



Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

INNOVUS

Innovation and Commercialisation
Ukusungulwa kwezinto ezintsha nokurhweba
Innovasie en Kommersialisering

Innovus and Entrepreneurship on campus





CONTENTS

BACKGROUND	2	FUNDING	13
INNOVUS AND SU LAUNCHLAB'S COMMITMENT TO ENTREPRENEURSHIP	4	SU Investment Committee	13
WHAT WE HAVE BUILT AT SU	5	The University Technology Fund (UTF)	13
Innovus TTO	5	Access to TIA funds for entrepreneurs	13
The Spin-out Company Information Guide	5	NIPMO support funding	13
The Instant Start-up Toolkit™	5	NETWORKING	14
Start-up administrative support services	5	IMPACT AND ECOSYSTEM	15
University of Stellenbosch Enterprises (Pty) Ltd (USE)	6	SUCCESS FACTORS	16
The Stellenbosch University LaunchLab® (LL)	6	CONCLUSION AND FUTURE OUTLOOK	17
SunCom	8	ADDENDUM	19
At a glance: Entrepreneurship at Stellenbosch University	10	Translational Fellow Programme	20
TALENT	12		
The Translational Fellow Programme (TFP)	12		

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BACKGROUND

Stellenbosch University (SU) is home to an academic community of 31 000 students (including 4 000 foreign students from 100 countries) as well as over 3 000 permanent staff members (including 1 000 academics) on five campuses. The historical oak-lined university town amongst the Boland Mountains in the winelands of the Western Cape creates a unique campus atmosphere, which attracts local and foreign students alike.

SU is cementing its reputation as a world-class institution. According to the Times Higher Education World University Rankings, SU is one of the top 300 universities in the world, and among the top 20 in BRICS countries. It also features among the world's elite institutions in 10 of the 36 subjects featured in the QS World University Rankings by Subject for 2015. SU was also included in the 2014 CWTS Leiden Ranking, which measures the scientific performance of 750 major universities worldwide.

Many of the institution's graduates have become highly successful and well-known entrepreneurial role models. SU has long since been recognised for its successes in terms of innovation, new spin-out companies and commercial thinking. During 2008, the CEO of a highly successful start-up company formed by a few alumni of the university visited Innovus (the technology transfer office of SU) and commented that much more could be done to build a start-up ecosystem in which the university plays a central and important role. He suggested that a business incubator would have been very helpful in advancing their company if they had had such exposure as students.

At the same time, South Africa was adopting new legislation based on a model of the United States 1980 Bayh-Dole Act, governing the ownership and commercialisation of publicly funded research (i.e. with government subsidies or funding involved). The legislation paved the way for the establishment of the National Intellectual Property Management Office to oversee compliance by technology transfer offices and required that every state-funded research institution establish a technology transfer office to commercialise inventions resulting from research. The new act, the Intellectual Property Rights from Publicly Financed Research and Development Act (Act No. 51, 2008, IPR Act, unfortunately created an unhealthy expectation of commercial success for university management across the country. Research clearly showed that only 16% of technology transfer offices in the United States were either profitable or breaking even. The technology transfer model in the United States leans very strongly towards patenting and licensing inventions.

The question about impact of technology transfer activities arose frequently at SU and it became clear that licensing is not an optimal model if a university wants to make a real and strong impact with its research output. Considering models of the United Kingdom and Europe (specifically KU Leuven, Cambridge and Oxford), it transpired that there was immense potential for SU to become a hub in a knowledge region which already had elements of all the ingredients necessary to be successful. There was still significant integration and other work required to turn this into a reality. To achieve success, SU had to build an entrepreneurial mindset on campus.

Establishing an effective technology transfer office, and all the complex elements of managing innovation, constructing networks among funders, investors, governmental institutions, and industry requires meeting of minds of various stakeholders, and of course access funding.

It has taken a few years, but the energetic SU team drove the process with vigour and achieved so much more than was anticipated. Despite various challenges, an incredibly well-connected and highly effective internal support network has been established which, by proactive planning and design, is also aligned and connected with the larger ecosystem. SU now excels when it comes to supporting staff and students who want to establish companies to commercialise research, or to seek industrial interest to commercialise technology through licenses deals, or simply to access the expert services offered by the TTO.

Many of the institution's graduates have become highly successful and well-known entrepreneurial role models. SU has long since been recognised for its successes in terms of innovation, new spin-out companies and commercial thinking.

INNOVUS AND SU LAUNCHLAB'S COMMITMENT TO ENTREPRENEURSHIP

SU is among the world's top 300 universities and aspires to be Africa's leading research-intensive university, globally recognised as excellent, inclusive and innovative, where we advance knowledge in service of society. SU attracts outstanding students, employs talented staff and provides a world-class environment; a place connected to the world, while enriching and transforming local, continental and global communities.

Innovus, the home of SU's Technology Transfer Office (TTO), and SU LaunchLab (SU's start-up business builder) is deeply anchored in SU's Institutional Vision 2040 and Strategic framework 2019-2040. Innovus and the LaunchLab play an important role in identifying, protecting and commercialising SU's Innovation.

Innovus and LaunchLab strategic activities support the SU Vision, Mission and Values. The new Vision has entrepreneurship as a core focus.

It is the vision of Innovus to transform the Western Cape into a world-renowned knowledge region where the social, economic and environmental benefits of expertise and technologies are maximised commercially.

Through the TTO, entrepreneurship is fostered through many activities to support researchers to live their dream, to make innovation matter, through licensing of the innovation, or using the innovation as the core base for starting a new technology company based on the research conducted. However, extensive support and opportunities are also provided to entrepreneurs with business ideas that do not emanate from the university's research activities.

Starting a company from an academic invention is a very daunting, yet exciting opportunity for any researcher at a university. Universities are typically not geared towards commercialising their research

output especially through spin-out companies. It is therefore significant that SU has developed an interconnected and comprehensive suite of outstanding services and resources to support academic entrepreneurs not only during the start-up process, but also during the lifetime of the company. These extend to commercialisation of specific university-offered services to ensure that they are provided in an agile and commercially friendly environment. Evidence that these efforts have been highly successful are emerging and it is also spilling over into a more entrepreneurial mindset at the institution.

