## PIONEERS

### IN THE CAPE TECH INDUSTRY

A CITY LEADING THE WAY

Cape Town and the Western Cape is the tech hub of Africa

Insights by Paul Lewis & Jacopo Dettoni

Al & airborne tech

**Fully electric vehicles** 

Intuitive chatbots

Cape Town's own stock exchange

Township techpreneurs

Games changing the world

GROUNDBREAKING TECH COMPANIES

> + Much more

**EDITION 4** 

### **Preface**

In this edition of *Pioneers* we celebrate the tech ecosystem in Cape Town and the Western Cape, from the inspiring, groundbreaking companies operating in the province to the greater industry that supports them. We profile 15 companies that have shifted the needle on tech development. From click-and-collect delivery services and fully electric delivery vehicles to world-class intelligence tradecraft and innovative fintech, they are all fantastic examples of those driving the innovation and growth of the local tech space.

In this issue, we also shine the spotlight on the growing number of co-working spaces throughout the province, the incubators and accelerators providing support to early-stage start-ups, the rise of grassroots technology, as well as the work being done by local government to support local innovators and the greater tech industry.

With the COVID-19 pandemic, the world has seen a seismic shift in the acceleration to the digital model, including the more positive attitude towards remote working and the pivot to online business systems. The tech industry in Cape Town and the Western Cape has been a driving force in this ability to adapt and thrive during uncertain times.

The rise of the "digital nomad" has also been accelerated by the changing world, and Wesgro, the official tourism, trade and investment promotion agency for Cape Town and the Western Cape, is focused on ensuring the province is well positioned in this space. The agency continues to drive the messaging that the province is well set up to welcome this new breed of worker with the launch of their Remote Work Portal (www.wesgro.co.za/long-stay/home), which showcases the incredible network that supports the ability to work remotely anywhere in the province.

As the tech hub of Africa, Cape Town has long been considered an attractive option for digital nomads, which was recently affirmed by the Nomad List: The city is among the 50 best cities for remote working in 2021, with affordability and a large expat community two big factors, while the Mother City's picturesque beauty is also a heady lure.

But it's not all about aesthetics. The city has one of the largest open-fibre networks on the continent, a well-developed network of local and international entrepreneurs, and more than 450 tech firms, employing more than 40 000 people. The Western Cape also boasts great connectivity, is one of the most energy-secure provinces in the country, and is home to internationally renowned tertiary institutions, developing world-class professionals, some of whom are profiled in this magazine.

As an investment destination, the region has attracted and supported local and international technology businesses in their growth and expansion. This saw the likes of Construct and Amazon establish a presence locally.

With these successes, Cape Town and the Western Cape is fully servicing the entire tech ecosystem, enabling an environment for early- to late-stage technology businesses to succeed and call Cape Town their home. This has been affirmed by fDi Intelligence recently ranking Cape Town second as a tech ecosystem, and first by the World Bank on the ease of doing business.

These are just some of the reasons why Cape Town and the Western Cape is leading the way in the tech space. This edition brings our successes to light by showcasing not only the talent that drives this dynamic sector, but the network that supports them as well.



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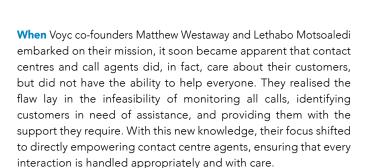
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# Voyc: A new level of contact centre quality

The fair treatment of customers was the inspiration for the founding of Voyc. What started as two complaining students became the development of cutting-edge technology that improves B2C communication.

By Raphaella Joannou



"Contact centres were only able to check 1% or 2% of the calls, so what we do is, we help them go through 100% of the calls so that they can focus on the ones that have issues," says Matthew of the Voyc solution.

When a contact centre call is made, the caller is usually notified that the call is being recorded. Of all these calls, an average of six recordings per agent are randomly selected and listened to to assess agent performance. Statistically speaking, this implies that only about 2% of calls are checked, suggesting that red flags are easily missed through untouched recordings, leaving a potentially frustrated clientele.

Voyc monitors all contact centre interactions and pinpoints the calls that have problems, focusing on the agents and situations that need attention. As a result, Voyc significantly decreases the risk of letting red flags slip by. One of their noteworthy clients saw a 22% decrease in regulatory complaints since adopting Voyc's technology.

"Our USP, the one that our customers love, is the ability to fit into the existing QA framework," Matthew explains.

Voyc has also ensured a user-friendly integration process. Most quality assurance (QA) assessors grade the calls using programmes like Excel, but they are given analytics and insights from external AI and machine learning. This requires an additional party to interpret and implement changes.

## One of their noteworthy clients saw a 22% decrease in regulatory complaints since adopting Voyc's technology.

Voyc, however, has taken it a step further, ensuring that the analytics and insights are brought into the existing quality assurance workflow. This means that if there is an issue with a call, it gets passed on to someone who can act on it, conveniently incorporating Voyc's technology.

"In terms of machine learning and AI, the work we do is cutting-edge," says Matthew.

Voyc prides themselves on being able to monitor the scripts read by agents, as well as how the dialogue deviates down a different route. This means that the technology can find out "which way" the call went. Matthew expresses immense pride in this technological feat and credits its success to "South Africans in South Africa".

Although the co-founders are currently based in Amsterdam, with the intention to expand into other markets, most of the developers are still in the country. And despite having relocated, Voyc has prioritised the employment of South Africans – not just out of national pride, but also due to the expertise of South African engineers.

#### **Expanding into new markets**

The demand for higher-end technology spilled over as Voyc was noticed by Dutch companies. This meant that the speech-to-text technology used in Voyc's solution had to be localised to translate Dutch calls, furthering the product's development. Ultimately, there is capacity and capability for Voyc to further expand its technology across borders.

Additional audio development includes the technology being able to pick up certain sounds and volumes. For instance, when there is dead silence, like when the phone has been placed on hold, or if the agent has left the caller on the line, Voyc's technology will pick it up and flag the call. This kind of audio development can be furthered to understand inflections and associated emotions of the speakers, too, showing immense potential.

Voyc also plans to launch a self-learning portal that will allow agents to develop their skills online while their performance and progress are monitored. They have a plethora of visions and plans for their product, including levels of cybersecurity, positive affirmation and encouragement of call agents, and automated systems to designate calls. That being said, their product road map prioritises the development of text-based communication monitoring, like emails and social media conversations.

While the future of Voyc looks promising, their achievements and successes to date have been noteworthy, to say the least. Their technology has, on average, monitored 50 000 calls per month – cumulating in over one million monitored calls since Voyc secured its first enterprise client in January 2020. This is an incredible milestone for a local business. Additionally, Accenture in the Netherlands awarded Voyc the Blue Tulip Award in the Finance & Prosperity category – an Oscars equivalent in the start-up world.

With a track record as strong as that, there is no doubt that Voyc will become an incredible asset to the digital ecosystem.



# Finvex.tech: Financial independence for SMEs

Finvex.tech creates fintech solutions to support and improve the efficiency and management of payable and receivable accounts.

By Raphaella Joannou



**Finvex.tech** was founded as an international collaboration between two South Africans and two Brazilians. Although co-founder Rezaan Daniels is from Cape Town, he worked in Brazil, which gave him the opportunity to see the similarities between these two markets first-hand. The market dynamics that are faced in South Africa are very similar to those in Brazil.

A major finding in both markets was that access to working capital finance is extremely hard for small businesses. In South Africa, less than 13% of SMEs have access to formal financing, causing a funding gap of a reported R346 billion per year.

When looking for the pain point, it became apparent that all businesses, big and small, listed or privately owned, faced the struggle of working capital management, and they all had the desire to get paid as early as possible. However, the cash cycle has a large bias, where corporates or larger retailers can manage their working capital by placing terms in suppliers' payments, meaning they are only remitted after 60, 90 or 120 days after the job has been completed.

"How can we unlock working capital in the cycle between when the work is done and when the supplier gets paid?" was the question Rezaan asked.

Although the solution is practised in large corporate investment banks, Finvex.tech was born with the purpose to filter the model down to SMEs and midrange corporates. By understanding corporates and their payment terms, Finvex.tech was able to automate and enable technology, making it five to 10 times cheaper than what SMEs could get financed.

#### **Instant payment**

"In this brave new world, where business isn't just demand and supply, we have three key parties on the platform: the large corporate buyers, their SME suppliers, and third-party funders," Rezaan explains.

Finvex.tech manages the full payment life cycle for the funders. They have the option to make a one-time investment, but are also able to come onto the platform and view all the invoices. This transparency is further evidenced by the invoicing system being automated, ensuring that information isn't tampered with.

"We have over R10,3 billion's worth of invoices on our platform already. Since launching in 2020, we've given early-pay financing to over 4 000 SMEs, to the value of about R414 million," says Rezaan.

Finvex.tech processes around 40 000 invoices a day. "The technology is scalable and easy to use on the back end: Finvex.tech will hard-code the discount – that the SME is willing to accept – for early payment onto our platform. Now, instead of having to seek bank assistance with audited financials to show cash flow – which most SMEs don't have – and most likely getting rejected, SMEs can have instant payment on the Finvex.tech platform," Rezaan explains.

Simply put: It can put money in hands earlier and more easily. The SME has to decide whether the 60- to 120-day wait for the full amount is more valuable than the ability to buy stock or supplies with discounted cash in hand. The platform is user-friendly and helpful in showing the possible outcomes for SMEs, and Finvex.tech only takes a 0,5% transaction fee on accepted invoices.

"I don't think we should discount how smart SMEs already are in understanding their businesses and making those good financial decisions," Rezaan adds.

#### A positive-sum game

When it comes to onboarding the suppliers, education and awareness are critical. Through leveraging the digital ecosystem, Finvex.tech interacts with potential SMEs through WhatsApp messages, allowing them to receive a list of invoices and amounts that they could get paid early. Once the SME realises they can achieve financial independence, that they can get cash, it creates a connection. In fact, there are plans to further develop Al to help SMEs understand when the optimal time is to take the discount, instead of basing the transition on a need for capital. Integrating machine learning can therefore empower the SME further.

#### "SMEs get the biggest benefit: early access to finance."

"We're not against payment terms – we've tried to find a solution where everybody wins. So the corporates keep their payment terms, funders get to finance SMEs, and SMEs get the biggest benefit: early access to this finance," says Rezaan.

Finvex.tech's finance product is distinguishable from its competitors' due to the impact of the model: how the better financing of SMEs stimulates business growth, employment and sustainability.

Being a UCT GSB MBA graduate, Rezaan emphasises the importance of social innovation and the localisation of supply chains, especially in these times. These ethical motivations have gained strong support from consumers too, as they value socially responsible businesses.

