INNOVATE DURBAN

INNOVATORS OF KWAZULU-NATAL

State of Innovation in KwaZulu-Natal Publication Series

2025/26

INNOVATORS OF KWAZULU-NATAL

State of Innovation in KwaZulu-Natal Publication | 2025/26 Series

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ABOUT THIS PUBLICATION

This document is one of three that make up the seventh edition of the State of Innovation in KwaZulu-Natal, produced annually by Innovate Durban. The Technical Report provides a full quantitative analysis of innovation across the province, tracking performance across five categories: People, Investment, Infrastructure, Ecosystem, and Impact, drawing on national data sources to build a picture of how the province is performing over time. The Snapshot distils the headline findings into a shorter summary for a broad stakeholder audience. This document, the Innovators of KwaZulu-Natal Publication, takes a different approach entirely. Where the Technical Report measures, this one listens. It is the qualitative complement to the data: eleven profiles of people doing the actual work of innovation in KwaZulu-Natal, told in their own words and on their own terms.

Together, the three documents are intended to give a fuller picture of what innovation looks like in this province than any single format can provide on its own.

WHY THIS MATTERS

Data tells you how a province is performing. It does not tell you who is doing the work, what drove them to start, or what it actually costs to keep going. Without that layer, innovation reporting risks becoming a set of numbers that float free of the people and places behind them.

Profiling local innovators serves a practical purpose beyond recognition. Visibility matters in the innovation ecosystem. When a funder, a corporate partner, or a government department sees credible, well-researched profiles of innovators operating in their region, it creates connection points that would not otherwise exist. Several of the innovators in previous editions of this publication have cited the profile itself as a factor in securing new partnerships or opportunities. For innovators working in rural areas, or in sectors that do not typically attract attention, that kind of exposure can be disproportionately valuable.

There is also a broader argument. KwaZulu-Natal has a strong and growing base of people building solutions to real problems in their own communities. That story is not told often enough, and when it is not told, it becomes harder to make the case for the investment, infrastructure, and institutional support that would allow more of it to happen. This publication exists, in part, to make that case.

There is a woman in Pongola who started making jam during her stroke recovery because she could not find food she was allowed to eat within a reasonable distance of her home. There is a man in Durban who spent years going to taxi ranks and truck stops to talk to drivers about sexual health, without pay, after the hospital that had originally hired him closed down. There is a student at UKZN who built a service delivery app between classes and watched it go national before he finished his degree.

These are not the kinds of stories that typically make the front page, though some of them have. A few of the innovators in this cohort have attracted national media attention for work that started quietly, in KwaZulu-Natal, without much fanfare. Others have been building for years without that kind of recognition. What they have in common is that they identified a problem worth solving and got on with it, with whatever resources were available to them at the time.

The ten people in this section were selected because they are building things that matter in KwaZulu-Natal right now. Some run properly registered companies with staff and clients and revenue. Others are still working towards their first real product. The section does not treat those two situations as different in kind, only in stage. What connected all of them, across very different sectors and very different backgrounds, was that none of them were waiting for someone else to solve the problem first.

HOW THEY WERE SELECTED

Nominations opened in October 2025 through an open call. Anyone could nominate themselves or someone else. The form asked for a description of the innovation, the problem it is trying to solve, what evidence of impact exists so far, what obstacles the innovator has faced, and what they are trying to achieve in the year ahead.

The Innovate Durban Research Department reviewed submissions against four questions: Is the problem real and clearly defined? Is there something to show for the work so far? Is the approach doing something genuinely different in the KZN context, even if it borrows from ideas that exist elsewhere? And does the person seem committed enough to keep building?

Everyone who made the shortlist was interviewed. Innovate Durban's Research Department conducted the interviews between February and March 2026, mostly over video call. The interviews were not structured as assessments. The aim was to understand how the person got to where they are, what they are actually building day to day, and what they think about it. Draft profiles went back to each innovator to check before publication.

The final group of ten covers a wide range of sectors, geographies, and stages. That spread was deliberate. A selection process that only recognises ventures once they are commercially proven tends to produce a very particular kind of profile: urban, already resourced, already visible. This section was put together on the assumption that the more interesting story, and the more honest one, includes people who are still in the middle of figuring it out.

Several of the innovators featured here are alumni of Innovate Durban's accelerator programmes, including SHEshisa. Their inclusion reflects what those programmes are designed to produce, and their profiles were assessed on the same basis as all other nominations.

THE 2025/26 COHORT

1. **Keyuren Maharaj,** CityMender SA (Civic Technology)
2. **Nireshnee and Viroshen Chetty,** Mind Blown League (EdTech/Games)
3. **Zinzi Nontsikelelo Manana,** Vegetable Basket (Agriculture/Agri-processing)
4. **Busisiwe Mbanda,** Volcanic Explosion PTY LTD (Manufacturing)
5. **Nontobeko Ndlovu,** Abaqhakazi Trading (Manufacturing/Textiles)
6. **Sphiwe Khuzwayo,** KZN Tech Horizons (EdTech/Digital Skills)
7. **Nafeesa Alibedi,** Creative Tech Solutions (Technology/Digital Education)
8. **Siviwe Xakaza,** Nodlela Software / Fundani (Software)
9. **Phakamani Ndlovu,** Phakamani Empowerment (Sexual Health/Social Innovation)
10. **Jadean Wright,** ArcanaTech (IoT/Disaster Management)

Innovators of KwaZulu-Natal | 2025/26 Edition | Produced by Innovate Durban

124 VERSIONS LATER

KEYUREN MAHARAJ AND CITYMENDER SA

THE RATEPAYERS MEETING

The meeting where Keyuren Maharaj realised he was onto something bigger than a community tool was not a pitch event or a funding conversation. It was a monthly ratepayers board meeting in Glenwood, Durban, where the youngest person in the room sat listening to the same unresolved problems being raised for the third, fourth, and fifth consecutive month. No data. No accountability. No system was available that could tell a community organisation what had been reported, when it had been escalated, and whether anything had actually been done. “Every single month, the same stuff kept coming up,” he says, “and nothing was being done about it. But not actually having the data to back up the claim.”

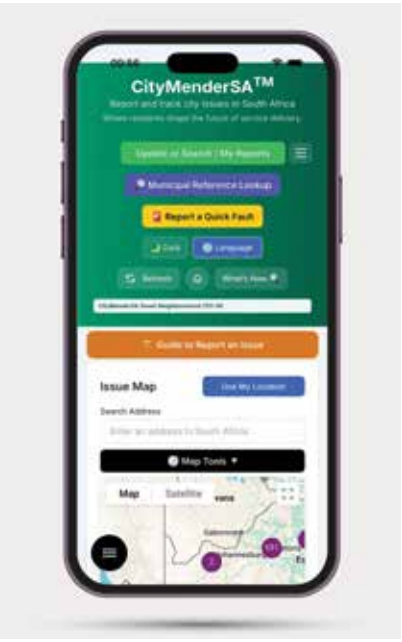
Keyuren is 23 years old and studying Mechanical Engineering at UKZN. He got involved with civic organisations during the unrest of 2021, formally joined ratepayers structures in 2022, and eventually became chairman of the Glenwood Ratepayers Association. He arrived with no technology background and had always told his mother he hated coding. When he decided to build the system the community needed, he decided he would build it himself. CityMender South Africa is what eight months of self-taught development, 124 versions, 36 iterations since launch, and a mechanical engineering student’s stubbornness produced.

WHAT CITYMENDER DOES

The platform is civic technology at its most practical. Residents open the app, report an infrastructure issue, a pothole, a water leak, a failed streetlight, a sinkhole, and the system automatically detects and assigns the correct municipality and ward, anywhere in South Africa. The report creates a public reference point on a live national map. Other residents can view it, update it, and add photographs. Municipalities receive automatic escalation. The history of every report, every update, every response, and every period of silence is preserved and publicly visible.

“I like to say it’s a Waze for service delivery,” Keyuren explains. In the navigation app, users collectively update road conditions in real time, creating a picture no single data source could produce. CityMender applies that logic to infrastructure: crowdsourced, historically anchored, and visible to everyone. In eight months since launch, the platform has collected 3,500 reports. With enough data, the system will not only track failures but predict them, identifying pipe-burst patterns or road-sinkage clusters before they escalate. The platform is free, requires no registration, and collects no personal data. The only identity in the system is the infrastructure itself.

> “START WITH THE REAL PROBLEM. DON’T MAKE ONE UP. THE MOST IMPACTFUL INNOVATIONS COME FROM OBSERVING EVERYDAY CHALLENGES.”
>
> **— Keyuren Maharaj, CityMender**



124 VERSIONS

Keyuren spent eight months learning to code before the first working model was produced. The version he remembers most vividly arrived in May 2025, after what had felt like a genuine breakthrough. The map was working. The issue pop-ups worked. For the first time, it looked like a real product. The problem was that the entire system was built on local storage. It worked on his device. If someone in another area logged an issue, nobody else would ever see it. There was no shared system and no real network. He spent weeks trying to patch it. Eventually he realised it could not be fixed. He had to start again from scratch. “Looking back, it was one of the most important turning points, because it forced me to understand that I wasn’t just building an interface. I was building a connected system.” There were harder periods still. After the initial launch, there was a spike in activity and then it dropped off sharply. There were days when only one or two issues were being logged and it felt like momentum had stalled completely. That low point forced a shift in thinking: from just capturing issues, to tracking them properly and making them visible over time. Features like photo uploads and improved tracking came directly out of that period of doubt. In hindsight, that moment was where the platform started becoming what it is today.

WHEN IT WORKS

On Clark Road in Glenwood, a sinkhole had started forming. A resident had driven past it for days with no action being taken. They reported it on CityMender. Within just over a week, repair teams were on site and the issue was addressed. On Mackeurtan Avenue, a separate issue was resolved in six days through a combination of community reporting and support from a private security partner who helped escalate the matter. It showed how community, private sector, and municipal systems can work together effectively when there is visibility.

The East Coast Radio feature that brought national attention to CityMender started with a direct message on social media. When it went live, over a hundred comments came in and Keyuren stayed up until around 3am replying to each one. What stood out was the mix of curiosity and cautious optimism. People are understandably sceptical about whether platforms like this can actually make a difference. That coverage validated the idea publicly, significantly increased engagement, and opened doors to further conversations with organisations and media.

ACCOUNTABILITY BY DESIGN

The platform’s relationship with municipalities is transparent by design, which can at times be uncomfortable. CityMender SA does not hide municipal non-response. It displays it. If a reported issue receives no action after a week or two, the public map shows that. The effect on eThekwini has been gradual but real. Initially, the municipality ignored the platform. More recently, they invited Keyuren to discuss integrating CityMender’s data with its own systems.