A variety of initiatives aims to create an Entrepreneurial Mindset among staff and students. Throughout the year, Innovus and LaunchLab host several events aimed at entrepreneurs. These events foster an entrepreneurial spirit on campus and create entrepreneurial awareness, and lead to valuable educational experiences for students, augmenting classroom teachings and enhancing the "Stellenbosch experience" for the student community.

Entrepreneurship development and support may lead to job creation opportunities for graduates, parallel career development for young researchers, and positive economic development for the community, the Western Cape, and the general public of South Africa.

WHAT WE HAVE BUILT AT SU

A number of very well-integrated and complementary structures and platforms have been established to achieve a highly agile and effective environment with transparent and efficient corporate governance to fast track and enhance SU's efforts in supporting entrepreneurship:

Innovus TTO

A small but highly effective technology transfer team that includes five internationally recognised Registered Technology Transfer Professionals (RTTP's), performs the suite of technology transfer services at SU. The TTO works closely with academic entrepreneurs to help with the commercialisation of inventions through spin-out start-up companies as well as with the LaunchLab on various entrepreneurial activities, events and capacity building. To see more about the Innovus/ LaunchLab entrepreneurial journey please visit: <https://innovus.co.za/entrepreneurship-overview.html>

The Spin-out Company Information Guide

This publication is available in on-line format to inform and educate staff and students about the various processes, expectations and agreements that form part of the start-up process. The guide includes access to templates and comprehensive supporting documents, and provides simple interpretation of some of the legal jargon a start-up company is faced with. The Information guide can be viewed online here: https://innovus.co.za/assets/files/Innovus_Spin-out_guide_V4-highres-spreads.pdf (a copy is attached as Annexure A)

The Instant Start-up Toolkit™

This proud initiative of Innovus TTO, is a concierge service for start-ups. It is an online platform with the necessary tools, forms, documents, explainer videos and company secretarial support services for SU's spin-out companies. SU start-up companies receive personalised access to relevant templates to plan, launch, and organise their business.

Templates include guidelines for business plans, financial dashboards, board and shareholder meeting agendas and minutes, investor pitch decks, company valuation, employment agreements, licensing contracts, service level agreements, etc. Other documents provided include tax forms and guidance on the registering of trade marks, patents and plant breeder's rights.

The platform also provides vouchers for free or discounted services from a wide variety of service providers vetted and negotiated by the Innovus TTO team and available to any SU start-up company.

The Instant Start-up Toolkit™ assists start-up CEOs to find the necessary forms and templates in one central place and to build a company with corporate governance from the start. This saves time so that the management can focus on getting the products and services developed and into the market. Spin-out companies are more attractive to investors if they have strong corporate governance practices in place. The Instant Start-up Toolkit™ also provides functionality to set up a virtual Data Room for any due diligence requirements by investors.

Start-up administrative support services

In addition to the Instant Start-up Toolkit™ the Innovus team provides support to young start-up entrepreneurs by facilitating the setting up of new companies including the opening of bank accounts, registering of trade marks and company names, even providing access to financial systems. The Innovus team also provides training, or arranges training, to assist entrepreneurs with administrative and time-consuming challenges (for example, assisting them to obtain a tax certificate, or to register as a supplier on a commercial

partner's procurement system, etc) and much more. The Innovus team services include company secretarial services in the early stages of the company's life and funding of courses such as "How to be a director".

University of Stellenbosch Enterprises (Pty) Ltd (USE)

This entity is a wholly owned university company that holds the university's shares in its group of companies. The Board Of Directors (BOD) comprises members that are independent directors with a strong standing in industry, and includes two academic staff members and SU's Chief Operating Officer. This structure ensures a) that the risk associated with the SU group of companies is ringfenced from the academic institution, b) that there is a dedicated and suitably qualified oversight function to ensure proper corporate governance and reporting of the university's spin-out, and c) provides a commercial vehicle with the associated agility to conduct business in an optimal commercial environment. The Audit and Risk Committee (ARC) of the USE board reports to the ARC of SU with the chair of the institution's ARC also chairing the USE ARC for transparency and alignment.

The Stellenbosch University LaunchLab® (LL)

LL is another proud initiative of Innovus. With LL we build the next generation of sustainable, high-impact companies to tackle the world's toughest challenges, mostly in Agri, Climate and Health, with a heavy dose of engineering and data science. Services include derisking of start-ups and fast tracking take-off to becoming sustainable businesses. The LL has been globally acknowledged as Africa's leading university-based incubator.

The LL staff believe that entrepreneurship is a teachable science that not only helps build great companies, but also allows entrepreneurs to navigate the complexities of life. Whether the client is a student with a business idea, an entrepreneur with an early-stage business, a university looking to build its own incubator, or an established organisation seeking to infuse innovation in its culture, the LL has an entrepreneurial tool that can serve that client's

needs. The service range of programmes and offerings mirrors the entrepreneurial journey – that helps to INSPIRE, BUILD, GROW and SUPPORT.

Some LL initiatives include:

- **Community Events** – monthly opportunities for students, researchers, faculty and ecosystem partners from various backgrounds to come together for networking, food, fun and learning. A full calendar of community events is available on the SU LaunchLab website.
- **Office Hours** – an opportunity for anyone from within the university to gain free access to world-class business consulting services. Have an idea? Need help building your early-stage start-up? Just want to learn more about ways to work in entrepreneurship? Come speak with the business building experts. Sign-ups are available on the SU LaunchLab website. See here: <https://launchlab.co.za/>
- **Experiential Learning Workshops** – monthly cross-disciplinary workshops providing an opportunity for budding entrepreneurs or curious parties to participate in fun, exciting entrepreneurial activities. Topics include *Start-up 101: The art of building the future*, *How we build start-ups: Design Thinking and Lean Start-up*, *Get out of the building! Mastering the art of customer discovery* and *Show me the money: two ways to raise funding for your start-up*. A full calendar of workshops is available on the SU LaunchLab website.
- **University Start-up Lab** – Africa's leading university technology business builder exclusively for spin-out companies. Ignite is a 5-month, outcomes-based programme that works directly with pre-seed and seed-funded ventures to develop the business, product and entrepreneur. Lift Off is a 5-month, bespoke business builder for more mature technology transfer companies seeking to scale sales, expand markets, raise significant funding, grow their teams, etc. More information and applications are available on the SU LaunchLab website.