"One of our strongest test cases and industries is agribusiness. We really see it as a strong sector to focus on, especially in the Western Cape."

Looking ahead, Finvex.tech aims to integrate local markets further in the agribusiness industry and their typically large chains of supply that extend beyond the farmer. Ultimately, the platform could help increase investment in the sector, and in the Western Cape especially.



## **Enlabeler: Data, sorted**

Enlabeler turns raw, unlabelled data into high-quality annotated data, and grows Africa's digital talent ecosystem in the process.

By Nokubongwa KaMajiya

Oftentimes, data scientists or engineers do not have the time or capacity to spend hours and hours creating, cleaning and labelling data sets for their machine-learning models. This is where Enlabeler comes in. Established in 2019, this company is a data-labelling service provider that offers end-to-end solutions for the classification, cleaning up and labelling of data sets.

Enlabeler's services include image and video annotation for computer vision models, the transcription of audio files into text, the translation of video and audio content into another local language, and text classification to train models in sentiment analysis or entity recognition.

The aim of the business is to merge the need for accurate data set labelling with the urgent need for job creation. Since launching, their live image annotation, audio transcription and local language services have attracted a number of local and international clients.

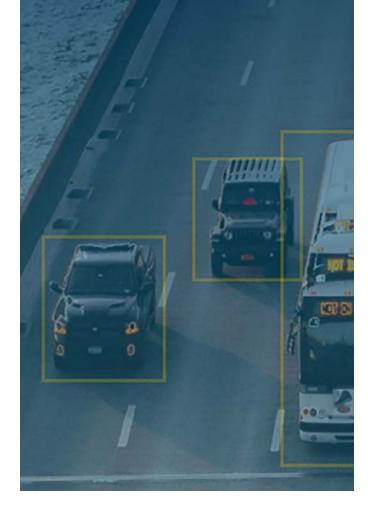
Their current client mix is approximately 40% South African and 60% international, while their current client portfolio consists of AI and machine-learning companies, but also big-infrastructure players based in the Netherlands, the US and Canada. The team is actively working on onboarding new clients from mainland Europe and other regions.

Enlabeler's ethos centres around creating a tech-driven environment for highly motivated young people to gain work experience, earn a salary, learn a new area of work, and ultimately grow into the South African data science and tech spaces.

#### A global reach

The year 2020 was one of uncertainty as the entire world was hit by the coronavirus pandemic. However, unlike many other start-ups, Enlabeler was not affected by COVID-19 and the lockdowns as it has always been operating 100% remotely. Interestingly, the business managed to create over 200 paid labelling jobs, excluding the employment opportunities created within the core Enlabeler team.

"As Enlabeler offers a fully integrated and secure data pipeline with the main cloud providers, such as Microsoft Azure and Amazon Web Services, clients from anywhere in the world can be serviced by our team," says Esther Hoogstad, CEO and founder of the business.



The company has a strong and diverse leadership team, and over 650 data labellers, annotators and language specialists, many of whom come from marginalised communities. Their team of domain experts work with different data types for a diverse range of industries, creating flexible tech jobs, and thereby fighting unemployment.

"We combine the latest in innovation and technology with the ability to scale globally, while empowering ordinary South Africans," says Hoogstad.

Enlabeler's main competitors in the global data-labelling and annotation space are Sama, Labelbox, LabelFuse and Scale AI, but none of these share the goal to create and build data sets in Africa for domestic and international clients.

The aim of the business is to merge the need for accurate data set labelling with the urgent need for job creation.

The business is empowering a whole new generation of professionals in the data industry, who will gain experience in the growing Al and machine-learning space. Because of their price point, customised service offering and quick turnaround time, Enlabeler is able to compete with more automated, large players based elsewhere.

Looking to the future, this innovative data-labelling service provider is focused on growing its international footprint and is currently in talks with several large-scale partners that will help it grow.



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## CompariSure: The bot next door

Fintech company CompariSure is a marketplace that connects insurers with consumers through their social media-integrated friendly chatbot.

By Raphaella Joannou





**Ten** to 15 years ago, insurers would create websites in an effort to sell their products and policies online. But in South Africa, where a large part of the market lacks access to computers, or has not purchased a product online, the corporates' connection is ineffective or lost. This is where Jonathan Elcock and Matt Kloos found a gap in the digital ecosystem, which inspired the development of CompariSure.

"In South Africa, there are great insurers, but they often struggle to reach people in this new-tech era. Ninety-nine percent of people we speak to are on mobile phones. They don't have computers and are not used to browsing websites. So we've built this conversational technology that enables people to access these great products. We are a distributor, selling products, using tech," Matt explains.

Through a CompariSure Facebook ad, consumers can initiate a Facebook Messenger or WhatsApp conversation in which a chatbot takes them through the whole process of finding and securing a good deal, or better-suited product. "We pride ourselves on trying to find the best deals. We offer users the choice and give the consumer the power," says Matt.

Usually, insurance ads call on users to share their cell number and create a string of ineffective phone calls and spam. CompariSure's chatbot technology, on the other hand, can take a product and turn it into a conversation that consumers engage in. It is simple, user-friendly, and intuitive.

CompariSure's greatest breakthrough has been with funeral cover. A consumer can share their details and add the people they would like covered, head to a check-out screen and get a policy document immediately. Most of the time, an email address is not even required. This was a conscious choice by CompariSure, as it is seen as an "archaic means of communicating" by younger generations.

## The chatbot can handle complex conversations, but in a simple and understandable way.

They have also coded empathy into their AI to make the conversation warm and friendly. Their chatbot can comment on a user's responses in an intuitive way, like expressing support and respect. "Chatbots are powerful. They are a brilliant way to share content with people and educate customers and gather their feedback," Matt remarks.

Ultimately, this is CompariSure's differentiator: The chatbot can handle complex conversations related to financial products and insurance, but in a simple and understandable way.

#### **Best of both worlds**

The chatbot is also widely and easily accessible. A user can get information 24/7 and is not affected by power outages.

And if a user gets stuck or requires further guidance, a team of agents, who are monitoring the bot, can step in and assist, offering the user the best of both worlds.

From the agents' perspective, work no longer entails repetitive administrative work, or collecting basic details; they are now specialised in human interaction and problem-solving skills. This deep end-to-end ability, with the human touch, if needed, is what sets CampariSure apart.

A major point of pride is CompariSure's distribution ability. Since they are not limited to selling only one brand, they are able to find the best deal from a select group of brands and give the consumer the knowledge to make a choice. They have essentially democratised insurance, giving the user power and incorporating ethics into corporate.

Ultimately, this is what inspired the co-founders to start CompariSure. Jonathan worked in insurance and felt limited by the product offering and inability to maximise benefit for the consumer. Matt, who was working at an investment bank in London, quit his job and moved back to partner with Jonathan.

#### Changing people's lives

Regarding the future, the opportunities are endless. CompariSure trialled a Zulu chatbot and were able to share content with customers they were otherwise, linguistically, blocked from. This flexibility of language is the tip of the iceberg in conversational commerce when it comes to expansion possibilities.

The fact that the tool is integrated into social media platforms also allows for a global reach. When the pandemic first started, the chatbot was able to check in with users, ask about their knowledge of the virus, and offer advice on how to best manage it. The technology became a data-collection tool with an educational purpose.

To date, CompariSure's biggest success has been their reach into new markets. By interacting with 1,5 million South African users, and covering 100 000 lives (policies sold), they have helped people who are used to a brick-and-mortar, cash-based society buy products online.

What motivates Jonathan and Matt to be a part of the digital network is the ability to change people's lives; knowing that, in the long run, the technology they've developed improves lives at the grassroots level. The user feedback echoes the founders' motivation, consistently expressing gratitude for finding a great deal through a slick experience.

There is no doubt that this local tech business is at the start of a socially beneficial trajectory.

## FinChatBot: Al enhancing the world of finance

Local fintech company FinChatBot develops conversational AI solutions that help financial service providers acquire and retain customers by optimising customers' experience.

By Nokubongwa KaMajiya

**Research** indicates that call centres are increasingly inefficient, saturated and expensive, often not delivering the intended results in terms of sales conversion and customer satisfaction. This is why FinChatBot has been on a mission to develop solutions for the financial services industry and address the inefficiencies of call centres.

Founded in Cape Town in 2016 by French entrepreneurs Antoine Paillusseau and Romain Diaz, FinChatBot kicked off its journey in the insurance sector by assisting clients with sales, customer retention, customer care and other core insurance functions. However, the more closely they worked with their clients, the more they realised that insurance companies require greater levels of support and advice. This support included setting up the proper Al conversational flows for their clients. Today, the company develops bespoke conversational Al solutions while reducing operating costs.

"Our goal with FinChatBot was to bring people closer to financial services with an interactive and fun experience, while enabling financial service providers to enhance customer experience and maximise business performance by saving time and money," Antoine explains.

FinChatBot's business model is based on both SAAS and a performance fee, and that is what sets them apart. They are not just a software provider to their clients, but an integrated partner that fully manages the solution and works closely with them to optimise performance over the long term.

"Our goal with FinChatBot was to bring people closer to financial services with an interactive and fun experience."

The company's platform brings people closer to financial services through an intelligent and human-like conversation, and offers a more intuitive and efficient customer journey, enabling clients to interact with dozens of potential and existing customers. Currently, their chatbots are facilitating an increase of up to 40% in converting quotes to insurance cover.

#### Transforming people's lives

"We believe in positively transforming people's lives through performance-driven digital solutions. We aim to become the best at selling financial service products via Al-powered conversational solutions," says Antoine. Some of the business's key highlights include partnering with MTN to create a conversational AI solution for their MoMo customer acquisition, which enables customers to sign up for a MoMo account on their mobile phone in just a few minutes.

The business went on to create a persona for the registration solution called Siza. Siza adds something special to the experience in terms of memorability, and an overall more enjoyable experience for customers.

FinChatBot also teamed up with the Nashua Children's Charity Foundation (NCCF) and Ozow to develop a first-of-its-kind, end-to-end conversational AI donation solution that enables benefactors to donate to the Foundation from their desktop or on their mobile phone in just a few seconds.

This conversational solution, known as NASH, is an Al-driven platform that allows donors to choose whether they would like to donate money, goods, or their time by engaging with NASH and completing a few simple, user-friendly steps.

With such a successful foray into the insurance sector, FinChatBot is looking to expand into Portugal, France and the UK, as well as West Africa.



# DigsConnect: The perfect solution to student accommodation

DigsConnect.com has become the Airbnb of student accommodation, matching students all over the country with landlords who offer exactly what they are looking for.