NGOs have become among the most active users of the system. Two Free State municipalities placed under administration, effectively non-functional, now have community organisations running CityMender portals to fill the governance gap. An NGO in Camps Bay reached out to establish its own portal. The platform is operating in spaces where the formal accountability system has stopped functioning.

WHAT KEEPS GROWING

The development roadmap is driven by resident feedback and by what the data suggests is missing. A municipal reference number lookup tool has just launched. A navigation feature is in development that will alert drivers at night to road conditions ahead. AI capable of assessing pothole depth and estimating repair cost from photographs is already integrated. The system is currently under provisional patent protection. A City Demand Billing Assistant feature, addressing the billing disputes that dominate community meetings, is weeks from release. By year end the platform will expand into a second African country.

Commercialisation conversations with insurance companies and banks are in advanced stages, progressing towards formal pilot structures. They centre on how real-time infrastructure data, potholes, water leaks, streetlight failures, can support risk assessment and decision-making without involving personal data. “It’s been encouraging to see that what starts as a community-level issue has relevance at an institutional level. Infrastructure affects everything, from safety and mobility to financial risk, and there is growing recognition that better data in this space has real value.”

Keyuren’s advice is grounded in his own experience of walking into rooms where nobody expected to meet someone his age. He recalls being looked over at early meetings, with people scanning the room for the investor behind the young man in front of them. Now the app exists, has national media coverage, and speaks for itself. Over 3,500 issues logged. 124 versions built. One developer. Eight months. The map is live, and it keeps growing.

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SECTOR	AGE AT LAUNCH	REPORTS LOGGED	STAGE	MEDIA COVEREAGE
Civic Technology	23 Years Old	3,500+	Provisional patent; Expanding to second African country	East Coast Radio; National coverage

GAMING FOR A GREENER, SMARTER FUTURE

NIRESHNEE AND VIROSHEN CHETTY AND MIND BLOWN LEAGUE EXCELLENCE

SOCIAL-IMPACT ENTREPRENEURS FIRST

When Nireshnee Chetty and Viroshen Chetty began building what would become Mind Blown League, they were not trying to enter the education market in the conventional way. They were trying to solve a more practical and more urgent problem: how do you get young people to genuinely engage with ideas that matter, especially when traditional formats are no longer holding their attention?

That question came out of the founders' own professional journey. Viroshen trained as a journalist and has spent much of his career using story, media and design to help people connect with ideas. Nireshnee's background is in the social sciences and Industrial Psychology, with a strong interest in how people engage, learn and respond in real environments. Together, they had already worked across storytelling, communication and socially driven projects, including their previous startup FilmCraft, which from 2011 to 2020 helped train over 450 community organisations in scripting, shooting and editing their own YouTube videos for social change. Viroshen's car accident in 2015 was, literally, a turning point. "It brought a stark reminder that life may be cut short while we are busy going about our plans, our dreams," Viroshen said. "So we better make our time in this beautiful world count." The entrepreneurs then pivoted their attention to see how they could help young people develop resilience to future risks, such as the Fourth Industrial Revolution and climate change.

THE LIGHT-BULB MOMENT

Like all their projects, they built it from the bottom up by going directly to the source. They spent time in schools and spoke directly to learners, educators and pedagogic experts. One early idea was to create a science magazine. The response from learners was clear: they were not reading. Instead, they were playing games. Rather than resist that reality, the founders followed it. The question shifted from how to get young people back into old formats to how to place worthwhile knowledge inside game platforms they already found social, exciting and worth returning to.

That insight became the basis of Mind Blown League, a KwaZulu-Natal innovation company that builds playable learning systems for any topic, in particular STEM and climate engagement. Its model combines game mechanics, curriculum-linked content, story design and live facilitation to turn learning into a social experience. Instead of asking learners to passively absorb information, Mind Blown League creates environments in which they play, debate, solve, compete and collaborate. Between 2016 and 2019, in a self-funded pilot phase, Mind Blown League engaged with around 5,000 learners, parents and educators across 100 schools. What emerged from that period was not only proof of interest, but a sharper understanding of the real problem. The issue was not that young people lacked curiosity or imagination. It was that too often they were being asked to engage through formats that did not pull them in.

> "IF LEARNING FEELS ALIVE, IF IT FEELS CONNECTED TO THE PEOPLE PLAYING, THEN YOUNG PEOPLE ARE MORE LIKELY TO STAY CURIOUS, REMEMBER WHAT THEY LEARN, AND ACT ON IT."
>
> **— Nireshnee Chetty, Mind Blown League**

GOING DIGITAL IN AN OFFLINE WORLD

The team's first major product development cycle initially moved toward a digital direction. In 2019, after attending a Presidential Innovation Summit and entering the final stages of securing TIA support, the founders began building with stronger digital ambitions in mind. During the COVID-19 period, they worked intensively on curriculum alignment, characters, gameplay systems and educational structure built on digital platforms. But when schools reopened, they came up against a simple constraint with major strategic consequences: learners were not allowed to bring phones to school.

For many early-stage ventures, that kind of constraint can stall momentum. For Mind Blown League, it sharpened the model. The founders realised that if they were serious about serving the environments they worked in, they needed a format that functioned under real school conditions, not ideal ones. They moved toward portable, card-based systems that were affordable, flexible and immediately usable in classrooms, clubs and community settings. In a context shaped by uneven access and digital overload, they saw enduring value in offline, peer-to-peer play that gets learners talking, laughing, thinking and learning together in the same space.

STORYTELLERS FIRST

What differentiates Mind Blown League is that it is not simply producing educational games as standalone products. It is building an original, scalable intellectual property and delivery system around them. At the centre of that system is an imaginative story world in which climate pressures become playable through characters, factions, missions and conflicts. Climate change is not presented only as information to be memorised. It becomes something young people, playing the role of Climate Warriors, can encounter through strategy, identity and narrative. To build story as an engagement tool, the founders assembled a young team of talented creatives including a narrative designer, video editor, digital designer, illustrators and a strategic communicator specialising in climate education through play.

Mind Blown League sits at the intersection of education, climate engagement, youth culture and IP-led experience design. Its products are designed to work across multiple settings: school programmes, after-school clubs, funded pilots, tournament formats and public activations. The company is not building only for classroom adoption. It is building a broader participation platform that can move across schools, communities and public spaces like game shops and malls.

AWARD-WINNING TRACTION

Mind Blown League's work has attracted support through TIA funding, the SAB Foundation Seed Award, and selection as an Innovate Durban Pitching Den finalist. In the recent Hammarsdale pilot, 93.8% of learners reported higher interest in Science after participating in the programme, while learner confidence in tests rose from 20% to 60% across the cohort. These results suggest that when learning becomes social, relevant and playable, young people respond with greater energy and confidence than conventional formats typically unlock.

Just as important is what the company has learned about commercial reality. Strong pilot outcomes do not automatically translate into school procurement. Most schools in underserved areas do not have access to funding for specialised programmes. Mind Blown League's response has been strategic: instead of relying solely on schools as customers, the company is expanding into activations, leagues, tournaments and community-facing experiences that can build audience, brand recognition and recurring participation beyond the classroom.

WHAT THE FUTURE LOOKS LIKE

In a province and a country looking for fresh approaches to youth engagement, STEM participation and climate literacy, Mind Blown League offers a compelling example of innovation grounded in local reality. It began with direct observation, evolved through real constraints, and has grown into a platform that combines impact with commercial intent. "We know schools and teachers are under enormous pressure, and too many learners experience education as stress rather than discovery," Nireshnee said. "In a country facing high youth unemployment, and in a world facing growing climate pressure, we have to develop new education platforms. We want young people not only to learn, but to feel curious, capable, socially alive and connected to the future."

Mind Blown League is bigger than a game. It is a KwaZulu-Natal company building a new kind of learning venture: one where story, play and participation are not extras around the innovation, but the innovation itself.

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SECTOR	ACTIVE SINCE	KEY RESULT	FUNDING	DELIVERY MODEL
EdTech / Games / Climate	2016 (5,000+ learners, 100 schools in pilot phase)	93.8% rise in Science interest; test confidence tripled	TIA; SAB Foundation Seed Award	Offline card-based games, tournaments and community activations

NOTHING WASTED

ZINZI NONTSIKELELO MANANA AND VEGETABLE BASKET

THE STROKE

Zinzi Manana was recovering from a stroke in Pongola when she discovered the gap she would spend the next several years filling. She needed food she could actually eat: unprocessed, chemical-free, genuinely nourishing. Her husband drove from Pongola to Richards Bay to find it: to Woolworths, to a farmer's market, to wherever organic food could be sourced. It was that far. For a woman whose recovery depended on her diet, the distance was not inconvenient. It was a systemic failure made personal.

She was already a farmer. She had crops. So she started making what she could not find: jams, condiments, and preserves from her own produce, using natural ingredients and traditional processing methods, without the GMOs, additives and artificial preservatives that line the shelves of every supermarket in the country. She tested them on herself first. When they helped, she started making samples. When those sold, she knew she had something. "If I could eat it and it was safe for me and it helped with my healing process," she says, "another person would get help."

FROM JOBURG TO PONGOLA

Zinzi was born in Pongola and left, as many do, for Johannesburg. She spent nine years as a branch secretary in recruitment. The salary barely kept pace with her growing family. The city was expensive and the work was the same every year. In 2012 she and her husband moved back to Pongola. The plan was to bake bread and supply hospitals. What they found instead was agriculture: a town where everything came from Johannesburg or Durban, where fresh produce was wilted by the time it reached the shelf, and where the gap between what people could buy and what they needed was obvious to anyone willing to look. They started farming. "Why not?" she says. "We were supplying them with spinach. We harvested this morning and delivered today. It was fresh and still crispy and I like that."

The farming relationship that followed was built over a decade. Her biggest clients today are Pick n Pay, Boxer, OK Foods, and Spar. The relationship began not with jams or condiments but with chickens. She walked into the local Pick n Pay in 2012 looking for fresh chicken and could not find it. She asked the butchery manager. The answer was always the same: waiting for stock from head office. "Every single week, it was the same response." So she started supplying them herself. Ten years of reliability as a poultry supplier opened the door to crops. Ten years of crops opened the door to value-added products. The relationship was the foundation. Everything she sells today is built on it.