Collaborative initiatives with Innovus TTO include:

Entrepreneurship Bootcamp

Innovus' Annual Entrepreneurship Boot Camp is a collaboration between Innovus and LaunchLab. Increasing the entrepreneurial culture across Stellenbosch University campus is of great importance to successfully create and sustain an innovative knowledge region in the greater Stellenbosch area. It is Innovus and Launch Lab's goal to increase the number of quality ideas entering their business development and support programmes by providing entrepreneurship support and creating an innovation culture among the students across all faculties at Stellenbosch University.

The boot camp focuses on the business model canvas, a tool used for start-up and young entrepreneurs. We take the students through the process of identifying the value proposition of a company, identifying their target market, marketing strategy and pricing. This knowledge is critical for stating a successful business.

Statistics from the 2019 Entrepreneurship Bootcamp¹

- Number of post graduates attended: **15**
- Number of undergraduates attended: **51**
- Number of students from the Faculty of Science: **15**
- Number of students from the Faculty of Engineering: **14**
- Number of students from the Faculty of AgriSciences: **14**
- Number of students from other Faculties: (Faculty of Medicine and Health Sciences, Faculty of Arts, Faculty of Law, Faculty of Economic and Management Sciences). **24**

The next bootcamp is scheduled for August 2022.

¹ Due to the global COVID-19 pandemic, no bootcamps were held in 2020 and 2021

SU Hackathon

The Stellenbosch University Hackathon is a collaboration between Innovus, The LaunchLab and Industry. The SU Hackathon focuses on getting talented student programmers, designers, builders, scientists and engineers to come together to learn, build and share their creative ideas, while solving industry-relevant problems innovatively. Industry partners are involved in this initiative in a hands-on manner, not only through providing sponsorship for the event, but also through the provision of the challenge framework and mentors for the students throughout the event. This enables students to network and create close ties with industry, while becoming cognisant of the problems that industry faces. Industry, in turn, is able to identify talented students for employment and market their company culture to the students.

The aim of the Hackathon is to foster an entrepreneurial spirit on campus and to create entrepreneurial awareness among staff and students. These activities lead to valuable educational experiences for students, which augment classroom teachings and enhance the "Stellenbosch experience" for the student community.

This hackathon has opened job opportunities for graduates, enabled parallel career development for young researchers, and creates a positive impact on the local developer community through encouraging the sharing of innovative ideas and networking within the community.

The first SU Hackathon (the "SU Fintechathon") was held in 2018 and was a collaboration between Innovus and two local sponsoring companies, Capitec Bank and Entersekt. The SU Fintechathon was very successful and whilst the innovations pitched during the event are yet to be developed further, it provided the opportunity for networking between the entrepreneurs and the sponsoring companies that could lead to hiring opportunities.

The second SU Hackathon was a collaboration between SU, Capitec Bank and Entersekt. We had a FinTech and Data Science challenge. This event was a huge success and we had almost 100 students participating in this event.

Both the 2020 and 2021 Hackathons were held virtually and both were also a huge success. Each of these events had two challenges (Fintech

and Data Science). This was once again sponsored by Capitec Bank and Entersekt. In 2020, a new sponsor, Explore, joined forces.

Last Friday pitching session

SU entrepreneurs are invited to an idea-pitching session on the last Friday of every month where the experienced TTO and LL teams provide advice to the entrepreneur on the areas of the idea and potential business that may be developed. To incentivise participation, prizes are sometimes awarded for the best idea pitched.

SunCom

SunCom is a division of SU focusing on the commercialisation of non-academic university projects. Although there are many synergistic overlaps between SunCom and the technology transfer office in terms of process, the focus is significantly different. SunCom focuses solely on identifying and commercialising non-research-based opportunities and University assets in an agile environment, thus actively contributing to SU's fifth-income-stream revenue and making the university a more financially sustainable institution.

SunCom applies a rigorous start-up process from ideation, Research, and Development to prototyping, Minimum Viable Product (MVP) development continuing through to commercial launch, and commercial growth through new spin-out companies with the objective of establishing commercially sound and sustainable revenue-generating businesses.

SunCom consists of these sub-divisions:

1. Residence Services
2. Botanical Gardens
3. Food Services and Compliance
4. Maties Letting Office
5. Maties Copy & Print
6. Maties Shop (now operating within a company)
7. The Central Events and Conference Office
8. Strategic Commercial Projects

Each of these divisions contributes to SU's fifth-income-stream revenue.

SunCom also works with student entrepreneurs who have innovative solutions to improve university student services.

The **Maties Shop** and **Maties Copy and Print** have been around for many years offering quality services and products to SU students and staff. It is entering a new era and is undergoing a complete renewal in line with the SU rebrand to ensure that it is relevant and correctly positioned for the current and future landscape and target market. Some exciting remodelling could be seen through taking the University's bricks-and-mortar-only store online to target a modern digitally savvy customer, not only for current on-campus students and staff but also for alumni, parents, extended family and loyal university supporters around the country and soon, around the world. This includes the new Maties online eCommerce website that can be found at www.matieshop.co.za.

The Central Events and Conference Office developed a world-class solution over the past 18 months for both internal university environments and the general market interested in hosting events and conferences at SU's available facilities.

Some of their key achievements in the first full year of business in 2021 amidst Covid-19 include:

- Proactively managing and hosting events on the University campus, including assisting academic staff to bid for conferences to be held at the university;
- Offering SU's globally renowned and historical facilities to the wider market on a rental basis at market-related rates and managed by an experienced and skilled venue-rental team providing world-class service levels and in so doing offering superior customer experience;
- Offering a world-class, end-to-end turnkey academic conference management solution for local and international conferences at SU through an experienced and skilled team of conference and event specialists;
- The Central Events and Conferencing office establishing a first-of-its-kind university venue-rental website, showcasing available SU facilities to possible customers. The website will soon showcase an innovative way to view and book SU facilities.

- CECO achieved R5 million in revenue in 2021 with only 9 months of business activity due to Covid restrictions
- Established a team of six events and conference specialists
- CECO has contributed in excess of R1,5 million towards other SU internal environments during 2021, establishing an Own Events division where the aim is not only to facilitate and offer events management services to other event owners but to start building a portfolio of SU-owned events ranging from arts and culture to business events to sport and recreation events that the public will learn to love and support while they grow in stature and reputation over time, becoming financially sustainable and actively contributing to SU's fifth-income-stream revenue.