By Nokubongwa KaMajiya

**Alexandria** Procter, founder of DigsConnect, South Africa's largest student accommodation marketplace, has turned an everyday struggle for students into a profitable business.

After having battled to find accommodation during her first year at the University of Cape Town, and learning that many other students were in the same boat year after year, all while having a number of landlords calling to say that they had vacancies, Alexandria decided that this was a sign to try and match students and landlords. And DigsConnect was born.

Before becoming South Africa's first and most successful digital solution to student accommodation, Alexandria did this matching manually. Then, over a weekend during her honours year in Biology, she built a basic website where one could add a digs, and find a digs, and it worked like magic.

Students at UCT were flocking to it, then students from Stellenbosch University, and then students from Johannesburg and Grahamstown. The website took on a life of its own. Alexandra ended up having to drop out of university in order to fully focus on the business, which aims to connect South African students with property owners looking to rent out beds, rooms or entire properties. Today, the platform lists over 70 000 beds in around 15 locations across South Africa.

"If users keep coming back to your site, chances are you're onto something that's adding value to people's lives. And that's what continues to drive us in the challenging start-up environment," says Alexandria.

Landlords list their properties on DigsConnect.com, where registered students can find places to stay close to their universities or colleges, and find roommates. The business is expanding rapidly, and will eventually have a presence wherever there is an institution of higher education.



Some of DigsConnect's biggest achievements so far are raising R12 000 000 in a seed round (one of the largest in South Africa to date), partnering with some incredible universities and schools, and launching in new locations.

"Entrepreneurship is people stepping up to the plate and realising that they are in control of the future of humanity."

#### The future of entrepreneurship

According to Alexandria, entrepreneurship is people stepping up to the plate and realising that they are in control of the future of humanity; that if one doesn't like something, one doesn't need to wait for someone else to fix it, or someone else to give you approval. It's everyone helping everyone around them to succeed, and everyone celebrating the success of hard work and determination.

She adds: "One of the best sayings about leadership I've ever heard is that leaders make other leaders, so I'd like to see entrepreneurs inspiring other young South Africans to step up, take the reins in their society, and change the world for the better by providing products and services that improve the way we live."

Over the next five years, DigsConnect plans to focus on reaching a conversion rate of as close to 100% as possible. And until the business gets there, until they have created the best experience one can have while looking for student accommodation, it won't allow itself the luxury of thinking about anything else.



### Mellow Vans: The future is electric

Stellenbosch-based start-up MellowVans is replacing both traditional motorcycles and light vans used for deliveries with their low-cost, emission-free, fully electric vehicles.

By Rob Peters

With each of their electric vehicles running at a mere 12 to 15 cents per kilometre in terms of operational costs, providing over 100 km of range, and featuring 2,4 cubic metres of space, MellowVans is revolutionising the delivery space locally, with an eye on moving abroad soon.

Initially launched as a passenger-based vehicle, MellowCabs pivoted to a cargo-orientated machine called the MellowVan, with the first prototype launched in 2018. The van has evolved massively since then: The prototype went through six iterations over the following two years, with the vehicle going into serial production this year.

"We have been working well with all the big retailers in South Africa," says MellowVans founder, Neil du Preez. "We are currently operating all over the country, have sent vehicles to Botswana and Namibia, and are now focused on completing the tests for European vehicle requirements. We have one vehicle in the Netherlands, but once the tests are done, we will launch full-scale into Europe and the Middle East."

The uptake from local retailers has been impressive, with the "big four" in South Africa already on board. Checkers is leading the way with their Sixty60 home delivery option, the Spar and Pick n Pay vehicles were launched in June 2021, and Woolworths is working with MellowVans on an upcoming project.

Meanwhile, courier company DHL Africa and e-commerce giant Takealot have both been with the company since its inception.



#### **Environmental impact a driving force**

Neil believes there are a number of things driving the positive reception, but none more so than the environmental considerations. Given that the average delivery vehicle does about 80 km per day, 240 days per year, a single MellowVan, which has zero direct tailpipe emissions, can save 20 kg of carbon emissions per day, or 4,9 tons per year.

"There are quite a few factors driving the conversion to electric delivery vehicles," Neil explains. "South Africa is becoming more environmentally aware, and cost is also a big driver in the country."

"I think the next leap forward for delivery technology will definitely be autonomous vehicles."

#### **Keeping it local**

While the rapid conversion to MellowVans is obviously an achievement in itself, Neil says that success is measured by more than the company's financial gains, because it's not all about the bottom line.

"One of the things I am most proud of is that we have built a business in Stellenbosch that employs local engineers, technicians and accountants, and we plow back into skills development on all levels. If you want to have an impact in South Africa, you need to create jobs.

"Our local content in the vehicle is another success: We're close to 70% local, which I am really proud of because you don't see a lot of hardware products made in SA anymore. We are pushing hard to keep it local, and I believe we are well positioned to supply markets like Europe and the Middle East.

"There are obviously challenges, but we are focused on building this vehicle and getting it into other markets. If a vehicle works in the South African delivery space, it is definitely going to work globally."

The local production of the vehicle is giving the economy a welcome boost. "Assembly happens in Stellenbosch, while the manufacturing of subsystems happens at various other Western Cape companies. The chassis will be outsourced to a Wellington business, and for the shell and the body, we have a JV with a company based in Strand. Only the windshield has been outsourced to the Eastern Cape."

All this is testament to the expertise available in the Western Cape, with its world-class tertiary institutions providing companies like MellowVans with a highly skilled pool of talent.

"We tap into Stellenbosch University, CPUT and UCT, so already there are good engineers and good technicians. It's also not hard to entice highly skilled engineers from other

provinces to the Western Cape, with the lifestyle and weather obviously huge drawcards as well."

#### **Driving into the future**

"I think the next leap forward for delivery technology will definitely be autonomous vehicles, so we're trying to align ourselves with autonomous technologies and service providers. Unfortunately, that is predominantly Europe- and US-based as it's too expensive to develop ourselves right now. Autonomous is also well suited to vehicles likes ours. It's already electric, so you can manipulate the entire vehicle with the software."

With the delivery of medicine even more necessary in the current climate, Neil is also looking at new sectors such as pharmaceuticals. He believes it's only a matter of time before major pharmacies move towards home deliveries to clients unable or unwilling to collect in person.

"As the COVID-19 pandemic increasingly affects countries with under-resourced health infrastructure and services, it is an ethical imperative to ensure that all people in all the countries of the world are able to access essential medicines. This includes those medicines that are under international control.

"COVID-19 will forever change retail, and its initial impact on e-commerce is creating challenges to online selling and services that no one could have imagined. The pandemic is accelerating consumer interest in both the purchase of goods online and the benefit of home deliveries."





# VoxCroft: Nothing but the truth

In a quest to become a global leader in risk analytics, Cape Town start-up VoxCroft has pioneered a new form of intelligence tradecraft that synthesises machine learning, data science and human wisdom into powerful software and data-driven analytics.

By Rob Peters

**Built** on the methodology of bringing together the best world-class open-source intelligence and analytics with machine learning and AI, VoxCroft has brought the work they initially did for government agencies to the private industry, specifically the NGO space. This means they can now work on projects related to global NGOs to unravel the misinformation being spread on social media about vaccinations in Africa.

VoxCroft provides in-depth on-the-ground data to their clients, advising them on all the potential risks they may run into well ahead of time.

"The kind of companies we work with in South Africa, and all over Africa, has operations in various locations, particularly in places that may have more volatile environments," says Growth Product Manager Fred Lutz.

"For example, in the case of a mining logistics company that has expensive equipment and staff that need to be moved from Point A to Point B, we help them understand potential risks on the route or at their depots. Perhaps there is a protest planned, or there's been a rise in terrorism activity. This will help them better understand the environment they are working in, or areas of concern that they should be avoiding."

VoxCroft can pull historic data on trends, and can localise it to something as granular as a specific type of crime in a particular neighbourhood. This is how they were able to advise customers operating in northern Mozambique on how the insurgency was progressing before most other risk models could.

"Providing relevant insights that are timely and accurate is something that everyone says they can do, but providing insights that are relevant in a manner that is timely and accurate is very much something that only we can do at this scale," says Fred.

"The differentiator is that we combine the best of machine learning and the best of human traits in a way that flows effectively from the one to the other, while building off the strength of both. Machine learning is great at looking very broadly and getting the information very quickly, but it is not currently at the stage where it can understand context in a nuanced way."

#### In-depth knowledge of Africa

The team's knowledge of Africa also sets them apart. They understand it to be a place with diverse regions and cultures, and this ensures their system monitors each region in isolation, not just the continent itself.

"We have the ability to provide insights in austere media environments and understand nuances in the regions and communities," says Fred. "We understand the continent very well and we'll be able to answer questions about specific regions and towns. We gather the data necessary for the customer to understand – whether it's a policymaker, CEO or logistics manager – and these are insights they would need in order to make the decisions to the best of their ability."

#### "We want to provide the best and most accurate source of truth in Africa"

Localisation is incredibly important, particularly when you consider the multitude of languages on the continent and local nuances involved. As such, VoxCroft is also moving into machine translation services, with a team of translators working across Africa, and a team of data scientists working on "low-density languages" that Google is not machine-translating at the moment, such as Oromo in Ethiopia.

#### World-class standard

The uses of this type of technology are endless, but VoxCroft is not stopping there: They want to ensure that the truth is what is circulated, not merely opinions or fake news found on social media.

"We want to provide the best and most accurate source of truth in Africa," says CEO and co-founder Barend Lutz. "Often people are very unscientific in how they approach it. They will make calls on social and political changes based on their position and opinion. We look to collect every single data point available and provide a far more comprehensive view using statistics and factual information.

"We have political science experts and risk analysts from the likes of UCT and Stellenbosch University, but also the tech team from Silicon Cape, who all operate at a global standard, meaning we can easily compete at a global level, while operating at lower costs."

As South Africans, the Lutz's want to ensure the focus falls primarily on the African continent, while they also want to maximise the output of both their automated and human components. "Slowly, but surely, we want to automate all the data collection so that our human analysts don't need to scroll through 1 000 tweets to get an answer, but can keep on doing what they do best, which is offering insights and a deeper understanding of it all. That's why we're starting to delve deeper into predictive analytics and trend analytics.

"We're also changing our focus to Africa specifically to ensure that we can provide the best source of truth and data on the continent."



## Sea Monster: Changing the world for the better, one game at a time

Cape Town-based animation, augmented-reality and gaming studio Sea Monster is built on the concept of entertaining and educating users through intrinsic motivation.

By Sarah Brownlee

**Breaking** records and creating world firsts, Sea Monster's Livin' It Up financial education mobile game walked away with the award for the best use of data and insights at the International Content Marketing Awards hosted in the United Kingdom last year.