WHAT SHE GROWS AND MAKES

Vegetable Basket operates across two product streams. The fresh crops side supplies the retailers directly: tomatoes, sweet potatoes, spinach, butternut, and chilli peppers, harvested in the morning and delivered the same day by refrigerated truck so the shelf receives produce that is still clean and crispy. The value-added side transforms what the fresh market cannot sell into what the health-conscious consumer wants: jams, jellies, nut butters, condiments, seasonings, and health crisps. Together the two streams form a closed loop. Nothing leaves the farm wasted.

> "OVERNIGHT SUCCESS HAPPENS OVER A 10 TO 15 YEAR PERIOD. JUST START WHERE YOU ARE, STAY CONSISTENT, AND REMAIN RESILIENT."
>
> **— Zinzi Manana, Vegetable Basket**

THE INNOVATION IN THE GRADE B TOMATO

The products themselves grew from a waste problem. When you farm tomatoes, not everything is perfect. The first-grade tomato is round, red, unblemished, and it goes to the retailer fresh. The B-grade has blemishes and becomes sun-dried tomatoes or tomato paste. The C-grade is small, imperfect, not red enough. It becomes tomato jam. Without agro-processing, that tomato is waste. With it, it becomes revenue. The same logic applies across the farm: marula trees on the property were dropping fruit every year with nowhere to go. Zinzi researched what marula could become. Now Vegetable Basket produces marula jelly, and a marula coffee substitute is in development. A butternut hot sauce. A mango jam without sugar. Sweet potato crisps. Thirty food products developed in total, fifteen tested and formally approved.

The question worth asking directly is whether this is innovation or simply clever farming. The answer lies in what agro-processing actually does to the economics of smallholder agriculture. Without it, a bad-grade tomato is a loss. With it, it becomes a product with a three-to-five-times revenue multiple per kilogram over fresh produce. Food waste on the farm fell by 35 per cent. Fresh-produce losses dropped from roughly 25 per cent to under 8 per cent within twelve months. The innovation is not the jam recipe. It is the closed-loop system that turns what the retail market rejects into what the health-conscious consumer seeks. Vegetable Basket is not an artisan food company that happens to farm. It is a farming operation that has closed the gap between waste and value.

MAKING HER OWN WAY

Operating from Pongola means operating with purpose. Every programme Zinzi has applied to, every ESD opportunity she has pursued, every incubation she has benefited from has required her to travel to Durban or Johannesburg, and she has made that journey consistently because she knows what is at stake. Recently she and her husband made the trip to Durban for the FNB Monetize Your Business pitch competition. They came home with a R20,000 cash prize. She carries that same energy into everything: the belief that if you show up, prepared and passionate, the result will follow. “You have no idea how much talent there is in rurawl communities,” she says. “It’s even better than what you find in the cities.” She is proof of that.

She has found support despite the distance. A Department of Agriculture grant funded the tunnels now going up on the farm, which will allow year-round tomato supply when Johannesburg’s production drops in winter. ADA has funded product testing. She has been through the BASALI Standard Bank Incubation Programme, the WENOSA Incubation Programme, and the Wakanda Food Accelerator, which works closely with SEDFA to guide food businesses through the compliance and Certificate of Acceptability process. “They give you all the knowledge you need and a roadmap on how to achieve those goals.” The help has come, almost entirely, from outside Pongola.

Inside Pongola, Zinzi is a pioneer. She is, by her own assessment, the only producer in the area doing this kind of agri-processing work. Every exhibition she attends, she goes with her husband. That visibility gap is something she is determined to close, one shelf placement at a time. She is building the proof of concept for what rural agri-processing can become, and she is doing it in full view of her community. “They’ll see my stuff in the shops one day soon,” she says. “And we will launch one day.” She says it the way someone says something they have already decided is true.

THE ROAD AHEAD

Zinzi’s current focus is compliance. She has obtained HACCP and food safety training, and the water standards. She is currently working towards the Certificate of Acceptability for her processing facility, the microbiological testing for other product lines, and the facility expansion. The current processing space is six by ten metres. The plan is a twenty by thirty metre steel structure with conveyor belts and proper equipment for each product line. Within twelve months she wants the Certificate of Acceptability, the structure complete, and a processing facility equipped to create at least 50 permanent jobs in the Pongola community. She has six permanent staff now. The ambition is not just about the business. It is about what a properly resourced agri-processing operation can mean for a rural community where economic opportunity is scarce.

Beyond that: supplying Woolworths. Exporting. A retail food shop, possibly in a mall, selling homemade products. Monthly hampers assembled to customer specification, collaborating with other innovators. Her husband is her business partner and the person who has made the journey alongside her every step of the way. Her mother was not happy with her new career path, but changed her mind when she saw what value-added products could become. The community is watching and learning. “They’ll see my stuff in the shops,” Zinzi says. She says it with complete certainty.

Her advice to other innovators has the weight of twelve years of early mornings in Pongola heat, of driving to Durban to pitch and coming home with prize money, of building a retail relationship one decade at a time: “It won’t happen overnight. Overnight success happens over a ten to fifteen year period. Just start where you are, stay consistent, and remain resilient.”

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SECTOR	LOCATION	PRODUCTS	WASTE REDUCED	AWARD
Agriculture / Agri-processing	Pongola, northern KZN	Tomatoes, butternut, spinach + 15 approved value-added lines	Fresh-produce losses down from 25% to under 8%	Best Smallholder Farmer 2023

SHE PACKED THE CHARCOAL IN SUITCASES

BUSISIWE MBANDA AND VOLCANIC EXPLOSION

AFTER THE FLOODS

Her product's name came from a volcano. Not a metaphor, not a brand consultant's suggestion: a volcano.

"You know the volcano?" Busisiwe Mbanda asks. "Yeah, that heat from the volcano. That is the way that our charcoal heats."

It is exactly the kind of name a person gives their business when they are not trying to sound like a business. When they are simply describing what their product does and trusting that the word is enough.

The business itself began after the April 2022 floods. Inanda, the area of Maphephetheni where Busisiwe lives, was hit hard. Trees fell across roads. The community came out to clear them. Busisiwe looked at the piled-up trunks and branches blocking the road and had a different thought from most people around her. This was not waste, but instead, it was feedstock. The disaster had delivered the raw material for a business she had not yet imagined. She started making charcoal briquettes.

WHAT VOLCANIC EXPLOSION DOES

Volcanic Waste-to-Fuel Briquette Technology converts wood waste and invasive plant biomass into charcoal briquettes. The feedstock comes from two sources. The first is Busisiwe's own tree-felling services: every tree removed generates wood waste that goes directly into briquette production rather than to a dumping site. The second is alien invasive vegetation, which causes active damage to indigenous trees and ecosystems across KwaZulu-Natal. Collecting it for briquette production addresses the environmental problem while simultaneously creating the raw material for a saleable product. The material is dried, crushed, mixed, and compressed into briquettes using manually fabricated equipment built by a neighbour who welds, from scrap steel sourced at a salvage yard.

Busisiwe notes that the briquettes burn hotter and longer than commercially produced charcoal. A bag sells for R80, containing 4 kilograms. The production rate at the current manual capacity is approximately ten to fifteen bags of briquettes per two hours of processing. The innovation is a circular system: waste that would otherwise be burned in the open or left to rot becomes a clean cooking fuel, and the process of collecting it contributes to land restoration and reduced illegal burning. Busisiwe does not yet have a dedicated farm for sourcing agricultural waste, collecting and transporting bulk materials from multiple sites remains a real logistical challenge, but building that supply chain is part of the longer-term model she is working towards.

> "NO ONE UNDERSTANDS YOUR DREAM LIKE YOU DO, SO LET THE WORLD SEE IT, OR IT MAY DIE WITH YOU."
>
> **— Busisiwe Mbanda, Volcanic Explosion**

BUILT WITHOUT A BUDGET

Busisiwe has not received formal funding. The business has been sustained by personal savings and support from family and friends. The equipment she uses was built by hand because she could not afford to buy it. The charcoal grinder and briquette press were designed in conversation with her neighbour-welder, fabricated from scrap metal pieces she sourced from a salvage yard, and assembled based on a vision of what would work rather than a blueprint. And they do work. Getting to exhibitions without a vehicle required a particular kind of determination. She would pack her briquettes into suitcases, carry them two to three kilometres while walking to the taxi rank, then transfer at a bus stop while travelling into the city. At the other end, if Busisiwe had anyone with her, they would help carry. Often, she did not. The logistics consumed money she could not easily spare on the wages for helpers and the bus fare, without a guaranteed income at the end of the day.

Despite these constraints, recognition has accumulated. She was selected among the top 21 women out of 392 applicants for Innovate Durban's SHEshisa Programme. She received a Durban Chamber award, supported by SLG, which sponsored her participation. She was selected in the top 10 of the Market Access Africa programme and placed in the top 15 at the Global Entrepreneurship Festival. Media coverage includes uKhozi FM, Vibe FM, Ikhwezi Radio, Isolezwe, and She Unites Africa Magazine. However, none of this translated into the one thing she actually needs: production equipment and a structure she can work inside when it rains.

THE BOY FROM BALINDI WELFARE

The impact story Busisiwe tells is about a young man from Abalindi Welfare Society, a local social welfare institution, who had no employment. Whenever she calls him for temporary production work, he drops everything and comes. He is paid fairly. He leaves happy. With that money he can buy food, buy clothes, attend church. "There is no way that we will make him work, taking advantage that maybe he is an orphan," she says. "He is always happy to come and assist whenever we call him."

It is a modest story by the standards of the bigger claims in this publication. But it is also the most honest account of what a business at this stage of development actually means to the immediate community around it: one young man who has somewhere to go when she calls, and something to show for it at the end of the day.

Her longer vision is larger. Busisiwe wants to build an industrial hub in Inanda, a proper production facility that creates permanent jobs, reduces crime in the area through economic activity, and becomes a training ground for others who want to learn what she has learned. She is in early discussions with eThekwini Municipality's tree-felling team about a collaboration that could significantly expand her feedstock supply. If a designated space could be made available for trees collected by the municipal team, Volcanic Explosion could access and repurpose material that is currently being taken to dumping sites and burned, contributing to air pollution. Where others see waste going up in smoke, she sees feedstock. She has interested export customers in Nigeria waiting. However, she cannot yet meet them because she cannot yet produce at the scale a 10-tonne monthly order requires, and she lacks the export certification the market demands.

A CIRCULAR SYSTEM, NOT JUST A PRODUCT

Charcoal briquettes are not a new product. What Volcanic Explosion built is a circular system that other briquette producers have not attempted in this context. The feedstock is waste material, including alien invasive vegetation that causes active environmental damage if left unmanaged. Every tree removed through Busisiwe's own tree-felling services generates wood waste that goes directly into briquette production rather than to a dumping site. Collecting invasive plants for briquette production simultaneously addresses the environmental problem, contributes to land restoration, and produces a clean cooking fuel that reduces the dependency on open-field burning. That triple function, operating in a township area with no formal waste infrastructure, using self-fabricated equipment built from salvage-yard steel, is what makes this an innovation and not just a micro-enterprise.

THE INDUSTRIAL HUB

The constraints that limit Busisiwe are not conceptual. Her business model is sound and the product is proven. The market interest is real, including international enquiries that have already been lost because production capacity could not match demand. What is missing is electrical production equipment, an enclosed production structure so that rain does not stop work, and a laptop capable of running basic financial management software. These are not large asks in absolute terms. They are the difference between a business that survives on personal savings and one that can fulfil contracts.

She is enrolled in a UKZN economic development programme with business training continuing through the end of March 2026. The SHEshisa Programme provided financial management training that she has not yet been able to implement because she does not have a device capable of running Excel. The knowledge is there, however, the tools are not. Her advice to other innovators is the line that kept her going: "No one understands your dream like you do, so let the world see it, or it may die with you." The April 2022 floods that inspired her business were a disaster. The trees that fell across the roads in eMatikwe Inanda were a problem for everyone else. For Busisiwe, they were the beginning of something. She packed the charcoal in suitcases and got on the bus. That is still what she is doing.

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SECTOR	LOCATION	EQUIPMENT	RECOGNITION	STAGE
Waste-to-Fuel / Manufacturing	eMatikwe Inanda	Manually fabricated from salvage-yard steel	Top 21 of 392, SHEshisa; Top 10 Market Access Africa	Proven model, awaiting production equipment

THE POSTURE CHANGES

NONTOBEKO NDLOVU AND ABAQHAKAZI TRADING

TWO SCHOOLS, ONE QUESTION

Nontobeko Ndlovu grew up in Clermont Township and attended a private school called John Wesley for her primary school education. She noticed something. The private school had its own uniform shop, on the premises, where you could only buy that school's specific uniform. Parents did not queue in town. They did not pay taxi fares. The uniform was part of the school's identity, and the school managed the process of getting it to families as a service, not an administrative burden. When she looked at township schools and saw parents travelling to town, queuing, paying for transport, spending an entire morning on a problem that did not need to be that complicated, she had a straightforward question: why should it be different here? "Charity begins at home," she says. "I've seen how it works at private school. So why not implement the same systems?"

Abaqhakazi is an isiZulu word that means bloom, sparkle, shine. It is a word for all the bright things. The name was chosen deliberately: the business is about what clothing does to a person before they have even left the fitting room. "Once you try to fit a child a new uniform or a new t-shirt," Nontobeko says, "the first thing you see is posture. The posture changes." From that observation, she built a company.

WHAT ABAQHAKAZI TRADING DOES

Abaqhakazi Trading brings the uniform store to the school. Rather than requiring parents to travel to town, the company visits school premises, typically twice a week, to take orders via WhatsApp and phone calls, carry out fittings during break times, and supply uniform items on site. Parents who cannot come during school hours can arrange collection or enquire by phone. There are no queues in town, no taxi fares, no extra administrative burden for the school. For elderly grandparents who are caring for grandchildren, the model is particularly significant: the uniform comes to them.

The company currently supplies three active schools: Vezamafa Primary School in Clermont, where it has served approximately 140 families; Khulugqame Full Service School, also in Clermont, where it has served approximately 800 families; and Resmount Primary School, where it has served approximately 100 families. A fourth school, Oceanview Development Centre in Brighton Beach, is in the design phase. Khulugqame has a regular Tuesday supply day and Vezamafa has a Friday supply day. The business does not operate from a fixed retail shop, but rather it operates from the schools themselves.

The Oceanview partnership has a particular significance. Oceanview Development Centre is a school for children with autism, and the collaboration came directly out of SHEshisa. Nontobeko and Janine Reddy, the founder of Oceanview, were placed in the same mentor group under Dr Augusta Dorning. Through their conversations, a collaboration took shape.

"I noticed how much she emphasised sensitivity for her students," Nontobeko says. "Since we co-design the uniform with clients it was easy to be on the same page and move to the next step. I learned a lot from her." The process of finding the right materials has required careful research and communication. It is a different kind of brief, and Nontobeko approached it as one.

> "ONCE YOU TRY TO FIT A CHILD A NEW UNIFORM OR A NEW T-SHIRT, THE FIRST THING YOU SEE IS POSTURE. THE POSTURE CHANGES."
>
> **— Nontobeko Ndlovu, Abaqhakazi Trading**

Beyond supply, Abaqhakazi has introduced two innovations into the process of designing uniforms. The first is co-design: rather than sending schools a catalogue, Nontobeko and her business partner Sanele Hlongwana sit with the school and design the uniform together, bringing the school's identity back into the clothing rather than assigning them whichever generic design happens to be available. The second is the use of Gemini AI as an image-generation tool to visualise multiple design options quickly and cheaply. Previously, a school wanting to see different design options would require multiple physical samples to be produced, a process that took up to two weeks and consumed significant material costs. Gemini generates images from colour and design inputs, which are sent to the client for selection. The two-week process now takes two days. A sample is only produced once a design has been approved.

The question worth addressing directly is whether this constitutes innovation or simply a different way of running a uniform business. The answer lies in understanding what the existing system was actually doing to families.

Township school uniform supply had been built around town-based retail for decades: the same model, unchanged, regardless of the practical cost it imposed on parents who could least afford it. Nontobeko did not improve that model. She replaced the underlying logic entirely. The distribution chain was inverted so the store goes to the community rather than the community going to the store. The design process was rebuilt so schools receive a unique identity rather than a catalogue selection. The sampling process was redesigned so AI replaces physical production runs. The innovation is not in the sewing. It is in the question she asked: why should a township school family have a worse uniform-buying experience than a private school family? Nobody had a good answer. So she built one.

THE ROAD TO THIS POINT

Nontobeko holds a Cost and Management Accounting diploma from Durban University of Technology, and she is clear about why that matters: it aligns directly with manufacturing. When other entrepreneurs ask why she does not simply take a corporate job and run the business as a side hustle, her answer is straightforward. "Starting a business is like having a newborn baby that needs to be taken care of and monitored 24 hours a day, seven days a week, until it is able to take care of itself. I can't be a part-time parent for my baby." Most people, she says, look for jobs to create stability for themselves. Her goal is to create stability for herself and for others.

What kept her moving forward were the validations: a Hollywood Bets ESD Programme grant that provided an embroidery machine and stock; a R5,000 grant from WRSETA; participation in the SHEshisa Programme; and recognition from Innovate Durban. The embroidery machine matters in practical terms. Before acquiring it, embroidery had to be outsourced, which meant handing over quality control and accepting delays. The machine removes that entire calculation. Embroidery happens in-house, on Abaqhakazi's own timeline.

The first year of the business included a valuable lesson. The company received a loan from a friend and invested almost all of it in a large supplier, hoping to avoid being caught short on stock. However, the supplier did not deliver on time. "Everything we go through, we take it as a lesson," she says. "It makes us stronger." In December 2025, the company secured a dedicated space with machinery at St Clement Home Based Care Project in Clermont. The business is growing into its own infrastructure.

BUILDING THE NEXT PERSON

The impact story Nontobeko tells is not about a transaction. It is about a young man from outside Clermont who came to her wanting to work. She could not hire him yet. What she could do was teach him.

He knew alterations. Nontobeko taught him patterns, jackets, trousers, and how to use the overlock machine. He was afraid to touch the overlock at first. It cuts fabric, and a mistake is irreversible. She let him start with tunics while he found his confidence. “The following day I’ll tell him: do everything I taught you yesterday. If you get stuck, let me know.” The improvements have been significant. She describes him as the kind of person who will one day teach others. Her aspiration for him is that he becomes a supervisor.

The company has also supported a mother who, after the loss of her husband, was unable to leave her home due to cultural mourning rites. Through a simple WhatsApp exchange, the team co-ordinated her children’s entire school wardrobe. Fittings were handled on-site at the school and the children returned home with their completed uniforms. She shared that the service “provided her family with dignity and ease during their most difficult transition.” These are not transactions the company designed or planned for. They are what happens when you are embedded in a community rather than serving it from a distance.

THE PRIME THREAD SESSION

When Abaqhakazi Trading acquired its new space and started looking for people to work the machinery, Nontobeko discovered a skills gap she had not anticipated: sewing skills are rare in her community. The business that needs machine operators cannot find them. Her response was to start something new. The Prime Thread Session is a textile education initiative, run without a formal teaching certificate, aimed at anyone interested in understanding what the textile industry actually involves. The goal is to demystify the sector and grow the talent pool that Abaqhakazi, and businesses like it, will eventually need.

The longer vision extends beyond schools. Nontobeko sees the same posture-change effect she observes in children working equally well in company environments: employees who feel confident in what they wear bring that confidence to their work. Company uniforms are the next market. The model that proved itself in Clermont schools will move to corporate clients.

Her immediate goal is to own the space the business operates from rather than renting it. Her long-term goal is for the company to run without requiring her constant presence. “I want it to be like a shop where employees come in, they know they have to come at a certain time, do their job and go home. And I don’t need to be here physically. But the company has to keep running.” She reached for a quote from Robin Sharma to describe the stage she is in: “change is messy in the beginning but beautiful at the end.” She said it with the tone of someone who is right in the middle of the messy part, and is not particularly worried about it.

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SECTOR	LOCATION	FAMILIES SERVED	SUPPORT	NEXT PARTNERSHIP
Manufacturing / Textiles	Clermont Township, Durban	1,040+ families; uniforms co-designed with each school	Hollywood Bets ESD, WRSETA, SHEshisa	Oceanview Development Centre

THE ENVIRONMENT HE GIVES THEM

SPHIWE KHUZWAYO AND KZN TECH HORIZONS

THE PROBLEM HE SAW

Sphiwe Khuzwayo, who is now a Software Developer and Systems Administrator, began his career as a technician. The work took him across KwaZulu-Natal, into townships and rural areas where young people were capable and eager to learn but without resources, without connections, and without anyone pointing them towards each other. What he found, repeatedly, was the same failure: talented people working alone on problems that overlapping talent in the next community was also working on, with neither party knowing the other existed. “People work in silos because they don’t understand the importance of collaboration,” he says. “And then talent goes out of the province because of job opportunities.”