The Strategic Projects Team is the internal SunCom "incubator", where new concepts are ideated, new opportunities are researched and developed, and where new projects are turned into commercial ventures. Here are some projects that the team is working on:

Graduate Employment Platform

Establishing a graduate employment platform to play an active part in supporting current students and graduates in securing employment opportunities in a very difficult job market with some of the highest unemployment rates globally. The platform will enable students seeking part-time work (to supplement their student fees and general living expenses while studying) to be connected to local companies wanting to employ part-time job seekers. It will also facilitate the connection between students and companies with regard to securing internships and bursaries. Lastly, the platform is aimed at becoming a trusted connection source between employers and SU graduates and experienced graduates for new graduate jobs as well as opportunities throughout their careers. In the future, the platform will also make room for additional opportunities such as support to candidates who cannot find employment, through start-up business support (where the Instant Start-up Toolkit can also be applied);

eSports and Gaming Centre

Working towards becoming the first university in South Africa to establish an eSport and gaming centre, capitalising on a global drive in this field, this is an initiative in collaboration with Maties Sport to assist our sport division to generate and build sustainable fifth-stream income while offering students a state-of-the-art recreation and entertainment solution on campus, at the same time, offering development and career possibilities in this digitally revolutionary field.

Policy Writing for an entrepreneurial university

The SunCom team has also been instrumental in spearheading the formulation of policy that would actively contribute to driving SU towards a more innovative and entrepreneurial university.

First of these was the acceptance and approval of the Short-Term Rental policy enabling the Central and Events Office to facilitate all short-term rentals of SU venues.

The Long-Term Rental policy has followed and is setting the scene for the management of all longer-term leases of SU facilities.

A sponsorship policy that will govern the facilitation and management of all sponsorship activity throughout SU is currently being drafted.

ENTREPRENEURSHIP AT STELLENBOSCH UNIVERSITY

THE FOUR STRUCTURES THAT SUPPORT ENTREPRENEURSHIP AT STELLENBOSCH UNIVERSITY (SU)



Stellenbosch UNIVERSITY
INNOVUS
Innovation and Commercialisation
Ukusungulwa kwezinto ezintsha nokurhweba
Innovasie en Kommersialisering

Technology Transfer Office of Stellenbosch University

- Technology transfer services
- Commercialise inventions via spin-out start-up companies

[Learn more](#)



USEnterprises
STELLENBOSCH UNIVERSITY

University of Stellenbosch Enterprises (Pty) Ltd (USE)

A wholly owned university company that holds the university's shares in its group of companies.

[Learn more](#)



LAUNCHLAB
STELLENBOSCH UNIVERSITY

The Stellenbosch University LaunchLab (LL)

Building the next generation of sustainable high-impact companies.

[Learn more](#)

INITIATIVES BY LAUNCHLAB:

- Community events
- Office hours consulting
- Experiential learning workshops
- University Start-up Lab
- Africa's leading university technology business builder exclusively for spin-out companies.



suncom
your value partner
Supporting the University through Business

SUNCOM

A division of Stellenbosch University focusing on the commercialisation of non-academic projects.

[Learn more](#)

INITIATIVES BY SUNCOM

- Identify & commercialise non-research based opportunities and SU assets
- Contribute to SU's 5th income stream
- Start-up process from ideation through new spin-out companies
- Work with student entrepreneurs with innovative solutions.
- Strategic Projects Team (Internal SunCom "incubator").

COLLABORATIVE INITIATIVES BY THESE STRUCTURES

Platforms that support entrepreneurship at SU



The Spin-out Information Guide

An e-book with information and guidance on the Technology Transfer process via Innovus at SU.

[Learn more](#)



The Instant Start-up toolkit

An online platform with tools, forms, documents, videos and support services for SU's spin-out companies.



The Translational Fellow Programme

A fellowship for Master's and Doctoral graduates in translating their innovation into a business or product.

[See Addendum](#)
[Learn more](#)



The Stellenbosch Network

A membership-network including innovators, entrepreneurs, investors, knowledge institutions and government.

[Learn more](#)

Entrepreneurship initiatives at SU



Entrepreneurship Bootcamp

Annual collaboration to increase the entrepreneurial culture across SU campus

- to increase number of quality ideas entering business development and support programmes by providing entrepreneurship support and creating an innovation culture among students in all faculties.
- focuses on the business model canvas to identify value proposition of a company, target market, marketing strategy and pricing.



SU Hackathon

A collaboration between Innovus, LaunchLab and Industry.

- focuses on getting talented student programmers, designers, builders, scientists and engineers to come together to learn, build and share creative ideas, while solving industry-relevant problems innovatively.
- to foster an entrepreneurial spirit on campus and to create entrepreneurial awareness among staff and students.



Last Friday pitching session

An idea-pitching session on the last Friday of every month

- to advise entrepreneurs on the areas of the idea and potential business that may be developed.

FUNDS FOR ENTREPRENEURS

Innovus can help with funding applications to entities like the UTF and TIA and will work with the LaunchLab staff to teach entrepreneurs how to pitch their business effectively to gain interest from investors.

The University Technology Fund (UTF)

The first private investment fund on the African continent that is solely dedicated to investing in university technologies from various universities.

[Learn more](#)

TIA Seed Fund for entrepreneurs

Funding for commercialisation of technologies emerging from South African universities

[Learn more](#)

NIPMO support funding

The TTO applies to NIPMO for support funds to assist with derisking of technology through techno-economic feasibility studies.

[Learn more](#)

The SU Investment Committee

Invests via USE on a case-by-case basis in some of the spin-out companies emanating from SU research. It usually takes the form of a co-investment.

TALENT

The Translational Fellow Programme (TFP)

The TFP was established by Innovus to empower recent Masters and Doctoral graduates to become entrepreneurs by translating the innovation resulting from the world-class research at the institution into innovative new businesses. See Addendum for detailed information on the TFP.

The objectives of the Translational Fellow Programme (TFP) are to:

1. Translate the world-class research performed at SU into innovative products and services that positively impact society; and
2. Enable recent graduates to pursue an entrepreneurial career upon graduation while developing entrepreneurial, technology transfer, and commercialisation skills.