"We use our skills in animation to extract stories that bind people together around brands, organisations, or a higher purpose. We then take these stories and reflect them to identified audiences in bite-size visuals that cut across cultures and literacy levels, in a mobile-first format," says Glenn Gillis, CEO of Sea Monster.

Drawing on what humanity has been doing for the longest time – playing games – Glenn explains how games are intrinsic to interaction: "They have rules, they provide feedback, they set goals so you can track your progress, and, most critically, they are voluntary. So if we use animation to tell the story, games to give structure to these interactions, and you put this in the context of voluntary engagement, you're starting to put the user at the centre of the process."

Underpinning their methodology is the belief that people don't change their minds because you give them more information – they change their minds because of a relationship with an archetype.

"This isn't simply a matter of moving some visuals around on a page hoping that people are going to somehow mysteriously change their behaviour. We're deeply researching all of these stories, we're understanding the characters, and we're putting those characters into an emotional narrative that drives behavioural change."

#### Changing people's relationship with money

Known for their data-driven customer-centred approach, Capitec reached out to Sea Monster three years ago to help them navigate a mobile game solution that would enable them to share knowledge and insights with their customers about how to better manage their money. Capitec also wanted to evaluate the data emerging from player habits to better understand how they could create even more value for their customers.

With over 100 000 active users, the game has an average engagement time of 17 minutes per session – a significant increase from the average 1,7 seconds of social media engagement.

"Data scientists are seeing patterns in how people play the game and how that translates into real-world financial behaviour."

"These are people who can go to the App Store and get Candy Crush, but they're choosing to get Livin' It Up, which teaches them financial skills in a very subtle and experimental way, driving better behaviour. Data scientists are seeing patterns in how people play the game and how that translates into real-world financial behaviour," says Glenn.

#### **Shaping tomorrow's entrepreneurs**

Looking at other impactful educational projects the team has embarked on, Sea Monster was approached by a major NGO in Houston, Texas, to build My Lemonade Day.

A four-module entrepreneurship programme, Lemmy, the entrepreneurial lemon, takes kids on a step-by-step journey to open their very own business – a lemonade stand. Since 2007, My Lemonade Day has been empowering the youth of today to become tomorrow's entrepreneurs, and Sea Monster is now looking to bring the concept to Africa.

With the game being downloaded predominantly by mentors and children in disadvantaged backgrounds in North America, results have shown that children are now taking their parents into a bank for the first time to open a bank account.

"It's got nothing to do with the lemons; it's got everything to do with empowerment! The amazing thing is that the barriers to entry are almost zero. Buy six lemons and some fizzy water, and you're in business," says Glenn.

#### Pioneering innovative solutions

A massive global focus for the studio at the moment is the roll-out of Lighthouse, a world-first white-label game platform for brands to use to engage with their customers.

Combining quiz mechanics, minigames, vouchers and other check-in functionality to reward and connect customers to businesses, Lighthouse is a digital engagement platform that works on mobile devices, including basic smartphones. It allows a business or brand to deliver content where customers can earn points, which can be converted into rewards and

swapped for more content (such as podcasts), or vouchers, airtime or cash – whatever rewards the brand is wanting to offer. The possibilities of this platform are endless, with huge potential for brand collaboration within the customer journey.

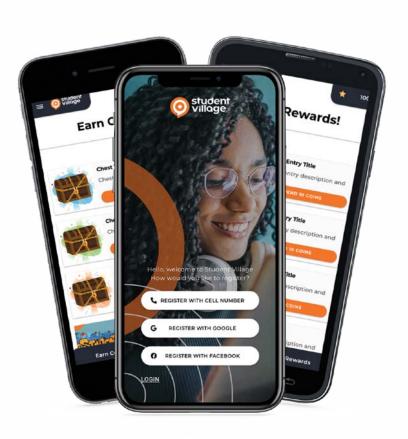
"We've taken everything we've learnt over the last ten years to create this product. Powered by super-sophisticated modern technology, we've reduced as much of the friction as possible. There is no downloadable app – the platform is accessible simply via a website," says Glenn.

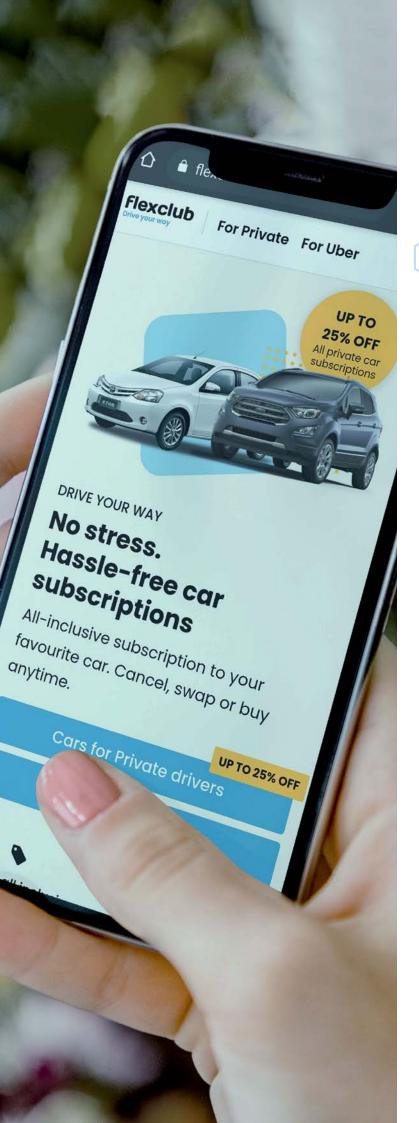
#### The secret in the sauce

Reflecting on the incredible projects and achievements of Sea Monster to date, we asked Glenn what piece of advice he has for up-and-coming techpreneurs and gaming developer enthusiasts.

"We get so caught up in 'the thing' that we somehow think a big idea is 'new', and it really isn't – everything is an evolution of something else.

"Spend 80% of your effort thinking about the demand and 20% about the supply. Get fixated on who your customer is, why they would want to engage with your creation, and how you intend to get them to pay for it. Only then think about the idea."





# FlexClub: Don't buy subscribe

Say goodbye to stressful vehicle financing and long-term contractual commitments. FlexClub is flipping the traditional way people view cars on its head with their innovative, convenient, flexible, hassle-free car subscription model.

By Sarah Brownlee

**Tapping** into the growing trend of subscription as an emerging category of how people consume goods, FlexClub's marketplace gives its members the freedom to choose the way they move.

Focusing initially on ridesharing drivers – who, prior to the FlexClub service, were accessing cars informally on Gumtree and Facebook – the marketplace has now expanded to serve regular consumers and businesses.

"Our subscriptions are really a hybrid between a short-term rental – enabled through the flexibility to swap out a vehicle should it no longer serve your lifestyle – and the pricing benefits of a long-term lease. The combination of the two allows us to deliver subscription products for personal or business use to members in South Africa and Mexico," explains Tinashe Ruzane, co-founder of FlexClub.



"Our biggest partners providing subscriptions at the moment are Avis and Europear. They are making use of their short-term rental foundation to develop their subscription products for South Africans. Leasing companies have the opportunity to do the same using the FlexClub marketplace," says Ruzane.

For their partners, which include Motus, a Europear franchisee, and Barloworld, an Avis franchisee, Ruzane says: "We are bringing the technology and the operational support to help the automotive industry craft experiences for modern consumers and become the mobility providers of the future."

As opposed to financing a car the old-school way, FlexClub is making big-ticket items accessible to a wide range of consumers who are not well served by traditional financing through the convenience of an all-inclusive flexible subscription.

"The idea is that our members are never in a position where their expenses outstrip their income. As your lifestyle changes, so can your car – without the stress of having to negotiate out of a deal with a bank for a car that no longer serves you."

With the financial impact of the pandemic altering consumer mindsets, trends show that many people are looking to avoid fixed-cost obligations, opting for flexible solutions that can be levered up or down, depending on income flows.

"Pre-COVID, the South African market was selling over 400 000 cars a year, with the vast majority of these sales done through financing. With consumers more reluctant to commit to several years of loan payments, FlexClub's business has quadrupled in the last six months, showing the readiness of the South African market to opt for subscriptions over long-term commitments."

#### So how does it work?

Simply go to their website (www.flexclub.co.za), choose the car you want, submit your order and complete the verification. Once you're verified, the car is delivered to you within one week.

"We work on a minimum of one-month subscriptions. If members no longer want the vehicle or want to swap it for one that better suits their lifestyle, they simply contact one of our reps."

Setting FlexClub apart from other automotive subscription services is their points system. Just as loyal flyers stand to earn miles, loyal members stand to earn points that can be redeemed in a number of ways, including reducing the cost of a subscription, and putting the points towards purchasing a car.

With flexibility and the freedom of choice being at the heart of the FlexClub concept, members have the option to purchase vehicles should they desire to do so.

"We're saying you can date the car before you marry the car, where traditionally you just had to make that decision right away," says Ruzane.

#### Gaining global momentum

Reflecting on the successes of the past two years, apart from bringing on big partners, FlexClub was recently singled out by leading US-based investor Kindred Ventures, securing US\$5 million in seed funding.

Backing numerous successful tech companies such as Uber, Virgin Hyperloop and Coinbase, Ruzane comments: "For an investor of this stature to back us, as a relatively unknown entity operating out of Cape Town, is massive."

"As your lifestyle changes, so can your car – without the stress of having to negotiate out of a deal with a bank for a car that no longer serves you."

This is the first African investment for the group and FlexClub sees this investment as part of a bigger trend: "We believe several more US and European investors are starting to get excited about the ability of African tech start-ups to build pioneering global solutions."

#### The future

"We want to be a trusted advisor to our members as they adapt their lives to live more flexibly," says Ruzane.

Looking to elevate their service offering, FlexClub is building a concierge experience. "Providing customers with 'lifestyle as a service' is a growing trend."

The long-term goal for FlexClub is to become the "home of subscriptions", providing members with the flexibility to subscribe for the perfect car and anything else they need to fit their lifestyle, and above all, their budget.

"I believe there is an increasing role we can play in this growing subscription economy, starting off with mobility. Because mobility is a key component of monthly spend. Not just for consumers, but for businesses too," concludes Ruzane.



# Cloudline: Airborne deliveries around the globe

In work that could revolutionise the delivery space, logistics company Cloudline aims to connect isolated communities to the global supply chain with deliveries of large payloads using lighter-than-air unmanned airships.

By Rob Peters



The brainchild of founder Spencer Horne, Cloudline was inspired by the desperate need for infrastructure in parts of the world where it has been lacking for decades. After spending time travelling in East Africa for work, Spencer was given an opportunity he was seldom afforded during his time in Cape Town, Boston or Johannesburg: venturing into some of the most remote areas on the planet. On the back of this, combined with the work that was being done in drone delivery, with a fervent desire to upscale payload sizes, Cloudline was born.

"There was a desire to scale things up to larger payload sizes and more mainstream goods. Not just deliver in the case of a single-dose medical emergency, but more mainstream applications too. That was the inspiration for it," Spencer explains.

"We landed on autonomous airships as a way to tackle the problem because of their ability to carry larger payloads and fly further, without having to go into the realm of military tech in terms of complexity and cost. So we are building something that's actually relevant for these markets around the world."

#### **Upping the ante**

Spencer describes the project as a "moon shot" with a number of stepping stones along the way. The vision is to connect areas of the world that are still not connected to the global economy by getting local products from regional areas into central and international markets.

"We realised that we can do that once we have hit scale as a network and once an airship has reached a certain scale. Down the line, we will be looking at getting into 50-, 100-kilogram payloads.

"The stepping stone we are at right now is 10-kilogram payloads. In terms of mainstream drone commercial services, that is already about three to five times the maximum payload that is available today.

"When that kind of payload is used for medical deliveries, you go from a single emergency dose to the possibility of restocking a clinic instead. This could help stem shortages



and prevent logistical breaks, such as a cold-storage break for vaccines, which in the current climate is very topical."

The airships have not yet gone to market, with regulatory approvals needed to operate in South African airspace, but Spencer sees this as a necessary element in the journey to ensure everything is above board. And with SA regulations among the strictest in the world, once cleared, it will make it easier in terms of the "transferability of licences".

"Our initial flying plans will be done on exemptions and waivers from the Civil Aviation Authority and are based on the safety case. So, just as an example, compared to other drones, this aircraft is highly visible in the sky. It's huge. It's bigger than the Cessna that people are afraid won't see other drones under visual flight rules. These are the kinds of things that safety officers and inspectors at the Civil Aviation Authority can appreciate," stresses Spencer.

"The real synthesised value proposition here, at its core, is the ability to send out an autonomous aircraft over long distances in a way that's safer than anything else."

"We have seen tremendous interest from markets abroad as well, so we're at the point where we are preparing to take this to market later in the year, to start doing customer demonstrations for commercial deployment. Up to now, our focus has been in that R and D phase of product development and proving our product and the aircraft. We've now begun that phase of more continuous flight and moving to deployment."

#### Simplicity in design

Spencer notes that there have been airship projects in the past, but that these have typically been at a much larger scale, with companies looking to move shipping containers, prefabricated houses and other large objects. These are huge projects which, according to Spencer, reflect the time they have spent in research and development.

He believes that Cloudline's airships provide a global solution that could reshape the world's logistical networks in a cost-effective, eco-friendly manner.

"We're proud of the fact that, in a matter of months, we've gone from drawing board to in the air with the different versions of the aircraft that we've tested so far. That's testament to the power of shrinking things down to drone size. Even though our airships are quite big, they're the equivalent miniaturisation of hardware. And that's simplicity.

"So the real synthesised value proposition here, at its core, is the ability to send out an autonomous aircraft over long distances in a way that's safer than anything else. That autonomy and safety and general usability are paired with a low cost, all of which make it applicable in a much, much broader sense than what we've seen so far in the sector.

"We'd like to see deployment into a number of markets, and to be able to bring this solution to those who need it most."

"What we are doing on the African continent is putting in place middle-mile and last-mile infrastructure, or leapfrogging it where it doesn't yet exist. The opportunity that exists in the developed markets is substituting such infrastructure where it's completely inefficient.

"This has the potential to be a global solution. We are able to reshape logistics networks in a way that is emission-free from day one, and it doesn't set any kind of double standard of 'what's good enough in the West and good enough for the rest'."

#### **Keeping it local**

While Cloudline has yet to go to market, the company is already impacting on the local economy, with a homegrown team of engineers, and international partners, including UNICEF, on board. The ability to dip into the local pool of talent has allowed for a world-class team to be built from the ground up.

"We have managed to recruit a stellar team and bring incredible talent into the organisation. We are a company of twelve now and permanently based here in Cape Town."

Cloudline has also been able to attract international venture capital to the business, and partners who see their long-term vision for the company – in South Africa, on the continent, and around the world.

Spencer readily admits that this is a driving force for them: "We'd like to see deployment into a number of markets, and to be able to bring this solution to those who need it most. This may be a bit clichéd, but at the core of the Cloudline vision is the idea of leaving the world a better place than you found it."

Spencer concludes: "For us, being able to make the product progress, gain the operational learning and go to market with an improved solution is very, very exciting."



# Pargo: Putting the parcel in your corner

Tech start-up Pargo is a smart logistics company that uses a network of pickup points at retail stores across Southern Africa to enable consumers, companies and couriers to send and receive parcels.

By Rob Peters

Lars Veul and Derk Hoekert first came to Cape Town in 2012 as part of the Groupon expansion, but after noticing the difficulties around last-mile deliveries in the country, they founded Pargo, an integrated logistics company that would provide all South Africans with access to convenient deliveries.

With scores of parcels going undelivered and a large amount of money being paid out in refunds at Groupon, the duo realised there was a gap in the market for a system that took the pain out of last-mile delivery.

"We would have up to 30% of refunds on a monthly basis, and not because customers didn't want the parcel, but because couriers could not find the customers, or couldn't deliver to the customers," Lars explains. "We realised that a pickup point system would be a working solution, and that triggered the start of Pargo."

This network allows businesses to easily deliver to their customers living anywhere in South Africa, and gives these customers the ability to collect their orders at their convenience.

The real challenge being faced by e-commerce companies is accessibility. A large portion of the population live in areas where there are poor infrastructure and no formal addresses. Even if customers live in urban areas, there is no guarantee that they will be at home to receive deliveries, due to long working hours.

While they operate in the delivery space, Lars sees Pargo as a technology company first and foremost. "We've built a logistics platform where we integrate different courier companies and warehouses. We have different APIs for different e-commerce platforms, and we also offer our clients bespoke delivery services. Though pickup point delivery is the main service, we also do home deliveries, as well as any other last-mile logistic service you can think of.

"Our core mission is to create accessibility, but also to enable e-commerce across the continent."

#### A fully integrated solution

While it may sound like a lot of moving parts, Pargo's logistics platform seamlessly integrates preferred courier companies, retail partners and consumers, making it a straightforward one-stop-shop solution.

Since Pargo launched, they have brought over 3 000 stores on board to act as pickup points for deliveries. They've done this through partnerships with some of the biggest retailers in the country, such as TFG, Clicks, Spar, Cape Union Mart, FreshStop at Caltex, and the Lewis Group, and around 700 SMEs and momand-pop stores.

The pay-off for the pickup points, of course, is footfall into their stores, while Pargo also has a revenue-share deal with them. The pickup points help to service 87% of all suburbs, towns and residential areas in the country.

"Our goal is to have a pickup point just a walk away from home, and the growth really has come from that increased demand from our clients who need to have this service."

Pargo offers a fully integrated solution, which includes communication and management of the last-mile function, contributing massively to the local tech ecosystem. The company sits between the business, the customer, and the courier company, working with all three, as well as the so-called Pargo Pickup Points.

"Our system also helps to lower costs. A courier company will deliver to you wherever you ask them to, but that can often come with additional costs, whereas pickup points allow for flat rates through consolidated delivery."

#### Huge impact and even more potential

Since its inception, Pargo has already achieved great success. They have consistently doubled the business year-on-year, and recently developed and launched new biodegradable packaging. They have also won a number of awards, including Founder of the Year at the Southern Africa Startup Awards.

Pargo is still firmly focused on South Africa, but has an eye on the rest of the continent, with Lars seeing huge potential in the e-commerce market. "What really attracted Derk and me, and what still drives us, is the huge impact that technology can make, and how over time, you can grow a business that is actually making a difference and touches a lot of people in the process."

That kind of social impact was further evident when South Africa went into Level 5 lockdown last year, catching everybody by surprise, including universities around the country. "The universities needed to help a number of under-digitised students who returned home, many of whom did not have a laptop or the

means to keep studying. How did they get that equipment to students in need?

## "Our core mission is to create accessibility, but also to enable e-commerce across the continent."

"Throughout June to September last year, universities partnered with Pargo to send tens of thousands of study materials to students, and then back again, because they would need to pick up an assignment from a pickup point and then return it. It's a simple solution, but it had a huge impact on a large number of people."

#### The future lies in more options

Lars wants to take what they have already achieved a step further. "Solving the accessibility problem is just Step One for us, because in terms of e-commerce and delivery, convenience is really what it's about. And in my opinion, this still doesn't exist in the last-mile space. So really, as we're growing the business, we are looking at adding that convenience.

"What we're creating is functionality at the pickup point level. We want to give the consumer optionality and convenience. Whether that's through click and collect, knowing what time your parcel will be delivered, or even home delivery, we want to make it possible.

"A big part of delivery logistics is returns, which we are also making possible through our pickup point network. Same-day delivery, and slowed-down delivery for customers to pay less, are also a big focus in the logistics space.

"Looking at the future, we aim to add all this functionality and more to make the logistics of an online order that much more pleasant and convenient than it is now."

Judging by their growth to date, no doubt we will be seeing more optionality and convenience for the customer soon.



## Kinetic Skunk: Engineering software quality

Kinetic Skunk engineers flawless user experiences with a unique approach to continuous testing and DevOps environments that enables a client to mitigate vulnerability and maximise efficiency.

By Nokubongwa KaMajiya



**Trust**, integrity and reliability are some of the qualities that define Kinetic Skunk, a holistic software quality assurance solutions provider. The team is in the business of building risk-mitigation solutions, rapid defect-detection solutions and early defect-detection solutions based on shift-left strategies.

Two of the business's strategic goals are pioneering cuttingedge software quality solutions to drive research, particularly in agile test automation, and implementing efficient, effective and practical software quality solutions in any given situation.

Kinetic Skunk started as a research and development-based test automation solutions provider in 2018 and has since pioneered a software engineering approach to continuous testing that has enabled them to evolve into a cutting-edge solutions provider.

Their approach to continuous testing involves a process of executing automated tests as part of the software delivery pipeline to obtain immediate feedback on the business risks associated with a software release candidate

"Our team of engineers employ a scientific approach to detect and prevent defects early, streamlining your development and ensuring success with your customers, production and business reputation."

All Kinetic Skunk's automated test suites are managed using source control and a Git-based feature-branch strategy. Their clients have the choice of using "stable" or "beta" automated test packages for testing their software, which affords them the capability of seamlessly integrating continuous testing into their DevOps solutions.