That observation became a decade of work. Sphiwe is not primarily a technology trainer, though he trains. He is not primarily a hackathon organiser, though he runs them. He is, at his core, a connector: the person who builds the conditions in which isolated talent finds itself. KZN Tech Horizons is the infrastructure he has built to make that possible at scale.

THE ENVIRONMENT HE CREATES

A typical KZN Tech Horizons programme day happens in a school, community hall, library, or innovation space, sometimes in an environment where this kind of exposure is happening for the very first time. At the beginning of the session, the room is quiet. Some of the young people have never touched a computer in a meaningful way. Others are unsure what coding even means. But something shifts as the day progresses. Hands go up. Small groups form naturally. There is visible excitement when someone gets their first piece of code working. “That transformation, even within a few hours,” Sphiwe says, “is what makes the work meaningful.”

What he is building is not the training. It is the room itself: the conditions in which people who thought they did not belong in technology discover that they do. “Innovation is not about where you start,” he says. “It is about the environment you are given to grow.”

At one hackathon, a young woman who was studying social sciences entered because something in her community was broken and she could not stop thinking about it: people in her area did not know where to go for basic health services, and misinformation was filling the gap. Over 42 hours, working with a team she had just met, she built a mobile-first platform that mapped nearby clinics, provided verified health information in plain language, and was accessible to anyone regardless of education level. After the hackathon, she kept going. She connected with developers she had met during the event and began exploring how to pilot the solution in her community. She had started the weekend unsure of herself. She ended it pitching a technology solution to a real public health problem, and she did not stop.

> “INNOVATION IS NOT ABOUT WHERE YOU START. IT IS ABOUT THE ENVIRONMENT YOU ARE GIVEN TO GROW.”
>
> **— Sphiwe Khuzwayo, KZN Tech Horizons**

THE CONNECTIONS HE MAKES

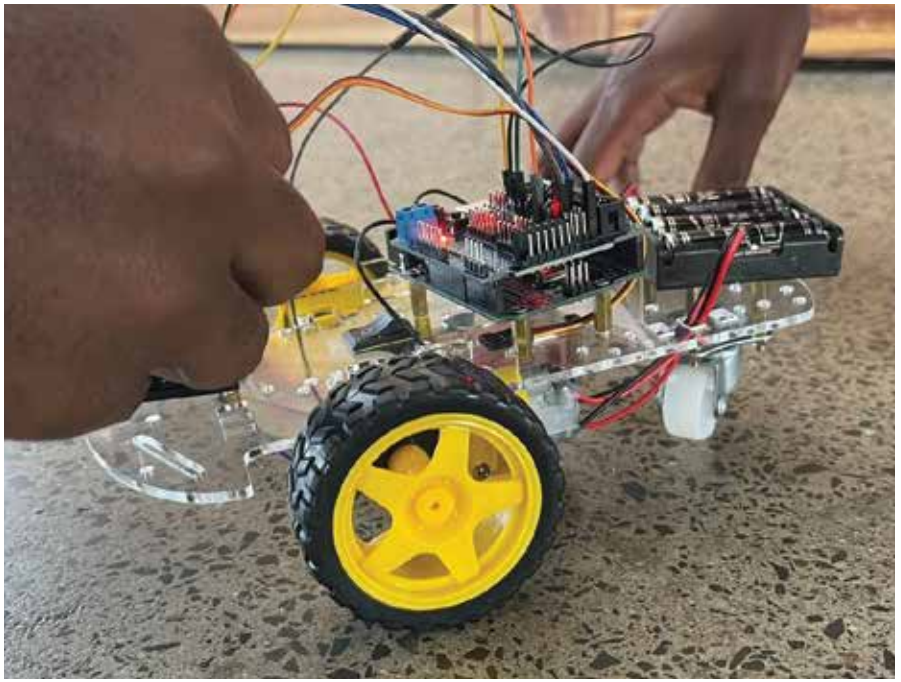
The ecosystem insight that drives Sphiwe's work is not abstract. Two young innovators he connected illustrate it precisely. One was building a school-based digital learning platform focused on coding and STEM education. The other was building a content delivery system designed to make educational material accessible in low-connectivity environments. Neither knew the other existed. When Sphiwe introduced them, they realised their work was not overlapping but complementary: content and delivery infrastructure, two halves of the same solution. They integrated their work and went on to participate together in a hackathon outside KwaZulu-Natal. Neither would have made it there alone.

The innovation case for KZN Tech Horizons is precisely this. Most skills programmes deliver training and stop. What Sphiwe has built is an ecosystem: hackathons that identify talent, mentorship infrastructure that develops it, a matching platform that connects it, a mobile lab planned to take it to communities that cannot come to a fixed hub, and a partner network, including a recently signed agreement with Cisco Training Academy, that provides credentialled pathways beyond the province. The numbers reflect it. More than 400 young people have come through KZN Tech Horizons programmes and related initiatives. The organisation has supported and participated in 8 hackathons and 3 innovation challenges. A weekly radio segment, Injection of Technology on Inanda FM, reaches between 51,000 and 90,000 listeners and has been running for six months, extending the reach of the work far beyond what any single event can achieve.

THE ROAD SO FAR

In 2025, the Office of the KZN Premier awarded KZN Tech Horizons the Smart Education and Digital Skills Recognition: an acknowledgement of the organisation's contribution to the province's innovation landscape. For Sphiwe, the recognition landed as both a milestone and a motivator. He went home and asked himself a clarifying question: "What does this actually change for the young person in a rural school who still doesn't have access to a computer?" The answer sharpened his focus. Visibility matters, but it is a means to an end. He took the moment as a recalibration: look at what has been accomplished in eight months and ask what is possible in eight years.

Funding has come primarily from Sphiwe's personal resources, supplemented by in-kind support from Asante Solutions and the Centre for Public Service and Innovation. That resourcefulness has kept the work moving forward without waiting for institutional support to arrive. "When a young learner writes their first line of code, or someone returns and says this programme changed how they see their future," he says, "walking away becomes very difficult." It never has.



THE ROAD AHEAD

Sphiwe's plans centre on expansion: more schools, more institutions, more communities, more hubs across KZN and beyond. The Cisco partnership opens cross-border reach. A mentorship matching platform, allowing mentors and mentees to find each other online, is in the final stages of preparation for launch. His vision for the province is specific: "KZN has the potential to be the leading innovation hub in South Africa." He points to the quality of talent the province produces and the scale of the opportunity if universities, government, the private sector, and innovation communities are properly connected.

His advice to other innovators is shaped by the isolation problem he has spent a decade solving: stop working in silos, attend tech events, build metrics, and use the platforms that exist to support you. "Innovation requires patience and resilience." The hackathon woman who built a healthcare platform in 42 hours did not start that weekend as an innovator. She became one because of the environment she was given. Sphiwe builds that environment, every time, for the next person.

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SECTOR	YOUNG PEOPLE TRAINED	HACKATHONS	PARTNER	AWARD
EdTech / ICT	400+	8 hackathons, 3 innovation challenges	Cisco Training Academy	KZN Premier Smart Education and Digital Skills Recognition 2025

RESTART

NAFEESA ALIBEDI AND CREATIVE TECH SOLUTIONS

THE STUDENT WHO STAYED BEHIND

During COVID, Nafeesa Alibedi was volunteering to mentor students in online sessions from her room at home. It was a small virtual class, cameras mostly off due to connectivity problems, students from different institutions. She did not see herself as a teacher. She was simply sharing what she knew. At the end of one session, a student stayed behind and turned on her microphone. She told Nafeesa it was the first time she had truly understood the topic. Then she started asking questions: about studying tech, about building a career, about what was possible.

"Her curiosity and excitement stood out," Nafeesa says. "At that moment I realised this was more than just volunteering. It was about giving students access, confidence, and direction." Sitting in her room, she could see the real impact she was making. That conversation shifted everything. It is the moment Creative Tech Solutions began.

BEFORE 2017

Nafeesa was not born into technology. Before she started her entrepreneurial journey in 2017, she was a student exploring her path, trying to understand where she could create opportunities for herself. She had no formal training in tech. Her skills were self-taught: hours of YouTube tutorials, free online courses, consistent practice, experimentation. Through the National Youth Development Agency she found entrepreneurship development programmes that gave her foundational business knowledge, even though her first venture eventually failed. That period of learning and failing and learning again built her confidence and laid the foundation for everything that followed.

When she started Creative Tech Solutions in 2017, her family did not fully understand what she was building. They were concerned about stability and often encouraged her to pursue a corporate job. She was job-hunting and building the business at the same time, sometimes having to keep the entrepreneurship quiet. "It was a challenging balance, filled with uncertainty and pressure." Over time, as opportunities arrived and progress became visible, their perspective shifted. They are proud of her now, even if they do not fully understand everything she does.

WHAT SHE NOTICED IN THE SUPERMARKET

Creative Tech Solutions is an educational technology company whose mission is to bridge the digital gap: equipping learners, women, and children with skills in artificial intelligence, data science, and cybersecurity. Two products are moving towards launch under the SmartLearn brand.

The first is SmartLearn's AI-powered learning management system. The platform integrates adaptive AI tutoring, text-to-speech, and voice recognition to make content accessible across different learning needs. An AI tutor guides learners through content. A watch partner monitors engagement and progress. A lab provides space for practical applied work.

> "FROM VOLUNTEERING, IT BECAME A PASSION. I STARTED SEEING THE CHALLENGES IN EDUCATION AND ASKING: HOW CAN I INTRODUCE SOMETHING LOW-COST THAT HELPS LEARNERS IN UNDERSERVED COMMUNITIES ADAPT TO STEM CAREERS AT A VERY YOUNG AGE?"
>
> **—Nafeesa Alibedi, Creative Tech Solutions**

The logic: learners in underserved communities need not just knowledge delivery but the ability to demonstrate skills that translate into employment or entrepreneurship.

The second product came from a moment in a Checkers store. Nafeesa was in the children's section when she noticed the colouring books on the shelves: popular, affordable, and almost entirely non-educational. She went home and started drafting. The result is a range of STEM-focused children's books for ages seven to twelve, designed to introduce young readers to technology and science careers at the age when curiosity is still intact, before a child from a rural school has already decided that the only options are doctor, lawyer, or teacher.

The question worth asking is what makes this innovative rather than simply useful. The EdTech market is crowded. What SmartLearn addresses is a specific double gap: young people in underserved communities lack access to skills training, but they also lack access to career awareness at the age when choices are still open. Most platforms address the first. SmartLearn addresses both. The AI platform delivers skills. The children's books reach the seven-to-twelve age group before the narrowing happens. That dual approach at different life stages is what distinguishes this from a learning management system with better marketing.