The objectives are guided by Vision 2040 and Strategic Framework: 2019 – 2024. The TFP address three of the core strategic themes identified in the Strategic Framework:

1. Transformational Student Experience;
2. Research for Impact; and
3. A Thriving SU.

Innovations emanating from university research often require additional development to demonstrate a commercial use case. This process usually involves identifying and validating potential markets and testing both technical and business assumptions. A structured approach to market validation, business case development, and technology development is required to achieve this. The most effective way to accomplish this is through the continued involvement of the recent graduate who assisted with the research, thus building on the existing momentum and know-how. However, even when the graduate wants to remain involved, financial constraints often force the graduate to enter the job market.

The TFP provides the following support:

1. Up to a maximum of R325 000 to cover the Translational Fellow's living and other expenses for one year;
2. Commercialisation support from Innovus, including guidance on market validation, business case development, technology development, commercialisation strategy, and assistance with identifying and applying for relevant funding; and
3. Entrepreneurial and business development support from the Stellenbosch University LaunchLab through its University Start-up Lab (USL) programmes, depending on the stage of development of the innovation.

FUNDING

SU Investment Committee

The SU Investment Committee invests through US Enterprises (Pty) Ltd on a case-by-case basis in some of the spin-out companies emanating from SU research to prevent or limit dilution. Investment usually takes the form of a co-investment with other investors during Series Seed or Series A funding.

The University Technology Fund (UTF)

The UTF is the first private investment fund on the African continent that is solely dedicated to investing in university technologies from various universities. In the case of the UTF, any university in South Africa may submit an application for investment in a project that will be commercialised through a university start-up company. Although this fund is open to all universities in South Africa, it was conceptualised, championed and raised by Innovus TTO at SU.

Access to TIA funds for entrepreneurs

The TIA Seed Fund has the overarching goal of removing early barriers to commercialisation for technologies emerging from South African universities. The funding is unique in the sense that it places the accountability on the universities and allows for streamlined local decision making and execution at a very early stage of

commercialisation. TIA will not claim any royalties or equity in the projects that are successfully commercialised, although they have a right of first refusal for further funding. Innovus proactively procures funds for entrepreneurs who wish to commercialise their innovation, whether through a start-up or not. See more here: [https://www.innovus.co.za/assets/files/TSA%20seed%20fund%20placemat%202021\(1\).pdf](https://www.innovus.co.za/assets/files/TSA%20seed%20fund%20placemat%202021(1).pdf)

NIPMO support funding

The TTO applies to NIPMO for support funds that assist with derisking of technology through techno-economic feasibility studies. This is necessary for any entrepreneur to gain confidence in the innovation.

The UTF is the first private investment fund on the African continent that is solely dedicated to investing in university technologies from various universities.

NETWORKING

The Stellenbosch Network (SN) was established by Innovus TTO as a cross-sector and inter-disciplinary membership non-profit organisation that brings people together – from industry, government, society and academia. Their aim is to share ideas, meet each other, encourage collaboration and partnership in support of inclusive economic growth for the greater Stellenbosch area.

The role-players in the Stellenbosch Network include innovators, entrepreneurs, SMMEs, investors, locally-based corporations, social entrepreneurship enterprises, knowledge institutions and government.

SN provides a critical bridge between university entrepreneurs, local entrepreneurs and the larger business community, connecting them and creating synergies and awareness. Building a procurement platform to ensure that local entrepreneurs can tap into the larger companies' ecosystems and become suppliers to them is but one activity. SN also brings role models from industry to speak to students interested in becoming entrepreneurs to motivate them and give them guidance. SN also hosts biannual Ideation Challenges to help identify and give exposure to local youngsters with innovative ideas to find solutions for specific Stellenbosch challenges and to then assist them with their entrepreneurial journey.

SN offers an annual eight-month Entrepreneurial Mentorship Programme, providing a matchmaking framework for prospective entrepreneurship mentors and mentees. The programme provides black-owned microenterprise and innovation-linked entrepreneurs with extensive and in-depth mentorship on how to manage and grow their businesses, how to apply new innovations and/or survive difficult times, which is needed now more than ever. SN can accommodate up to 20 micro-entrepreneurs in the 2022 mentorship programme.

SN is a very important stakeholder in connecting SU's entrepreneurial activities to the larger ecosystem.

Summary

The puzzle consisting of all the pieces above forms an incredibly well-connected and strong offering to ensure successful commercialisation of university technologies, whilst influencing the local ecosystem, providing employment (primary and secondary), bringing amazing products to the market that benefit society and motivate university students and staff to think differently about their daily work and to innovate.

IMPACT AND ECOSYSTEM

The proactive approach towards promoting entrepreneurship as an alternative employment option and other opportunities for graduate students and academic staff resulted in significant growth in the number of spin-out companies of SU.

Figure 1 shows the steep growth in spin-out companies since the establishment of the SU LaunchLab business support entity in 2014, which was the first major step on the Innovus entrepreneurial support base. The successful start-up company track record created a great

awareness among staff and students of the possibilities of starting new companies with the support of the university and it contributes towards a positive and entrepreneurial culture on campus.