#### **Passion for performance**

"We place the utmost importance and value on developing and nurturing strategic relationships," says CEO and founder Donovan Mulder. "These relationships are built on absolute integrity, mutual trust and our passion for performance.

"We implement a testing methodology that helps in achieving continuous quality and improvement. We do not simply find issues in your solutions and systems, but also identify what it would mean for your company as a business risk," Donovan adds.

The team prioritises the defects detected and ensures that the most critical concerns are fixed first. They become an integral part of a client's development process to ensure that their business succeeds with the solutions they create.

#### Reputation of excellence

As certification in QA software testing is imperative to maintain consistent quality in the industry, Kinetic Skunk offers six months of intensive training to help acclimatise every new employee to the specific software they use.

The business is also in the process of rolling out an 18-month internship programme to enable candidates to gain specialised knowledge of software testing and quality assurance, thereby attaining competency in the field of QA in particular.

Looking ahead, Kinetic Skunk will continue to build a strong reputation of excellence, the only measure a client needs to develop quality software and maximise profits.

# Khaltsha Call Centre: Groundbreaking township tech

Khaltsha Call Centre is bridging the tech divide, creating opportunities and fuelling hope in townships.

By Sarah Brownlee

**Zandile** Tlhapi, co-founder and CEO, Lwanda Sifolo, co-founder and Head of IT, and Unathi Thethiwe, shareholder and Head of Marketing and Sales, are the dynamic trio heading up the Khaltsha Call Centre, a township-based call centre that specialises in tech- and telecommunications-based support.

A first of its kind, Khaltsha Call Centre, in the heart of Khayelitsha, is bridging the digital gap between township businesses and technology, while seeking to merge cultures and feed skills back into the township ecosystem.

"We want to perform like an international business, but with the culture of a local company, pioneering solutions in our own way," says Zandile.

Offering services in customer care, customer support, sales, research, marketing and website development, Khaltsha Call Centre uses a multidisciplinary approach to create awareness of business brands, increase their clients' sales, and build sustainable businesses that are customer-centric, innovative and digitally inclined.

#### TownshipTech Hackathon winner

Khaltsha Call Centre (using the name Tech Khaltsha) won the Safety and Security-themed pitch, as well as the overall Pitch of the Day prize in the TownshipTech Hackathon – part of the TownshipTech project of the Cape Innovation & Technology Initiative and the Western Cape Department of Economic Development and Tourism.

Following fierce competition against 40 other companies, the team walked away with a total of R12 000 in prize money, a 10-month entrepreneurial programme sponsored by ABSA, three months of co-workspace at Khayelitsha Bandwidth Barn, and a free marketing video shoot to help launch their business.

"Winning the hackathon really helped us put our best foot forward. It gave us the confidence, encouragement, and the funds to actively look for clients. Off the back of the competition, we managed to land our first client, with two more in the pipeline, and we set up our call centre more formally," comments Zandile.

#### **Continuing to overcome barriers**

Although running on limited resources and having to use



second-, and in some cases, third-hand equipment, the team is still getting a lot of inquiries. "We can tell by the types if inquiries we're getting that we're attracting the right audience," says Unathi.

"We've already employed two agents. If we manage to secure some of the work in the pipeline, we'll definitely be expanding," she adds.

The team still has a lot of work to do on educating township businesses about what call centres do, and how their service offering can positively impact a business.

"The reality is, most call centres are in cities and not geared to serve the businesses in our ecosystem. Townships are an untapped market. Our advantage in the township space specifically is that we understand the context within which these businesses are operating and, more importantly, we understand the audience they're trying to communicate with. To speak to someone in their own language is a powerful thing, and that's exactly what we can offer," says Zandile.

#### A unique market position

With Khaltsha Call Centre looking to upskill locals to join their team as more clients come on board, Zandile explains that many women and men travel to the city centre every day to work in call centres.

"People get up early and return home late – unable to spend much time with their children and families during the week. By expanding, we'll be able to offer training and development opportunities for these people to work from the area in which they live. The community around us will gain from us being here."

Summing up the ultimate dream of the Khaltsha Call Centre, Unathi concludes: "The dream is a ten-level building with glass walls, where businesses confidently trust in our abilities to solve their problems. A call centre that helps local businesses understand that they can reach out to potential clients through telephonic channels.

"The ultimate goal is to have a child from the township being able to say: 'I can be a team manager, I can be a call centre operations manager.' That is what we work towards every day!"



# Cape Town Stock Exchange: Say hello to the Mother City's own stock exchange

The newly launched Cape Town Stock Exchange, which is a rebrand and evolution of the exchange company 4AX, is set to digitise, demonetise and democratise the financial landscape.

By Sarah Brownlee

**The** search for a strong brand proposition to relaunch the 4 Africa Exchange (4AX) culminated in the creation of the Cape Town Stock Exchange (CTSE), situated in the heart of Woodstock.

Says group CEO, Eugene Booysen: "Like us, everyone cottoned on to a name – 4AX, A2X, ZAR X; even the JSE has an Alt-X – but not much effort went into what the marketing of that proposition meant. Reimagining 4AX through the launch of the Cape Town Stock Exchange, we've been able to clarify what it is we want to achieve, who we want to target and how we're going to differentiate ourselves in the market."

#### **Setting themselves apart**

Envisioning the launch of a Cape Town stock exchange since 2019, a team was appointed at 4AX to build out the underlying vehicles involved with raising capital. Through this journey, the CTSE was structured with technology as its backbone.

All the technology operating the CTSE, from the tradematching engine to the exchange platform to the corporate governance portal and the transfer secretary, has been developed in-house. "We're the only exchange in Africa that owns its technology. Everyone else rents theirs or has a software provider," says Eugene.

Targeting companies with a market capitalisation of R25 million to R2 billion, he explains: "We believe this range is the sweet spot and the growth sector in the economy, and we've built our exchange to cater specifically to this sector."

Through robust operational gearing and owning the underlying technology, the CTSE can offer their target market savings in terms of cost, risk time and complexity.

"The cost of a listing is not just monetary – it's also the time and complexity involved. For smaller SMEs and mid-cap stocks there's the additional cost of compliance that accompanies listing rules. We've set up our registry business in such a way that we have a fully fledged transfer secretarial capability where we can manage your underlying register, virtual AGMs, e-voting and proxy solicitation," Eugene explains.

"Furthermore, we can hand-hold you through the entire process post listing around company disclosure and transparency requirements, as well as provide support with secondary capital requirements like listing debt and financing for the business," he adds.

Another point of difference is that, apart from the JSE, the CTSE is the only exchange that is licensed to list both equity and debt, modelling their debt listing rules on the recommendations and requirements of the Association for Savings & Investment South Africa (ASISA).

#### Joining the Silicon Cape

With a large portion of the CTSE's target market in the Western Cape, Eugene says that it made sense to set up their headquarters close to these businesses. Given that the

majority of asset managers and decision-makers also live in Cape Town, he believes the Mother City to be the ideal location to effectively launch the debt marketplace.

"Silicon Cape is the emerging technology hub of Africa – it made sense to associate with this growing digital environment," says Eugene.

### "We're the only exchange in Africa that owns its technology."

But it's not just about Cape Town. With the CTSE looking to become the Nasdaq of Africa, it doesn't matter if a business is based in Cape Town, Cornubia or Cairo – they want to target your company to list on the exchange.

#### Looking to grow the economy

When people look at how they contribute, Eugene explains, the first thing they look at is capital, disregarding the people and structures that make up the lifeblood of the business.

"In the sector we're targeting, we've got mom-and-pop businesses – family-owned businesses that have been around for over fifty years. If we're serious about growing this underlying economy, if we're serious about job creation, we need to get capital in the hands of these entrepreneurs, and capital in the hands of this SME sector, because that's where real capital transformation lies."





## A digital nomad's oasis

Cape Town and the Western Cape has become an ideal location for remote work – and the reasons just keep piling up. By Raphaella Joannou **Widely** regarded as the tech hub of Africa, Cape Town has long been considered an attractive option for digital nomads, which has recently been affirmed by Nomad List: Citing affordability and a large expat community, the city is on the list of the 50 best cities for remote working in 2021, while its picturesque beauty is also a heady lure for digital nomads.

But what makes Cape Town and the Western Cape such an attractive option for remote work?

It goes far beyond its natural beauty and coastal lifestyle. For starters, the Mother City has one the largest open-fibre networks on the continent, a well-developed network of local and international entrepreneurs, and more than 450 tech firms employing over 40 000 people. The Cape Town-Stellenbosch ecosystem is larger than that of Nairobi and Lagos combined.

As one of the most energy-secure provinces in the country, the Cape also boasts great connectivity, which is ideal for the growing co-working space industry. This benefit was further enhanced by the roll-out of 5G, providing a faster network too.

Adding to all these assets is that there are more than 30 co-working spaces across the province – the highest number in Africa. From larger spaces offering a variety of benefits such as boardrooms and physical social networking spaces to smaller bases offering a desk and free wi-fi, the network of coworking options is a boon to any remote worker.

#### Co-working spaces

Ideas Cartel has premises all around Cape Town. From historic buildings to modern skyscrapers and rooftop pools, each location boasts its own unique features. For the city hustlers, Cartel House in Loop Street is an ideal spot to facilitate meaningful connections while maintaining a good connection. For those who hang where the water breaks, Casa Labia offers the convenience of catching some Muizenberg waves while you take your break.

Ideas Cartel also offers accommodation in the Cartel House Hotel, The Old Foundry Hotel and Casa Labia Luxury Apartments.

With the implementation of working from home and virtual networking, there has never been a better time to set up shop in the Western Cape.

For those who want to enjoy the sights and sounds of the Cape Winelands, Stellenbosch will soon have an Ideas Cartel premises too. All of this is facilitated through your digital concierge – the Ideas Cartel app. Whether you're booking a meeting room, need a caffeine top-up or a limo ride, the platform offers all these superior services.

Roamwork is another great local co-working space. Based in The Harrington, an iconic building located in Cape Town, Roamwork is a state-of-the-art collaborative workspace. Apart from offering hot desks and meeting rooms, there are shared social spaces for networking, as well as call booths and focus rooms.

This is also an incredible space for content creators: The Content Hub is a fully equipped production studio operated by Special Effects Media South Africa. You can create video content, record podcasts, stream and take photos. If required, the Special Effects Media team can assist in creating any video, webinar, streaming, audio or stills content for you. They will ensure you have everything you need from pre- to post-production.

Workshop17 caters to the remote workers and students who need customised and affordable space. Whether you need a place away from home for a few hours a week, or are relocating traditional offices for your team, Workshop17 can meet your needs. Their spaces are located in the V&A Waterfront, Gardens and Paarl.

The location in Paarl, called Tabakhuis, is a historic building located in the heritage area. Workshop17's Gardens location was once used as a storage facility for tobacco. It has been transformed into a community work and meeting place, emblematic of the transformations it promotes. The two Cape Town locations, Kloof Street and the V&A's

Watershed, attract workers of all backgrounds, promoting an environment ideal to network in.

While these illustrate the larger spaces available to remote workers, the Mother City has many more co-working spaces, such as Pier Place, Seedspace, Cube Workspace and WeWork.

There are also spaces outside the bustling city in other regions of the Western Cape. Stellenbosch is a prime example of how the local tech footprint has grown, boasting some of the country's leading tech businesses, one of its largest incubators, and a number of co-working spaces.

Based at Stellenbosch University, LaunchLab is an inspiring co-working space focused on entrepreneurial growth, and is the perfect place to connect with like-minded people. Offering bookable meeting rooms, 24/7 access, social gatherings and more, it taps into the vibrant start-up spirit of the town.

The functionality of co-working spaces across the province together with the available systems provides a balance between spontaneity and structure.

Co.Unity in the coastal town of Hermanus is an optimal place to be productive while enjoying the slower pace away from the city. Promoting a collaborative community, this space offers shared desks as well as private office space, boardroom facilities, social opportunities and much more.

#### The perfect package

With the implementation of working from home, and virtual networking, there has never been a better time to set up shop in the Western Cape. It is evident that the province offers the ultimate remote work location. The functionality of co-working spaces across the province together with the available systems provides a balance between spontaneity and structure – ideal for any start-up, team, or student.

Add the ever-present lure of the lifestyle – where else can you find a combination of pristine coastal activities, world-class wineries and restaurants, and an abundance of outdoor spaces – and you have the perfect remote working package deal.

# Expanding the tech hub of Africa

Wesgro and the Stellenbosch Network formally partnered this year to extend the Western Cape's technology footprint to the Cape Winelands. Housing some of the country's leading tech businesses, one of its largest incubators, and a number of co-working spaces, the Winelands is the perfect place for this expansion.

By Rob Peters



In May 2021, Cape Town was ranked one of the world's fastest growing regions for foreign direct investment (FDI), according to a report from fDi Intelligence, a specialist division of the Financial Times Group. The city, largely considered to be the tech hub of Africa, was also awarded second place after Cairo for FDI after showing impressive initiative in creating the necessary infrastructure for a thriving tech ecosystem.

In 2020, there were US\$88 million's disclosed investments in tech start-ups in Cape Town across 46 deals – the highest in the country. The Western Cape also has the highest number of venture capital firms, making it easier for start-ups to access funding. Together with a thriving remote working culture – with over 30 co-working spaces in Cape Town alone – and a strong digital network, the province is well placed to grow its footprint in the tech space.

With this in mind, Wesgro and the Stellenbosch Network joined forces to extend this footprint to the Cape Winelands with the development of a new digital economy strategy for Stellenbosch and its surrounds. The Cape Town-Stellenbosch corridor now has 450 tech firms (some of which are featured in this magazine), employing more than 40 000 people, which makes the local ecosystem bigger than that of Nairobi and Lagos combined.

The partnership between Wesgro and the Stellenbosch Network follows Stellenbosch's emergence in recent years as a hub of knowledge and innovation.

The partnership between Wesgro and the Stellenbosch Network follows Stellenbosch's emergence in recent years as a hub of knowledge and innovation. According to Innovus, the research and patent commercialisation unit of Stellenbosch University, seed funding for Stellenbosch-born ideas alone increased significantly – from approximately R830 000 in 2018 to R2 450 000 in early 2020.

The new investment strategy is aimed at bolstering technological innovation in the Winelands and speeding up its post-pandemic revitalisation. Set to focus on the province's growing digital economy, the strategy seeks to unlock new opportunities for digital skills training in and around Stellenbosch while also determining new matrices to significantly drive investment to the area over the coming years.

With the digital transformation ramping up significantly over the past 18 months, the need for a thriving tech ecosystem has never been more important, and stakeholders in the Western Cape, both public and private, have shown they are committed to ensuring the province continues to lead the way into the future.



## Africa's tech capital as seen from afar

Jacopo Dettoni, editor of fDi Intelligence, a specialist publication of the Financial Times, sheds some light on how Cape Town and the Western Cape tech scene is perceived in the UK.

**First** stepping into a newsroom in 2006, Jacopo has devoted himself to writing about developing economies. Published across a range of global titles, he is a regular speaker and moderator at events, discussing the perks and perils of global trade and investment.

Zooming in on the perceptions of the Cape Town and Western Cape tech scene in the UK, we got him to share his view.

"Cape Town can leverage its current financial ecosystem to lead innovation in the fintech space."

#### Cape Town and the Western Cape is seen as Africa's tech capital. Based in the UK, what are some of the positives you've seen coming out of our local tech scene?

The city's infrastructure is conducive to the development of this lively tech ecosystem. In particular, the city has an impressive number of accelerators and incubators, and boasts the highest number of co-working spaces in Africa. In addition to its start-up incubators, the city also has a nationally funded "innovation district", which aims to build a strong technology innovation community.

The University of Cape Town and Cape Peninsula University of Technology are great sources of talent for the tech ecosystem. The city also has an internet penetration of 63%, and one of the largest open-access fibre networks in Africa.

Overall, it stands out among African countries for its number of active start-ups, in addition to receiving the largest number of foreign direct investment projects in the software and IT services sector, according to fDi Intelligence and Briter Bridges figures.

## Reports suggest Africa is one of the most exciting emerging fintech markets since China. How do you think Cape Town and the Western Cape features in terms of being a force to be reckoned with in this space?

If we look at the demographics of African countries, and the current percentage of people who still lack access to financial services, the opportunity for African fintechs is almost a nobrainer.

Being home to some of South Africa's largest financial institutions, Cape Town can leverage its current financial ecosystem to lead innovation in the fintech space and develop solutions that can be socially and economically successful across the continent.

## A head start for start-ups

Start-ups are often expected to yield unrealistic results early on in a bid to secure funding, which can lead to unsatisfactory growth. Incubators and accelerators are a hugely important part of the tech ecosystem, helping these early-stage businesses navigate their initial development. By Rob Peters

**Early-stage** companies are often perceived as risky investments because of the unpredictability of their success in the markets in which they operate. The capital needed by these companies to cover the costs involved before any revenue is generated, is often considerable, and hard to come by, with local and international investors understandably exercising caution.

The Western Cape has 36 incubators and accelerators operating locally. Incubators are essentially the landing site for early-stage businesses, providing different forms of support to these businesses as well as those that are ready to scale up to access funding.

This support extends to mentorship, business model innovation, business model development, skills development and, perhaps most importantly, the network that becomes available to start-ups. Smaller accelerators, for example, will have up to 50 mentors, while the bigger accelerators will have over 300 across the world, extending the networks of these businesses exponentially.

All this guidance helps start-ups prepare for the basics of running a business, securing the Memorandum of Incorporation (MOI), legal contracts, the bureaucracy of starting a business, and business-to-business model innovation.

Accelerators can provide the same as incubators, but they do so in a far more compressed period. Accelerators tend to prefer businesses that have a defined product and customer segment.



Some of the incubators and accelerators in the Western Cape are industry-specific, like Ingenious, which is focused on educational technology, Grindstone, which focuses on financial technology, Startup Campus, which focuses on financial technology on a pan-African side, and LaunchLab, which has recently applied its focus to health and agriculture technologies.

Being focused on a specific industry provides a far more robust entrepreneurship support mechanism, because those streamlined channels attract investors in those specific sectors.

Businesses that are revenue-generating or have paying customers are generally linked to the investment stage. They are considered growth businesses and would therefore not qualify for an incubator or accelerator.

### Local incubators and accelerators supporting start-ups

Startupbootcamp AfriTech is a pan-African corporate-backed accelerator programme that helps high-growth start-ups launch in multiple jurisdictions through corporate start-up collaborations. Businesses that have benefited from the programme include:

- Lula: Convenient and sustainable rides for companies and communities
- Brownie Points: Empowers good deeds in all ways
- DataBotics: Incorporating robotics process automations, giving customers streamlined solutions

Grindstone, supported by the SA SME Fund, is a structured entrepreneurship development programme that helps high-growth innovation-driven companies to get the fundamental building blocks in place to scale quickly and become sustainable and fundable. Businesses that have benefited from this accelerator programme include:

- Autopilot Workflow Solutions: The implementation and roll-out of process-driven electronic form solutions
- LocumBase: Connecting freelance medical professionals with clinics and hospitals in real time
- TaxTim: Helping you do your tax returns quickly and easily

Savant is a commercially focused hardware technology incubator that provides bespoke business development support. Businesses they have supported include:

- Akili Labs: An innovative biotechnology company pioneering molecular diagnostics for the global healthcare system
- Astrofica: A satellite technology solutions provider
- Jonga: An easy-to-install home alarm system that connects you to your community in times of emergency

The Cape Innovation & Technology Initiative (CiTi) is the oldest incubator on the continent, supporting various innovation clusters, including biotechnology, skills development and educational technology. CiTi has assisted businesses such as:

- Zaio: A learning platform that provides highly interactive digital skills courses
- Tryad: A biotech start-up whose vision is to rebuild the world sustainably using biotechnology
- Uthini: Bringing you together with native speakers to encourage a language and perspective dialogue

The UCT GSB Solution Space is an ecosystem for high-impact early start-ups, corporate innovation, and entrepreneurship

development and research. Businesses that have benefited include:

- Kuba: Enabling large companies to diversify their supplier pool
- Legal Fundi: A law and regulation technology company
- ActivityHub: A marketplace for activity planning

LaunchLab creates scalable, high-impact businesses across sectors that matter to the core of Africa: agriculture, climate and health. Having Stellenbosch University as their backbone provides them with the resources, information and expertise to make this happen. Businesses that have benefited from LaunchLab include:

- Leaply: Easy-to-use data-driven talent-matching software
- StellieTech: Providing a variety of leading computer training courses

#### All this guidance helps startups prepare for the basics of running a business.

#### Venture studios

With the rise of more industry-specific technologies, venture studios have created spaces for new innovations and start-up businesses to be launched. With large corporates and various clients looking for first-mover advantage, venture studios provide an external environment for new products to be piloted until they are ready to be launched.

Venture studios are driven by teams who manage a product from development to launch. They largely fund the early-stage development of new products until these have been validated sufficiently for commercialisation. Successful commercialisation results in a start-up being spun out.

Cape Town houses a few of these, such as Delta, which has spun out over 30 start-up businesses since its launch in 2019. The business has worked with leading corporates, and its ventures include:

- SMEgo: A deal-making platform for early-stage businesses
- Revix: Enabling users to invest in cryptocurrency
- Strove: A rewards app that aims to get employees healthier by incentivising them to exercise and take care of themselves

In addition, the Mother City houses Cape AI. Also founded in 2019, Cape AI works with its partners to help improve their triple bottom line: people, planet and profit. Some of their innovations include:

- Enlabeler: Data-labelling for machine learning
- Moonshop: Creating autonomous shopping experiences that are accessible, simple and fast
- Autoscriber: Reimagining patient consultations in healthcare by automating knowledge extraction from speech and text



# Recognising the positive impact of tech

International economic development professional Paul Lewis is seeing more countries recognising the potential that tech provides for their economies. Here, he shares his view on what makes a successful tech ecosystem.

When we talk about tech hubs or ecosystems, we tend to talk about tech companies with very large growth prospects, which are really important, but we also need to understand that technology is fundamental to all sectors now. As such, there is now recognition of the importance of both building a tech ecosystem and ensuring that all parts of the economy adopt leading practices in technology, because that's where much of the value is going to increase in an economy.

Thankfully, there has been a positive shift around the world as more countries start to recognise the kind of potential that tech provides for their economies, both in terms of investments and as an enabler of growth and prosperity in all sectors.

Something else that I am seeing is a more explicit recognition of the role of social infrastructures and networks as a core part of technology hub ecosystems. A decade ago, some people may have considered that as a bit of frippery. Back then, there was the thinking that you need the hard stuff: the incubators and accelerators, the money and the entrepreneurial drive. Of course, you absolutely do need all of those things, but there is growing recognition of the value that social infrastructure is bringing, with things like peer-to-peer networks and expertled case studies making an impact on the industry.

#### Putting the principal pillars in place

When looking at what makes a successful tech ecosystem, I always think about four principal pillars that need to be in place: skills, infrastructure, funding, and a vibrant start-up community.

It is fundamentally important that you put in place mechanisms that will ensure you've got a strong skills infrastructure. You need the right systems in place to build your own tech skills, and that will include skills for leadership.

Quite often we have found that really exciting tech companies, particularly those that come out of institutions like universities, have brilliant ideas and innovation, but they don't necessarily have the kind of leadership and business skills needed in order to be commercially successful. Successful ecosystems help bring together the right mix of people, combining that innovative flair with entrepreneurial leadership.

In terms of funding, you need both public and private.

In my personal experience, I know that government has great intentions to do things for the right reasons, but the system of public support can often be very difficult to navigate, and can be quite complex for companies. Finding a way to simplify it and helping tech companies to get the support they need are hugely important.

There is also a need to create a vibrant private investment climate that will allow you to go from seed, or even preseed stage, with a group of angel investors who are actively putting risk capital into these early-stage companies. Sometimes, this can be supported by government.

Scotland created a mechanism that was called a coinvestment fund under a public-owned bank that I happened to lead at the time. The idea of that was that the public sector wouldn't lead, but would follow. The dealmaker was the private angel syndicate.

That really grew the scale of the market in Scotland, having started with something like two or three angel syndicates, and within a decade, we had around 20 active angel syndicates. So the scale of the market grew at this very early stage, which is very important.

Successful ecosystems help bring together the right mix of people, combining that innovative flair with entrepreneurial leadership.

When it comes to the hard infrastructure of the ecosystem, the incubators and accelerators are really important. Having funded a number of incubators myself, a lesson I have learnt is that often places put too much emphasis on the real estate and not enough on the activity that happens within. You need to make sure that whatever space development you are helping to facilitate is appropriate and affordable for these small companies. Investors do not want companies spending their first fundraise on a real estate – they want them to focus on staff, technology and market development.

You also need to ensure that it's more than just space; there needs to be value-added services within those incubators and accelerators. Sometimes places can focus on the shiny physical manifestations of the incubator rather than the internal plumbing that will help the incubator operate and work well, providing the right services to high-tech start-ups.

Then, finally, for many tech clusters, you need a really vibrant and well-populated early-stage start-up community. With the rate of technological change and market dynamics, the more early-stage companies you have, the more likely you are to see some of those firms scale up. The size of that

technology funnel helps to attract talent and investors, as well as provide feedback from the learnings and experience that start-up companies gain.

Once you have done the pre-seed and seed stages, you need to move through the various stages of funding along the path to Series A, where you're looking at your first substantial external investment from new investors, where the venture community is going to be a much more significant part of that funding. The successful places have managed to do both: with a really vibrant early stage, lots of active angel syndicates – and sometimes co-funded public investment – to active venture capitalists.

There are a couple of other things worth mentioning when looking at the ecosystems. They generally have a vibrant and internationally attractive city at their core. In my case, the City of Edinburgh, while being a city of just half a million people, is a fantastic place to live and work. So it's not difficult to entice somebody to come and look at a company based in the city.

Having institutions that boast international credibility is another important factor. The myriad universities in Cape Town and the Western Cape, with nuggets of excellence in computer sciences and ICT industry that are already globally connected, will certainly provide the foundations of a strong tech ecosystem.

If you have an attractive and vibrant city to work in, it's easy to attract people to come work there, and it's equally hard for them to want to leave. In the Western Cape, you have the city, you have the institutions, and by all accounts, the public sector, with agencies like Wesgro leading the way, you've got your cluster organisation that is committed to building the industry. So there is a positive and enabling public environment to work with.

Cape Town and the Western Cape is one of the leading tech hubs on the African continent, with a few tech start-ups and established players in place. With international investors like Amazon and SAP adding to the local ecosystem, the province will continue to attract positive interest, while also promoting great innovation and investment opportunities.

With over 30 years of experience in international economic development, Paul Lewis spent 13 years on the executive leadership team of Scotland's national economic development agency. He led Scotland's risk capital operations under the Scottish National Investment Bank as well as the agency's programmes to commercialise research and support to high-growth start-up companies, while serving as the chairman of the Intermediary Technology Institutes, covering the technology, energy and life science sectors.



# Township Tech: Building an inclusive digital economy

Promising a better life through skilled job opportunities at a higher wage, the adoption of technology in rural and disadvantaged communities is key to building successful economies. The Township Tech initiative is stimulating networks in the township tech ecosystem to make it happen.

By Sarah Brownlee

**With** the world catapulted into the Fourth Industrial Revolution because of the COVID-19 pandemic, digital technologies have the potential to significantly improve the lives and livelihoods of South Africans, particularly in previously disadvantaged communities.

Drawing on this insight, the Western Cape Department of Economic Development and Tourism (DEDAT), in partnership with the Cape Innovation & Technology Initiative (CiTi), kickstarted the Township Tech initiative – one of five areas identified under DEDAT's Technology Ecosystem project that require support to build an inclusive digital economy.

"We have a large township community in the Western Cape. This project sets out to identify, build and stimulate networks within the township tech ecosystem to allow these hubs to expand and really thrive," says Tim Parle, Chief Director of Digital Economy at the Western Cape Government.

Operating out of the Khayelitsha Bandwidth Barn – South Africa's only township-based tech hub, launched by CiTi to support tech entrepreneurship and innovation

- the project has been split into three phases: Phase One involved discovering what the challenges were in the space and getting the necessary networks set up to overcome key barriers, Phase Two is about expanding the learnings gained and plugging any gaps missed in Phase One, while Phase Three will be a deep dive into the ecosystem.

"The Township Tech focus is about creating initiatives that support local tech start-up developments to attract investors and broaden their capabilities by exposing these start-ups to what is happening internationally. We also want to promote the development of local tech solutions that can be adopted globally," says Fezeka Mavuso, General Manager at the Khayelitsha Bandwidth Barn.

#### Identifying players, problems and practical solutions

After consolidating a comprehensive township tech stakeholder database, Phase One commenced with a hybrid Round Table hosted at Khayelitsha Bandwidth Barn in November last year. Attending this milestone event were community leaders, local economic development partners, as well as government, educational institutions, business sector leaders and start-ups from the township.

"Bolstering the efforts of small business owners and entrepreneurs in informal settlements through technology is one of the best ways to build a vibrant and revitalised township economy."

"From the session we got a better understanding of how to run a tech business through the lens of township entrepreneurs – their current challenges and the technologies and support that can be used to address these," Fezeka explains.

Key themes emerging from the session included connectivity and access, existing services and support not reaching the people, the scale required on the ground to make a meaningful impact, and the safety and security of consumers and businesses in the townships.

Solutions to addressing safety and security in particular included ensuring successful prosecution and conviction of criminals through evidence to support law enforcement, and stopping cash transactions to prevent muggings and robberies in and around the township businesses.

Says Tim: "What became apparent from the Round Table brainstorm was the localised view of the start-ups in the township

tech space. If you were born in a township, studied in a township, started a business in a township, it's extremely challenging to see what is happening nationally and even internationally.

We truly believe that this model can be implemented not only throughout South Africa, but also in other countries."

"We've started addressing this gap by introducing international tech innovations, helping start-ups see how global innovations can be adopted and adapted to create local solutions. This will be an ongoing effort into Phase Two," Tim adds.

#### Teasing out the tech talent

The culmination of Phase One was the hosting of the Township Tech Hackathon to showcase local township tech talent. It focused on three main themes: safety and security, reach of services and support, and increased connectivity. Forty companies participated in the competition, and the level of innovation and professionalism from these businesses was outstanding.

Following an intense first round, six finalists were announced to compete in a final pitch competition, which took place at the Woodstock Bandwidth Barn. The winners were as follows:

- for the Safety and Security theme: Team Tech Khaltsha, coached by Carrie Leaver from the Allan Gray Makers initiative;
- for the Reach of Services and Support theme: Team Basket, coached by Lara Rosmarin from CiTi, and
- for the Increased Connectivity theme: Team Cyberspace, coached by Tyrone Adams from Skywalk Innovations.

Each team received R5 000 and a 10-month entrepreneurial programme sponsored by ABSA.

Also awarded Pitch of the Day, Team Tech Khaltsha scored an additional R5 000, three months of co-workspace at Khayelitsha Bandwidth Barn and a free marketing video shoot to help launch their business.

Looking back on the first burst of the project, Tim concludes: "Assessing the many challenges faced in our local township tech ecosystem and the solutions to these identified in Phase One, we truly believe that this model can be implemented not only throughout South Africa, but also in other countries."

Collaborating on the project, DEDAT will be supporting the City of Cape Town, which will take the lead in Phase Two of the Township Tech initiative.