THE YEAR EVERYTHING STOPPED AND RESTARTED

Nafeesa started Creative Tech Solutions in 2017 and spent years in a largely solitary undertaking. "No one was listening to me. No one knew what I was doing. I was the black sheep in the family." She joined mentorship programmes, built her understanding of the funding landscape, and kept going.

In 2024, two things happened simultaneously. The first was collapse. A significant income loss forced her to leave Durban and relocate to her small hometown, three hours away. Her days that year were structured around a Data Science scholarship with ExploreAI Academy: attending online classes, completing projects, strengthening her technical skills. Outside of studying, she was rebuilding Creative Tech Solutions from the ground up, sending emails to potential clients, researching market needs, refining ideas. With limited resources she had to be intentional and disciplined. That period forced her to rethink the model entirely: from informal teaching and once-off sessions to a structured, scalable approach based on digital skills training and programme-based learning.

The second thing that happened in 2024 was validation. She was accepted into the Technology Innovation Agency Grassroots programme and received R200,000 in funding. "TIA really opened a big door for me," she says. "When we finally had that product, we started knocking on other doors and they saw the product." She returned to Durban on 1 January 2025 with income restored, a clearer business model, and a rebuilt company. "I still had my focus. So I started afresh." What followed was a run of pitch competition recognition: third place at the University of Johannesburg business plan competition; top participant in the MTN Women in Digital Business 2025 programme; finalist in the KZN Premier's Inkunzi'isematholeni Business Pitch Competition; second place in the Charged Up Entrepreneurship Africa Network Pitch Competition powered by Absa; fourth place in the Ford Philanthropy Fellowship. The company is additionally backed by Orange Corners, a Dutch organisation supporting entrepreneurs in emerging markets.

THE STUDENT FROM THE RURAL COMMUNITY

SmartLearn has already reached over 500 learners across KwaZulu-Natal through pilot programmes, with 60 per cent female participation. Pilot data shows a 40 per cent improvement in digital literacy scores and a 35 per cent increase in STEM career interest.

One learner stands out. A high school student from a rural community, she struggled with limited access to digital resources and had low confidence in STEM subjects. Through SmartLearn's AI-supported training and mentorship, she improved her understanding of coding and data concepts. Today she actively participates in tech projects, mentors her peers, and is working towards a career in software development. Her journey reflects exactly what SmartLearn is designed to do: transform access, build confidence, and unlock opportunities that the system had not yet made visible to her.

THE ROAD AHEAD

The launch target for the full SmartLearn platform is June 2026, with Amazon and similar platforms as the primary distribution channel for the children's books, alongside B2B partnerships with companies running corporate social investment programmes. Nafeesa's five-year ambition extends into the SADC region, where she has identified the same gap: young people eager to enter technology but lacking structured, affordable, and practical learning pathways. "Rather than starting from scratch," she says, "I see an opportunity to adapt my existing model to these markets, offering scalable, online-first programmes that can reach students beyond borders."

Her heart, she says, remains in KZN. She wants to scale in Durban first, with partners willing to co-invest in what she has already proven works. Her advice is distilled from the experience of building through two collapses: "Don't rush to build your solution. Always do your research and take your time." The woman who once kept her entrepreneurship quiet from her family now has a platform that has reached 500 learners, a scholarship in data science, and a model she is preparing to take across a continent.

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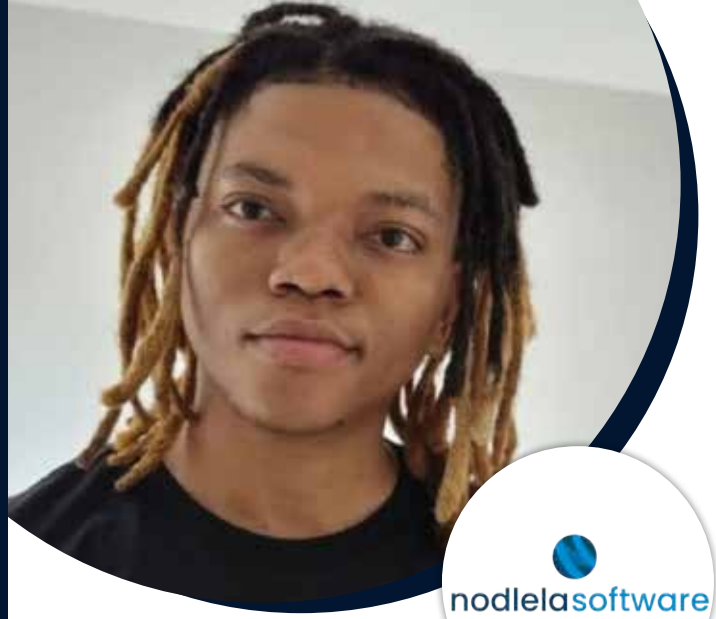
SECTOR	LOCATION	LEARNERS REACHED	FEMALE PARTICIPATION	RECOGNITION
EdTech / AI	Reservoir Hills, Durban	500+	60% of pilot learners	M&G 200 Young South Africans



BUILT AT 3AM

SIVIWE XAKAZA AND FUNDANI

THE WAPSITE

Siviwe Xakaza discovered software engineering in Grade 8. He wanted to build a forum for his classmates and stumbled across a WirelessApplication Protocol (WAP) site builder, back when WAP sites were still a thing. To add the functionality he wanted, he had to write JavaScript. That was when he fell in love with programming. He was lucky, and he knows it. Most students from rural areas have never heard of software engineering, or most STEM fields at all. That gap is a large part of why Fundani exists.

Siviwe grew up in Mahlabathini, a small area near Ulundi in northern KwaZulu-Natal: a part of the province where the careers anyone at school could name were doctor, lawyer, or teacher. When the time came to apply to university, he did what most students in that situation do. He listed the courses he had heard of, filled in the forms for the Central Applications Office, and waited. What Siviwe could not do was travel from campus to campus to stand in admissions queues, looking for a course with space that he actually qualified for. Many of his peers tried, however, most came home without a placement and, in some cases, without the money they had left with.

He went on to become a software engineer, working at Amazon Web Services, Standard Bank, and doing DevOps and cloud engineering for a number of companies. That background is the foundation of how Fundani is built: the architecture, the infrastructure, the way he thinks about scale. The platform he is building in the hours after five and sometimes until three in the morning is not a side project. It is a professional-grade system built by someone who has spent years working at that level.

WHAT FUNDANI DOES

Fundani, the name means “learn” in isiZulu, is an education-access marketplace built by Nodlela Software, Siviwe’s company. Institutions create verified accounts and list every course they offer, specifying academic entry requirements for each. Students create a single account, enter their Matric results, and search. The system shows every course available together with a clear eligibility assessment: not just whether they qualify, but which requirements they meet and which they fall short of.

Applications flow directly through the platform. Institutions review incoming applications against criteria the system has already checked, and accept or reject in real time. Students receive push notifications. This means that when a student arrives on campus, they have already been accepted. The queue is gone.

The contrast with the Central Applications Office (CAO) is deliberate. CAO is province-limited, allows only a fixed number of applications, has a user interface that is widely regarded as outdated, and returns feedback towards the end of the year, and often the following year. Fundani is mobile-first, real-time, and built for a student who has never had the luxury of waiting.

> “SEEING WHAT HAS BEEN PRODUCED, I AM PROUD AND DO NOT REGRET USING THE TIME THAT I SHOULD HAVE SPENT WITH MY FAMILY TO BUILD THIS. THIS WILL HELP MILLIONS OF SOUTH AFRICAN STUDENTS.”
>
> **— Siviwe Xakaza, Fundani**

THE CAREERS NOBODY TOLD HIM ABOUT

One element of Fundani extends beyond admissions logistics and speaks directly to the gap Siviwe experienced in his own schooling. When students create an account, they are asked not only about their Matric results but about their interests and what they imagine doing after university. The platform uses AI to generate course recommendations, surfacing options the student may never have encountered: fields they did not know existed, with information on the industries and careers each one leads to. For a student from a rural school with three career templates eeavailable to them, that feature is not a convenience. It is an expansion of the possible. Siviwe was lucky enough to find programming through a WAP site in Grade 8. Fundani is built on the recognition that most students are not that lucky.