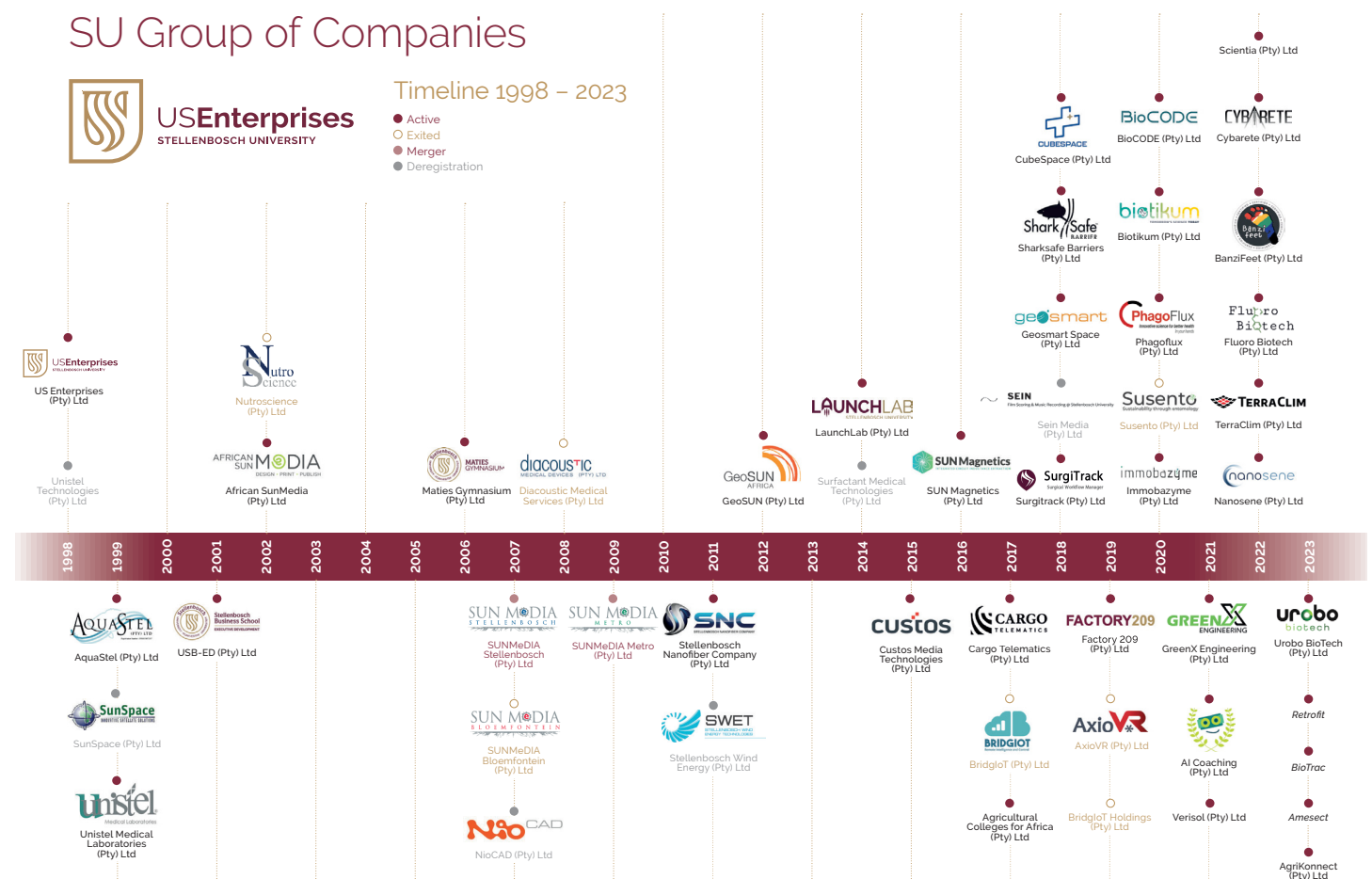


Figure 1 - SU Group of Companies Spin-out Timeline
The launch of the University Technology Fund (UTF) in January 2020 was another important milestone. It had a great impact on the university start-up environment in South Africa and the misperception among investors that university technology is not a suitable asset class. Despite the fact that it was established right at the beginning of the hard lockdown period in South Africa due to the global COVID-19 pandemic, the fund has made no less than 27 investments at four academic institutions. Of these investments, 15 are pre-seed investments.

SUCCESS FACTORS

Through Innovus, SU offers more support and suitable infrastructure for its entrepreneurs than any other university on the African continent. The institution has an outstanding track record in various areas associated with entrepreneurship and is widely recognised for excellence and leadership in this field.

The support received from SU's top management, specifically the Chief Operating Officer (COO), under whose leadership Innovus' entrepreneurship and innovation activities are thriving, has contributed significantly to kindling the entrepreneurial spirit. Adopting institutional policies governing certain types of activities in a transparent manner with clear "rules of the game" is key to success. The fact that the associated and perceived risk and commercial activities could "safely" be ring-fenced in a wholly-owned company with a strong entrepreneurial mindset on the board of directors, is another critically important success factor. Funding is a critical enabler and recently the SU Investment Committee started investing in SU spin-outs on a case-by-case basis. The UTF is a game changer for universities wishing to grow

entrepreneurial activities on their campuses. In support of this, SU's Council has co-invested with the UTF.

Being in Stellenbosch also contributed generously to our efforts to make SU *THE* Entrepreneurial University in Africa. The attractive lifestyle factors, strong industry network, stable economic and political environment and access to talent and world-class research offered by Stellenbosch contribute hugely to make the town a desirable place to establish start-up companies.

Gaining early successes and the visibility of an excellent incubator facility with a vibrant feel to it was a huge breakthrough in demonstrating that the ball was now rolling for entrepreneurship at SU.

CONCLUSION AND FUTURE OUTLOOK

Noticing the trend towards a stronger entrepreneurial culture and support system for staff and students at SU is incredibly rewarding. There is a noticeable paradigm shift across the campus. Some Faculties are contributing financially to the LaunchLab voluntarily and asking for entrepreneurial development of their students.

However, there is much more to be done. The University is planning an entrepreneurship module in every undergraduate course. A group of business leaders donated 30 hectares of land in an area to be developed as a Smart City to the university with the expectation that the university will drive the establishment of an innovation district in this space.

These are all positive steps towards affirming SU as the entrepreneurial excellence hub in the country and stimulating and contributing actively to the spring of entrepreneurship on the African continent!

We make innovation matter!

Addendum TRANSLATIONAL FELLOW PROGRAMME

A key component to enabling student entrepreneurship
at Stellenbosch University

Author:
Mr. SJ De Wet (Technology Transfer Manager)

INTRODUCTION TO THE TRANSLATIONAL FELLOW PROGRAMME

Stellenbosch University (SU) is one of the leading innovation and talent creation engines in the country. Innovus, the Technology Transfer Office at SU, established the Translational Fellow Programme (TFP) to empower recent Masters and Doctoral graduates to become the entrepreneurs translating the innovation resulting from the world-class research at the institution into innovative new businesses.

The objectives of the Translational Fellow Programme (TFP) are to:

1. Translate the world-class research performed at SU into innovative products and services that positively impacts society; and
2. Enable recent graduates to pursue an entrepreneurial career upon graduation while developing entrepreneurial, technology transfer, and commercialisation skills.

