REPORT TO COUNCIL 2019/20

NAME OF RESPONSIBILITY CENTRE: Operations and Finance
RESPONSIBILITY CENTRE HEAD: Stan du Plessis
DATE: September 2020

It takes a team

"*"None of us is as smart as all of us,"* said the well-known author of The One Minute Manager, Ken Blanchard. To compile a report like this takes teamwork and collaboration from a group of people that is committed to Stellenbosch University – in and out of Lockdown.

A big thank you to the heads of our Responsibility Centre's five divisions and their teams; it is their work that this report covers and they provided much of the written content. The division heads are:

- Manie Lombard from the Finance Division
- Nicolette van den Eijkel from Facilities Management,
- Anita Nel from Innovus and SUNCOM
- Ilhaam Groenewald from Maties Sport; and
- Attie Juyn from Information Technology.

The work of this RC is not possible without the effort of colleagues in all the RC's and faculties. My gratitude to them for their outstanding work.

This report speaks of a team's hard work, dedication and commitment to Stellenbosch University. Over the past few months, our RC's team had to reinvent themselves to ensure business continuity when the COVID-19 pandemic struck, and they have done so with efficiently, dedication and a tremendous amount of innovation. I am proud to be part of this team.

Stan du Plessis
Chief Operations Officer

1. INTRODUCTION

In the Responsibility Centre: Operations and Finance, we are specifically task with delivering "a world-class environment; a place connected to the world". I report here on the five divisions that drives this RC, namely the divisions of Finance, Facilities Management, Information Technology, Innovus (including SUNCOM) and Maties Sport.

The report describes how we deliver on Stellenbosch University's strategy through a dedicated staff corps, through good governance and by maintaining an effective network.

Through continuous improvement of our operations we relentlessly pursue efficiency and the cultivation of a culture of entrepreneurship, ownership and improvement in everything we do. Council has seen references to the mindset of operational excellence, a commitment to continuous improvement, in these reports since 2018 and that commitment was tested to an unprecedented degree by the challenges presented by the COVID-19 pandemic lockdown. The past few months saw us transforming ourselves into a digital responsibility centre where online conversations and remote working conditions became our new reality, while the operational needs of campus were served effectively and unexpected new opportunities unlocked.

It is not an exaggeration to say that 2020 has been a year without precedent for Stellenbosch University.

2. THE OPERATIONS AND FINANCE TEAM

The RC: Operations and Finance comprises five divisions with a total staff complement of 624.

Our five management teams are:

Facilities Management team:
Chief Director Nicolette van den Eijkel heads up the management team of Facilities Management for her second five-year term at the University. The team manages 198 staff members.

Figure 1: Facilities Management team members *are, back from left to right: Dan Prata (Director: Facility Services), Francois Swart (Director: Development Planning and Design), Japie Engelbrecht (Director: Project Management) and Nadeem Gafieldien (Director: Property Services). In front from left to right: Viljoen van der Walt (Director: Risk Management and Campus Security), