



Advancing Representation and Innovation in South Africa: The Crucial Role of black Women in the Deep Tech Sector

The world of technology is rapidly evolving, driving innovation and economic growth around the world. Within this dynamic landscape, the deep tech sector stands out for its focus on cutting-edge, disruptive technologies that have the potential to change our future. In South Africa, diversity and inclusivity have presented a significant challenge in this sector with the lack of representation in the realm of race, gender, ability, geography and sexuality.

This is especially the case for black women in the deep tech sector. In 2008, the American feminist writer Moya Bailey coined the term "misogynoir" to describe the two-pronged discrimination that black women tend to face in the world. As a demographic that faces double discrimination based on both race and gender, black women have had to overcome a number of hurdles to assert themselves as a force within the technology and innovation space. Despite historical barriers to access, funding and resources, black women have demonstrated the kind of grit, resilience and a commitment to challenging stereotypes, promoting innovation and highlighting some of the obstacles which make it difficult for other black women innovators, inventors and technopreneurs to enter the deep tech sector.

To ensure that the Venture Builder (VB) is a mechanism through which a diversity of innovators, technopreneurs and thinkers rejuvenate the National System of Innovation (NSI), the Cape Peninsula University of Technology (CPUT) and the Technological Higher Education Network South Africa (THENSA) have brought together participants and stakeholders from a number of universities. Each of them have given us perspectives, insights and opinions that have enriched the process of building the VB, ensuring that it is not an echo chamber, but an inclusive forum wherein the realities of the country are accounted for meaningfully.

The deep tech sector encompasses innovations and technologies which have revolutionised industries and improved the quality of life for the human population. However, despite their transformative potential, it still lags in terms of diversity and inclusion, with people of colour, people with disabilities and people from rural communities being underrepresented. Therefore, the VB can play a pivotal role in not only enhancing representation within the National System of Innovation (NSI), but also ensuring that technologies are developed and commercialised by a representative demographic. And given that black women make up more than half of South

Africa's population, it is crucial that their voices are not only amplified, but that their ideas are forefronted.

This lack of representation is not only an issue of fairness but also hinders innovation. Diverse teams bring a variety of perspectives, experiences, and problem-solving approaches to the table, ultimately leading to more creative and impactful solutions. By overlooking the contributions of black women, we risk missing out on groundbreaking advancements that could benefit society as a whole. The VB has the power to actively seek out and support black women technopreneurs, providing access to resources, knowledge, and networks which assist in bridging the representation gap. This inclusivity helps create a more diverse and vibrant innovation ecosystem within South Africa.

In addition, black women face barriers when it comes to acquiring the skills and knowledge needed for deep tech fields. The VB will facilitate the kind of skills development and capacity building which will equip black women with the necessary tools to excel in the sector. And given that collaboration is at the cornerstone of this unique initiative, the partnerships formed between black women technopreneurs and industry experts, researchers and investors will hopefully lead to groundbreaking technologies with commercial appeal.

Most importantly, the inclusion of funders and investors will ease the obstacles in terms of accessing funding for technopreneurs, especially for black women. The VB will be able to connect technopreneurs with investors who are committed to promoting diversity and backing innovative solutions, offering mentorship and increasing the chances of these ventures being spun into successful startups.

In South Africa, black women have been pivotal in founding and leading shallow and deep tech startups that address critical issues in their communities. Dr. Vuyelwa Toni Penxa is behind the startup, SWIFT Quantum Computing, which is dedicated to quantum technology. Nneile Nkholise founded iMed Tech, a company which produces affordable and custom-made prosthetic devices using 3D printing technology. And then there is GirlsCodeZ, an initiative led by black women like Baratang Miya and Tinyiko Simbine, who are striving to offer coding and digital skills training to young girls and women.

Black women have the potential to be a driving force in South Africa's deep tech sector, contributing groundbreaking innovations and fostering a more inclusive and dynamic innovation ecosystem. Venture Builders, by actively supporting and promoting black women entrepreneurs, can play a pivotal role in advancing representation within the National System of Innovation and ensuring that their technologies are successfully commercialised. Embracing

diversity and inclusion in the deep tech sector is not just a matter of equity; it's a pathway to a brighter, more innovative future for South Africa and the world.

The achievements of black South African women in the tech space go beyond individual success. Their contributions are paving the way for a more diverse and inclusive tech industry. By breaking down barriers and advocating for change, they are inspiring the next generation of black girls and women to pursue careers in STEM. Black South African women in the tech space are true trailblazers, defying historical constraints and making their mark as innovators, entrepreneurs, educators and leaders. Their resilience, determination, and commitment to diversity and inclusion are driving positive change in the tech industry and society as a whole. It is crucial to continue supporting and empowering these remarkable women to ensure a brighter, more inclusive tech future for all.