INNOVATION COUNCIL

Q&A with Innovation Council Member Sawubona Mycelium

Introductions.

My name is Neo Moloi, and I am the co-founder of the Biotech company called Sawubona Mycelium, based in South Africa.

Tell me about the name of your company.

The name of the company is a combination of two words. The first one is Sawubona, which is a Zulu word to greet someone. This word is more than "hello". It has a deeper meaning related to how you see a person, who they truly are, and the value they bring to your life. The second word is Mycelium (fungi) and it refers to the roots of mushrooms, the mycelium network.

What is the story of your business?

I founded Sawubona Mycelium in 2018 with my business and life partner. We had previously worked for SABMiller doing fermentation technical work, fermentation management and Continuous Improvement (CI) work. As we became more interested in fungi, we decided to combine our experience and create a fermentation platform where we can produce novel and interesting raw materials and products that could be used by industry.

What is your invention?

The team is led by myself and my partner. We also have a research team and the TIA Bioprocessing Facility team that is involved in day-to-day production development and research activities. They carry out research protocols based on our ideas and where we want to take the company.

Most people know about fermentation, as it is used in the production of beverages such as beer and wine. We use a similar process as a platform to produce biobased ingredients for cosmetics, biopharma, and food. We produce and purify the active ingredients for other companies to use, and we have also started our own consumer brand using the same ingredients that we manufacture ourselves to make skin care products.

While our company is originally a technology-developing company, we want to use that technology to create novel things. With the consumer brand, we can showcase our raw material products and the application of our technology to the world.

What impact will your invention have on society?

We believe in looking at different ways of manufacturing and innovating. If you look at the ingredients when manufacturing products like skin care, they often come from petrol-chemicals, and some have been historically harvested from animals. We believe fungal mycelium will help by improving sustainable manufacturing, in addition to providing new useful ingredients that are effective and that do not cause any human allergies.

How has IP played a role in your activities so far?

For us, intellectual property has played a role in value creation. In 2021 we started looking seriously at patent protection. After changing our market strategy, we are now preparing to file for patents in relation to our raw materials for skin care products. We are creating protocols and fermentation methods, firstly the ways to do it, and ways to improve yields. We have a lot of know-how in our business - this is why we carefuly manage our trade secrets. We also benefitted from the Innovator Assistance Program at WIPO.

What challenges have you encountered as an SME seeking to use IP rights?

There have been several challenges. IP is a very technical field and, as an SME, you have limited resources. When you are growing your company, it can also be hard to make time to talk with IP specialists about the best IP tools.

Do you partner with other organizations?

We do – and trade secrets have become really important in this context. For our highest value know-how, we are very careful to manage that using NDAs and other strategies.

We have contracted researchers to work with us, and they sign research contracts and NDAs to ensure our know-how is protected. Last year we also brought on new partners to work with us to develop new products using our particular expertise. Using research papers and our understanding of science, we develop our process by changing a few variables to suit what we want to achieve. We review research by others, and we also develop our own research papers. This means that some of what we know and have developed may be published.

How do government policies affect what you do?

As a startup in South Africa, there are some policies and programs that support the biotech industry. The Department of Science and Innovation has put together a Bioeconomy strategy specifically in the area of biotech to support this sector's development. There are also support programs for companies like us such as the Technology Innovation Agency and the Innovation Hub, which are great to work with. Last year, the Innovation Hub organized a workshop with WIPO to present their new IP Diagnostics tool, which we appreciated. The Small Enterprise Development Agency is also an important partner.

However, more attention could be paid by carefully assessing the impact of policies on businesses in our sector. It could be good, for instance, to review the impact of policies every couple of years. Currently, you can wait as long as 10 years for a policy's impact to be assessed. The ecosystem needs development and perhaps the government could create the conditions to help its evolution. It would be good to evaluate the ecosystem and check the gaps, helping to fill them. In South Africa, there are not many successful biotech startups. We need to look at why they don't survive further post the value of death.

What government programs have really helped?

I have three examples. First, technology transfer funding done by the Small Enterprise Development Agency (SEDA). It's not well known but this program has a fund that helps people to acquire technology that will help further their business. Second, the Innovation Hub hosted a GAPBiosciences competition that we won in 2019. We had to present our business model and plans, and this win helped to

improve our visibility. External experts from the United States came and supported this work and taught us important skills.

Third, there is a biotech innovation program started by the Department of Science and Innovation together with the Technology Innovation Agency to start a new funding instrument to help startups, end of 2019. This helped us to come out with a proof of concept and something tangible to show our customers. In addition, the Innovation Fund is a new instrument that will again be offered by the Department of Science and Innovation to help startups to grow, by providing funding.

Where do you see your business in five years?

We are working to identify more fields and countries where we can use our products and expand our market. We started with skin care as a market segment, and now we are attracting attention from multinationals and researchers. For now, we are focusing on servicing such companies and innovators with novel ingredients for skin care, using our innovative fermentation methods. The immediate goal is to supply more customers, however, we are working to distinguish ourselves one sector at a time. Then, we can start looking at new industrial sectors like functional and novel polymers for wellness industry, i.e. mental health and reproductive health.

Click here for more information about Sawubona Mycelium. To learn more about Innovation Council, please visit our website or contact Jennifer Brant at jbrant@innovationcouncil.org.