TWO YEARS AT 3AM

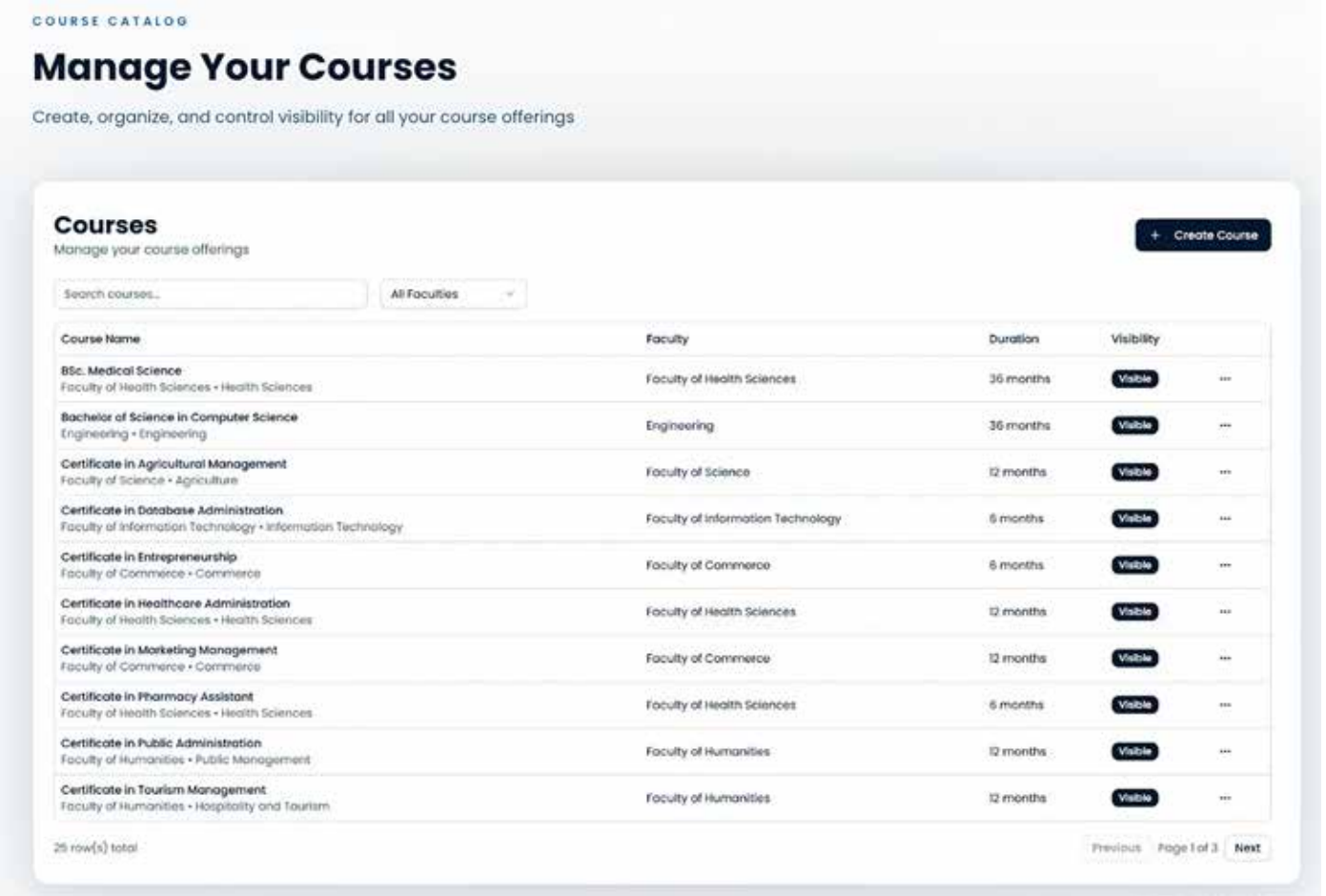
Siviwe has been working on Fundani for two years, building after hours while employed full-time. He has rebuilt parts of the platform several times. The reason is specific: he would put the project down for a few months, return to it, and find that he was a better engineer than when he had left. Code he wrote six months ago would not meet the standard he held now. So he would start that section over. “It’s frustrating,” he says, “but it’s also how the product got better.” Both the mobile and web versions are now built. The platform is in its final stages, with onboarding of institutions set to begin at launch.

The database and hosting are funded from his salary. There are no investors, no grants, and no team beyond the founder. Institutions have been in conversation but have not been formally onboarded yet: Siviwe did not want to lock anyone in before the product was ready. The target for year one is 10,000 students reached.

The personal cost is stated plainly. Building alone at the hours he keeps means the people closest to him get what is left of his time and energy. He does not say that lightly.

HOW IT SUSTAINS ITSELF

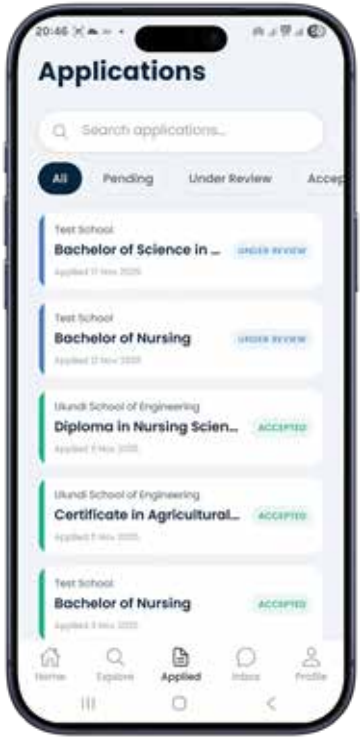
Fundani’s commercialisation strategy is designed to avoid creating a paywall between students and opportunity. A nominal once-off activation fee unlocks a student account. Institutions list their courses at no cost, ensuring the platform has the breadth of content it needs to be useful. Revenue comes from two paid institutional features: promoted course listings, which allow institutions to push specific courses to the top of student search results, and workflow automation for institutions that want to automatically process applications from students who meet all entry requirements. Both revenue streams serve the institution, keeping the cost of access as low as possible for the students the platform is designed to help.

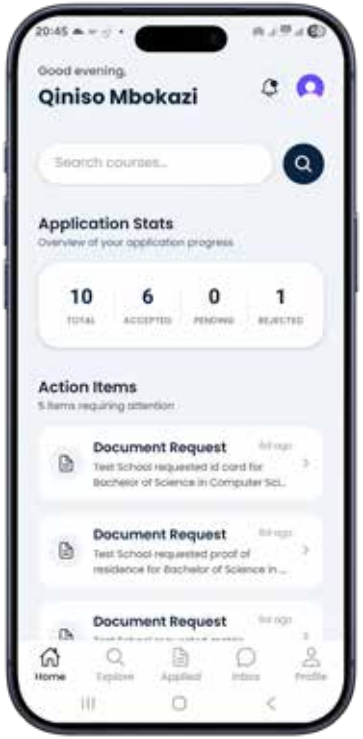


THE ROAD AHEAD

Once the platform launches, Siviwe's immediate priorities are finding developers to hire and building marketing capacity. His wish for KwaZulu-Natal is specific and practical: more hackathons. He has attended them in Johannesburg and Cape Town and seen directly what they produce. "For some reason KZN is not really big when it comes to tech or innovation. It's usually Cape Town and Joburg." He does not say this as a fixed observation about geography. He says it as someone who built a nationally relevant platform from Mahlabathini, working after five in the evening, because the problem was real and the solution was possible.

Siviwe's advice is economical: build it because you had the same problem yourself. He did. The door he is building is for the student who came after him: the one still queuing, still unsure what courses exist, and still unaware that the field they would love most is one their school never mentioned.





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SECTOR	PRODUCT	BUILT FROM	TARGET AT LAUNCH	BACKGROUND
Software / EdTech	Fundani	Mahlabathini, northern KZN	10,000 students; institutions onboarding at launch	Amazon Web Services, Standard Bank

THE CLINIC COULD NOT REACH THEM. HE COULD.

PHAKAMANI NDLOVU AND PHAKAMANI EMPOWERMENT

VALENTINE'S DAY, 2011

On 14 February 2011, Phakamani Ndlovu went to McCord Hospital in Durban for a voluntary medical male circumcision. He was their first patient of the day. The service, he later wrote on the hospital's Facebook page, was phenomenal. He felt like a king. Two days after that post, the clinic manager called him in. A young man from a rural area, she told him, who had gone public about undergoing circumcision when most men were too ashamed to admit it, was exactly who she was looking for. Would he become an ambassador for their programme?

Phakamani said yes, spent three months learning with the marketing team, and started recruiting. What he found in that queue changed everything. Men who wanted circumcision, the procedure that research had shown reduced HIV transmission by 60 per cent, were being turned away because they had untreated sexually transmitted infections they had never disclosed or sought treatment for. The shame was so thick you could trace its consequences in a waiting room. Phakamani looked at that queue and saw a gap. He has spent the fourteen years since then filling it.

WHAT THE PROGRAMME DOES

Phakamani Empowerment Pty Ltd delivers on-site Social Behavioural Change and Communication (SBCC) sessions at workplaces, colleges, universities, and taxi and truck communities across KwaZulu-Natal. The model is built on a specific insight: public health campaigns about sexual health were, in Phakamani's observation, almost entirely aimed at women. In hospital waiting rooms, the education materials covered breast cancer, cervical cancer, antenatal services, and menstruation. Men sat in those same chairs and heard nothing that addressed them. "They felt they were not valued and important in terms of healthcare facilities," he says. "When I started Phakamani Empowerment, I wanted to focus on men so that they can be included in these campaigns and feel valued as well."

The programme does not replicate clinic services, but rather, it prepares people to use them. A typical wellness day begins with a lecture and Q&A session covering STIs, symptoms, prevention, and whatever health risks are specific to that workplace's industry. A private consultation room is set up alongside, staffed by Dr Sanelisiwe Shabalala, where individuals can undergo STI screening, BMI assessment, and checks for diabetes and hypertension. The session is tailored to context: truck drivers face different risk profiles from university students; a mining company's workforce needs different framing from a call centre's. "We tailor-make it to the specific workplace," Phakamani explains. The measure of success is not attendance alone. It is the calls that come after, the testimonials from student wellness co-ordinators saying that clinic presentations for STIs have declined since the intervention.

The question worth addressing directly is whether this constitutes an innovation or a service. The clinical knowledge Phakamani deploys is not new. What is new is the distribution logic. Sexual health campaigns in South Africa had been designed around clinics and around female patients. Men attended those same clinics and sat through sessions that did not address them, then left having received nothing that changed their behaviour. Phakamani's model inverts the system: it goes to where men already are, speaks to them as a specific and underserved audience, and tailors the content to the risk profile of each environment. A truck stop session looks nothing like a university wellness day. KwaZulu-Natal recorded 96,280 new STI cases in a single quarter last year. Among a youth population of 3.47 million aged 10 to 35, the gap between information and action is costing lives. That contextual calibration, sustained since 2017 and across more than 50,000 individuals, is what makes this an innovation in public health delivery rather than simply a health service. The clinic could not reach these men. He could.

> "THERE WAS NEVER ANYTHING ABOUT MEN. SO THAT'S WHAT REALLY INSPIRED ME: TO SAY, OKAY, WHEN I'M STARTING PHAKAMANI EMPOWERMENT, WE'RE ADDRESSING STI MATTERS, BUT I WANT MEN INCLUDED SO THEY CAN FEEL VALUED AND IMPORTANT IN HEALTHCARE TOO."
>
> — Phakamani Ndlovu, Phakamani Empowermenterment

FROM THE TAXI RANK TO THE BOARDROOM

The organisation that exists today did not arrive fully formed. After the McCord ambassador contract ended in 2013 and the hospital eventually closed in 2018, Phakamani was left with the work but no platform. He went to the taxi rank. He went to truck stops. He talked to drivers about the same things he had been saying at the hospital, without the hospital's backing, without pay, on his own time. In 2017 he tried to formalise the work by recruiting a founding team. They arrived expecting funding to follow within months. When it did not, they left. However, Phakamani did not. He registered Phakamani Empowerment as a private company in 2019, and began the slower, more painstaking process of building the compliance infrastructure that serious funders and institutions require: the registered company, the annual returns, the professional email address, the website, the branded presentation.

"When you send an email with a Gmail address," he says, "people don't really pay much attention because it's like you're not serious about your business." The shift from Gmail to a company address, he noticed, changed the response rate.