The objectives are guided by Vision 2040 and Strategic Framework: 2019 – 2024. The TFP address three of the core strategic themes identified in the Strategic Framework:

1. Transformational Student Experience;
2. Research for Impact; and
3. A Thriving SU.

Innovations emanating from university research often require additional development to demonstrate a commercial use case. This process usually involves identifying and validating potential markets and testing both technical and business assumptions. A structured approach to market validation, business case development, and technology development is required to achieve this. The most effective way to accomplish this is through the continued involvement of the recent graduate who assisted with the research, thus building on the existing momentum and know-how. However, even when the graduate wants to remain involved, financial constraints often force the graduate to enter the job market.

The TFP provides the following support:

1. Up to a maximum of R325 000 to cover the Translational Fellow's living and other expenses for one year;
2. Commercialisation support from Innovus, including guidance on market validation, business case development, technology development, commercialisation strategy, and assistance with identifying and applying for relevant funding; and
3. Entrepreneurial and business development support from the Stellenbosch University LaunchLab through its University Start-up Lab (USL) programmes, depending on the stage of development of the innovation.

ENABLING GRADUATES TO BECOME SUCCESSFUL ENTREPRENEURS

The SU ecosystem contains all the ingredients required for the establishment of successful technology- and science-based companies.

Firstly, the quality and novelty of the research is a constant source of potential innovation. This is supported by the fact that SU consistently outperforms both public and private sector South African organisations in terms of the number of PCT patent applications. Essentially, there is a high probability that whatever research a student is involved in can form the core innovation of a product or service.

Secondly, the Innovus' Technology Transfer Team¹ has a track-record of successfully commercialising the innovation resulting from university research. Innovus is arguably one of the best technology transfer teams in Africa. This is supported by the fact that five of the team members are internationally recognised Registered Technology Transfer Professionals² (RTTPs). In 2021, the team won the Department of Science and Innovation (DSI) and the South African Research and Innovation Management Association (SARIMA) Award for Organisational Excellence in Innovation Management. In 2020, the team raised R26 million of investment for SU's spin-out companies, despite the lock-down and the whole team working remotely.

Thirdly, through its comprehensive network, Innovus can assist our entrepreneurs and spin-out companies to access early-stage investment funding such as pre-seed, seed, and angel funding. For example, Innovus played a key role in the establishment of the University Technology Fund³ (UTF) and through our relationship with the Technology Innovation Agency⁴ (TIA) as an implementation partner of the TIA Seed Fund for SU, we have assisted a host of innovations to reach the level of maturity required to unlock further investment or gain market access.

Fourthly, Innovus have identified a group of skilled entrepreneurs and CEOs that want to give back to the community. This group is willing to become

actively involved in the spin-outs and provide the necessary business leadership and mentorship to the Translational Fellows.

Finally, the SU LaunchLab⁵ incubates the University's spin-out companies. The SU LaunchLab was established by Innovus in 2013 and is wholly owned by SU through University of Stellenbosch Enterprises (Pty) Ltd. The SU LaunchLab is recognised as one of the top incubators in Africa and was named Africa's number one university-backed incubator in 2017/18 and 2019/20. In 2021 the SU LaunchLab launched the University Start-up Lab (USL) programme with a specific focus on the incubation of spin-outs based on university research. The USL is based not only on the experience of successful entrepreneurs but also the learnings on what is required for the success of university spin-outs since the establishment of the SU LaunchLab eight years ago.

The Translational Fellow Programme leverages this ecosystem of world-class innovation, highly trained graduates, commercialisation expertise, access to funding, access to business experience, and incubation support to enable recent graduates to become successful entrepreneurs by providing the only missing ingredient – the ability to focus on an entrepreneurial journey for at least one year by providing the funding to cover the Translational Fellow's living expenses for one year.

The ideal outcome of the TFP is an upskilled and more experienced entrepreneur with a fundable business case, able to access the investment required to continue their entrepreneurial journey or market access and revenue generating activities in the spin-out. In the worst-case scenario, a skilled recent graduate spent a year to experientially and with structured support learn how to be a successful entrepreneur and built valuable business networks.

¹ For more information on Innovus, see our website: <https://innovus.co.za>

² The RTTP designation is awarded by the Association of Technology Transfer Professionals (ATTP) based on the professional's track record of excellence in technology transfer, evaluated by a committee of top technology transfer professionals. See <https://attp.info> for more information.

³ For more information on the UTF see their website: <https://utfund.co.za>

⁴ For more information on TIA see their website: <https://www.tia.org.za>

⁵ For more information on the SU LaunchLab see their website: <https://launchlab.co.za>

THE TFP PROCESS

The TFP releases a call on an annual basis to invite potential Translational Fellows that recently graduated or will graduate soon to apply. Applications are evaluated by the TFP Committee, consisting of a successful independent entrepreneur, a successful university entrepreneur, a representative from the SU LaunchLab, a representative of the Department of Research Development, a representative from the Post-Doctoral Support Unit, and chaired by the Director: Technology Transfer.

Applications are first screened for eligibility and then evaluated against a set of evaluation criteria.

Eligibility Criteria

- The applicant needs to be graduated or complete their degree by the end of the current calendar year. The TFP Committee may approve an application conditionally pending successful graduation.
- The applicant may not hold any employment or postdoctoral fellowships at the same time as the Translational Fellowship.
- The innovation to be commercialised as part of the TFP is disclosed to Innovus and approved for commercialisation at the time of the application.
- The applicant may not be employed in a spinoff commercialising the innovation at the time of application.
- Innovations that have successfully raised funding for commercialisation are generally not eligible. However, the TFP Committee may decide in their sole discretion to consider an application where clear evidence exists that the TFP should result in successful commercialisation and is satisfied that no other funding sources from which to support the applicant are available.
- The innovation is at Technology Readiness Level 3 (TRL 3) or higher. For more information on TRLs please see the Technology Innovation

Agency (TIA) explanation at <https://www.tia.org.za/core/uploads/2019/12/TRL-1.pdf>. If you are unsure of the TRL, contact the Innovus technology transfer professional assigned to the innovation.

