary bio-discovery artificial intelligence platform for enzymes, therapeutic peptides, and therapeutic-relevant biosynthetic gene clusters, amongst other molecules.

In 2021, CapeBio took a step up when it was authorised by the government to produce COVID-19 testing kits. As of August 2021, it planned to produce up to 5 000 kits a day, with each kit providing a thousand tests. The kit is fully locally produced. It was expected to meet the bulk of national demand as well as supplying other countries, especially in Africa.

CapeBio is based in Centurion, where it has a R50-million plant. It employs more than 20 scientists as well as 30 other employees. In effect, it forms part of the medical production cluster that has emerged around Gauteng, comprising one of the most advanced manufacturing centres in the country.

CapeBio emerged from a partnership between the CSIR, the Department of Science, Technology and Innovation (STI) and its founder, Daniel Ndima, to develop a proprietary manufacturing process for enzymes. From 2015 to 2018, the CSIR provided project research funding and housed the project. As Ndima points out “to start a biotech company is a huge investment, so you can either outsource your research or you work with an organisation that gives you space and support. That is what happened with the CSIR along with STI.”

After successfully developing commercial products, Ndima founded CapeBio as a separate entity with its own manufacturing capacity in 2018. He obtained funding from E Squared Investments, which focuses on supporting black entrepreneurs. The Technology Innovation Agency also provided some grant funding. The STI established the agency to help with the development and commercialisation of technologies, with a particular focus on pharmaceuticals. It prioritises projects that, like CapeBio, aim to bridge the gap between local research institutions and universities and production for the market.

Ndima graduated from Uxolo secondary school in Khayelitsha and studied biotechnology at the University of the Western Cape before completing a Master’s in structural biology at the University of Pretoria. While at university, he was struck by the heavy dependence on imported laboratory equipment and inputs. He recognised that producing these advanced products locally was an opportunity for local industrialisation, and decided to build a business to produce enzymes mostly for diagnostics.

Ndima traces his dream of innovating and going into business back to his early years watching his grandfather farm in the Eastern Cape, where he was born. He says that experience showed him the value of working with your hands and doing something for yourself. He gained insight into how to do business and he decided that one day he would start his own enterprise.

According to Ndima, although CapeBio is “still finding our feet, we want our company to be a beacon of hope that we are able to produce world class products”. He believes that CapeBio and similar companies “can build a pipeline of intellectual property that would put South Africa on the global map in the biotech industry”. The company is already manufacturing key ingredients for a global value chain, and is now in talks about transferring intellectual property to Europe,

reversing the traditional flow. It is in discussion with potential French partners and exploring additional opportunities in Eastern Europe.

As part of its broader mission of building advanced manufacturing in South Africa, CapeBio mentors new graduates with the aim of building South Africa's pool of skilled resources to drive advanced manufacturing in biotechnology. In addition, it has placed unemployed youth through the Presidency's YES programme. The company has ended up providing 80% of these interns with permanent jobs in the company.

Ndima argues that a prerequisite for building advanced manufacturing in South Africa is government support in securing access to local markets, which have long looked primarily to foreign suppliers. He has found that if the government does not require entities to buy locally, they will maintain their long-standing dependence on imports even when local producers can provide the same quality and price. If government does not ensure preferences for competitive local producers, he says, young innovators will never grow.

Trade & Industrial Policies Strategies (TIPS) is an independent, non-profit, economic research institution established in 1996 to support economic policy development. TIPS undertakes quantitative and qualitative research, project management, dialogue facilitation, capacity building and knowledge sharing. Its areas of focus are: industrial policy, trade and regional integration, sustainable growth, and a just transition to a sustainable inclusive economy.

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