The compliance work opened funding doors. NYDA provided R50,000, which paid for the laptop he still uses. SEDFA funded marketing materials, branded gazebos, and the clinical equipment now used by Dr Sanelisiwe Shabalala at wellness events. A further SEDFA grant of approximately R135,000 supported the purchase of medical equipment for a planned private medical practice that Phakamani and Dr Sanelisiwe Shabalala are currently seeking premises for in Durban. All of this happened after the formalisation of the business. None of it was available before.

Then, in 2025, the US government cancelled funding for HIV and AIDS programmes in South Africa. Five contracts that Phakamani's organisation held simultaneously, covering circumcision recruitment, nurse training on mental health, training on recording and reporting, mobiliser training, and the broader TB and HIV work, were cancelled in a single moment. Staff who had been on those contracts, including his wife, a professional nurse who had been working for Right to Care, were left without income. The team is now operating on a casual basis: Dr Sanelisiwe Shabalala, two former interns who return when needed, and his wife when her clinical skills are required.

THE MAN WHO CONVINCED AN ELDER

The story Phakamani tells about impact is not about numbers. Instead, it is about a former primary school principal who heard him on an uKhozi FM radio slot during STI Awareness Week and called him afterwards. The man was unwell. He had cancelled his medical aid. He was old enough that the stigma around men visiting healthcare facilities had calcified into something he could not easily move past. He was not going to show his private parts to young female nurses. He was not going to go.

Phakamani spent time with him. Eventually the man agreed to go to King Edward Hospital for screening. Unfortunately, prostate cancer was diagnosed. Treatment began. He is still attending his sessions. "I bump into his wife when we're doing activations at Watercrest Mall," Phakamani says. "She came and said, you know, what you did for my husband, we know in our culture how elders are. It's really amazing. He has changed. He's now willing to go to healthcare facilities. I wonder what you said to him."

There is also the photographer he has been mentoring, a young man who now has a branded car, a professional portfolio, and enough discipline with his social media presence to understand that the business brand and the personal brand are the same thing.

"He called me and said, I'm going to this client, this is the issue. Those are the successes I will share and be proud of." Phakamani does not distinguish between the health work and the mentorship work. Both are about convincing people that they are worth taking care of.

WHAT HE HAS BUILT

The numbers from Phakamani Empowerment's operational track record tell the story of what consistent community-level health work produces over time. Since February 2017, the organisation has delivered 69 health and wellness events across 23 client organisations, ranging from Superspar KwaMashu and Emeris College to the University of KwaZulu-Natal across all campuses, eThekwini Municipality, and KwaDukuza Municipality.

The organisation has engaged more than 80,000 youth through SBCC campaigns, supported more than 90,500 circumcisions through clinical partners, trained more than 50,300 students across various health and life skills fields since 2019, and reached more than 99,999 individuals in total. "We build strong people to build strong communities" is the value proposition on Phakamani's pitch deck. The numbers are what that looks like in practice.

The organisation's growth plan calls for four additional hires: two clinicians, one psychologist, and one Skills Development Facilitator. The private medical practice that Phakamani and Dr Sanelisiwe Shabalala are seeking premises for in Durban represents the next revenue channel, one that does not depend on government contracts.

WHAT HE NEEDS AND WHAT HE IS BUILDING

Phakamani is direct about what he wants from Innovate Durban and from the institutions that recognise his work: not money, but visibility. When DUT featured Phakamani Empowerment in its annual report, the bookings increased. When NYDA named him Trailblazer, the social media following grew. When credible institutions publicly acknowledge the work, other institutions decide to trust it. “If Innovate Durban put me out there,” he says, “people will see me. They will say this company is being profiled, meaning they are doing something positive. And then people start to book us.”

Within the next twelve months, the most significant planned development is a mobile app for STI screening and booking, a questionnaire-based tool that allows users to assess their risk and make appointments with Phakamani Empowerment before arriving at a facility. It is a logical extension of the SBCC model, reaching the people who will not walk into a clinic or respond to a cold call but will tap through a questionnaire on their phone at midnight, alone, without having to explain themselves to anyone.

His advice to other innovators is the same thing he told himself in 2011 when his friends laughed at him for standing in public and talking about foreskin: “Don’t copy other people. There’s something unique about you that you need to discover. Be authentic. That’s where your win will come from.” The same people who laughed are now calling him to say they couldn’t look at you back then. He has a car now. He has this. He continues.

The most useful piece of professional feedback he has received came from his wife, a professional nurse who has worked alongside him and watched him present hundreds of times. Her advice was simple: “Not everyone thinks like you, so when you engage people, take that into account.” It changed how he communicates. He now reads the room, simplifies where necessary, presents ideas through practical examples and storytelling rather than assuming his audience arrives at the same conclusions he does. He makes space for questions rather than pushing a single way of thinking. The goal, as he puts it, is not just to be understood. It is to make sure others feel understood too.

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Facebook: https://www.facebook.com/share/16U6oxJCRQ/
Instagram: https://www.instagram.com/phakamaniempowerment?utm_source=qr&igsh=dGtvY3liMTI4cmdk
X: https://x.com/PhakamaniEmpow1?t=oVMBDRMQI4jZ9qmay7G6tw&s=09

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THE ROAD AHEAD

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SECTOR	FOUNDED	WELLNESS EVENTS	CIRCUMCISIONS SUPPORTED	NEXT FRONTIER
Sexual Health / Social Innovation	2019 (active from 2017)	69 events across 23 client organisations	90,500+	STI screening mobile app

THE HACKATHON ANCESTOR

JADEAN WRIGHT AND ARCANATECH

THE HACKATHON ANCESTOR

The people who know Jadean Wright well call her the hackathon ancestor. She has won enough of them, and performed well enough in many others, that she has built what she describes as a portfolio of influence in that space. Tata Consultancy Services published an article describing her as an IoT extraordinaire. She is, at the time of this publication, a young woman in Durban building her first real company, registered in 2025 after three years of turning a camp idea into a working system architecture.

That idea began at a 4IR boot camp in 2022. The brief was open. Jadean looked at what disaster-prone communities in South Africa were actually missing and landed on two things that were usually treated as separate problems: internet access and early-warning infrastructure. She started with a connectivity tower. Then she added sensors. Then she built the logic that connects them. By 2025 the architecture was complete, ArcanaTech was registered, and physical prototyping had begun. Three years from an idea at a camp to a company with a prototype in development. That is the pace she works at.

WHAT THE TOWER DOES

The Nexus Tower is a solar-powered community infrastructure device that does several things at once. It provides affordable internet access to nearby households. It connects low-power LoRaWAN sensors, a communications protocol designed for long-range, low-energy IoT devices, to monitor fire, flood, and natural disaster conditions. When a threshold is crossed, alerts go directly to residents' phones. The system is designed to keep running precisely when conventional infrastructure fails. That is the specific point at which it becomes useful rather than redundant.

Each component already exists somewhere in the world. Solar internet towers are deployed across the continent. IoT disaster sensors are used in urban emergency management. Youth employment in telecoms maintenance is not new. What ArcanaTech is building is the integration: a single deployable unit that combines all three for communities that currently have none of them. In a suburb with reliable emergency services, a connected tower is a convenience. In a community where floods arrive faster than the municipality can respond, where there is no reliable way to call for help, and where internet access determines whether a household knows a fire is coming, the same technology becomes critical infrastructure. The innovation is knowing where existing technology has not yet been taken, and building specifically for that gap.

The current prototype is a 3D-printed tower roughly an arm's length tall, with the sensors connected separately. It looks like a standard telecoms tower in miniature. The architecture is complete; the next phase integrates the sensors into the housing. The employment model is built into the deployment plan from the start. Each tower supports three trained community members who maintain and monitor the network. The vision is 20 to 25 towers across disaster-prone communities, which would mean between 60 and 75 young people directly employed.

> “THERE’S A GREAT NEED FOR THIS WITHIN COMMUNITIES THAT ARE DISASTER-PRONE, AS WELL AS THE YOUTH THAT NEED ACCESS TO INTERNET. I PUT THAT AS MY GOAL AND KEPT ON PUSHING TOWARDS THAT.”
>
> **— Jadean Wright, ArcanaTech**

THE PERSON BEHIND IT

Jadean is the sole founder and director of ArcanaTech, supported by six chief of staff. Two partners have been instrumental in the technical development: Algoatwork, a robotics academy, and KZN Tech Mbokodo, a women's empowerment organisation in the tech space. Her mentor Zama Khumalo, whom she met through a hackathon, has been central to her growth. She helped with pushing the burning issue of why the human-centred approach is needed. A second mentor, Francis Djuimo, came through Algoatwork and assisted from the technical point of view, building and selecting correct sensors and equipment.

She is candid about what starting a company actually involves. "There would be so much work, more than you think," she says. "The overwhelmingness that comes with it, the admin that comes with it, the experiences that come with it. You don't necessarily think of going in depth to that aspect. So you overlook it, but then when you get into it, it just hits you full on." That honesty is more useful than advice about passion or persistence, because it names the specific thing most people do not warn you about. The administration does not let up. The paperwork arrives whether or not the prototype is working. Knowing that in advance does not make it easier, but it changes how you meet it.

There were moments during prototype development when she considered stopping. She did not. "I put the need of the whole system before how I felt about it," she says. "There is a great need for it within communities that are disaster-prone, as well as the youth that need access to internet. I used that as my goalpost." She is also co-founder of a social index project that runs alongside her work at ArcanaTech. The Durban Chamber of Commerce and Industry has recognised the innovation with its Innovative Business Award.

WHAT NEEDS TO HAPPEN NEXT

The development has been entirely self-funded. A pending partnership with a prominent network provider, covering the internet and IoT components, has been confirmed in principle but activates only once the physical prototype is complete. The network provider's condition is proof of hardware first. It is a sensible sequencing: a major telecoms operator co-investing in infrastructure for communities that are not currently commercially attractive to serve represents a significant step, and it requires something real to co-invest in.

The critical remaining bottleneck is land. Installing a tower requires a site. Jadean is pursuing this through the Department of EDTEA and the Department of Disaster Management. The regulatory and logistical path from prototype to deployment has not yet been fully mapped, and she is honest about that. Her advice to other innovators is shaped by the path she has followed herself: "Start small. Don't make it too complex. Start with something small and then work towards it and then add on. You can always improve. Don't let it stop you from starting." The Nexus Tower began as a connectivity idea and became a disaster preparedness system through exactly that process. The next version will be better than the current one. That is the plan.

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SECTOR	LOCATION	FOUNDED	PARTNERSHIP	AWARD
IoT / Disaster Management	Durban	2025	Network Partnership in progress — confirmed in principle	Durban Chamber of Commerce Innovative Business Award

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