- A co-inventor or enabler for the innovation to be commercialised, who is a full-time academic staff member of SU, has agreed to act as the applicant's Host for the TFP.
- The Host's Department is willing to host the applicant and provide access to the necessary facilities.
- The Innovus technology transfer professional assigned to the innovation supports the application.

Evaluation Criteria

The TFP Committee rank each application. The top-ranking applications are approved. The number of approved applications is subject to the availability of funding and the discretion of the TFP Committee. The TFP Committee uses the following criteria to evaluate and rank the applications:

- Market interest in the innovation;
- Business viability of the innovation;
- Technical feasibility of the innovation;
- Competitive advantage and differentiation of the innovation;
- Availability of the resources to complete the planned activities; and
- Whether the objectives and activities provided in the application demonstrably improve the innovation's commercial potential either through unlocking funding or investment for further commercialisation, resulting in a license agreement, or introducing a product or service to the market.

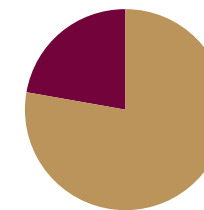
INTERESTING INFORMATION ON THE APPLICATIONS FOR THE 2022 CALL OF THE TRANSLATIONAL FELLOW PROGRAMME

Applications Received

We received nine applications for the 2022 Translational Fellow Programme. Most of the applications were received from PhD students who recently graduated or will be graduating at the end of 2021.

4. What postgraduate degree are you currently enrolled for?

PhD	7
Master's	2

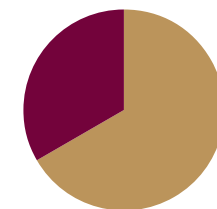


Customer Engagement

Two thirds of the applicants had engaged with potential customers to validate the market need solved by the innovation before submitting the application. This speaks to the quality and potential of the applications we received. One applicant had engaged 220 potential customers.

19. Have you engaged with potential customers to validate the problem or need?

Yes	6
No	3

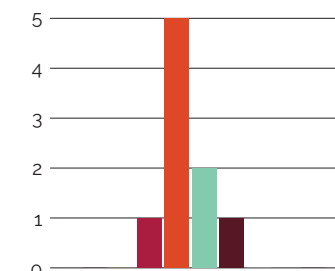


Technology Maturity of Applications

The majority (five) of the nine applications received were for the translation of technology at Technology Readiness Level⁶ (TRL) 4 [Lab Prototype].

9. What is the Technology Readiness (TRL) of the innovation that is the subject of the disclosure?

TRL1	0
TRL2	0
TRL3	1
TRL4	5
TRL5	2
TRL6	1
TRL7	0
TRL8	0
TRL9	0

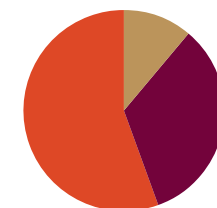


Commercialisation Route

Most of the applicants want to follow a spin-out route for commercialisation of the innovation, demonstrating their interest to become the entrepreneurs of the future.

32. What commercialisation route are you following for the innovation?

Licensing	1
Spin-out	5
Not decided yet	3



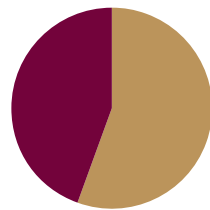
⁶ TRL levels are an internationally recognised way for measuring technology maturity. For more information please see: <https://www.tia.org.za/core/uploads/2019/12/TRL-1.pdf>

Participation in SU LaunchLab Programmes

More than half of the applicants have participated in a SU LaunchLab programme.

35. Have you participated in any of the LaunchLab programmes yet?

● Yes 5
● No 4

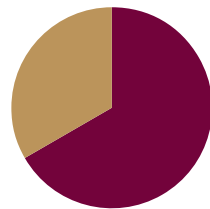


Formal Market Interest

One third of the applicants have already received formal market interest in the product or service based on the underlying innovation in the form of a letter of intent.

37. Have you received any formal market interest (e.g. a letter of intent)?

● Yes 3
● No 6

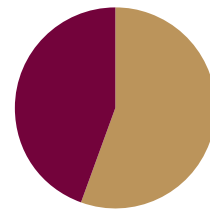


Seed Funding

Five of the nine applications received some form of commercialisation funding in the form of either UTF Pre-Seed fund and or TIA Seed Fund. Both programmes do not fund the team working on the development, emphasising the importance of a programme like the Translational Fellowship Programme to ensure we can retain the recent graduate to assist with the commercialisation.

41. Have you received any funding to commercialise the innovation?

● Yes 5
● No 4



Summary of the information on the 2022 TFP Applications

The information above demonstrates:

1. A clear need for the TFP programme, specifically in the context of entrepreneurship development. All the applicants qualified for the programme, and most had already started tackling some of the most important hurdles they need to overcome to translate the innovation from their research into a viable product or service.
2. The interest from our recent graduates to become the entrepreneurs of tomorrow.

The only limitation to supporting all the applications is the availability of funding. The TFP is currently funded from SU's Strategic Fund with the budget allowing for two Translational Fellows to be supported per call. We are actively looking for co-funding from other sources to expand the TFP and support more applicants in the following years.

RESULTS FROM THE 2021 COHORT OF TRANSLATIONAL FELLOWS

The two Translational Fellows who successfully applied to the 2021 call made excellent progress towards achieving the objectives of the TFP.

The market research and engagement of the one Fellow has led to a Material Transfer Agreement (MTA) with a potential commercialisation partner to test the innovation and will likely result in at least a License Agreement if the tests yield the expected results.

test the original innovation and the newly patented innovation. Through her participation in the SU LaunchLab programmes and work with Innovus the Fellow played an integral role in developing the business case for a spin-out based on the various innovations. The spin-out is expected to be established in the first quarter of 2022.

The other Fellow's work has resulted in the development of a newly patented invention, an MTA with a potential commercialisation partner to

CONTRIBUTE TO THE DEVELOPMENT OF THE ENTREPRENEURS OF TOMORROW

Organisations and individuals that share our belief that we need to empower more entrepreneurs, create more jobs, and leverage the innovation from publicly funded research in the country to create a thriving South Africa, are invited to become partners and co-funders of the SU TFP.

Interested parties can contact the TFP Manager, Mr Joubert de Wet via email at sjdewet@sun.ac.za.

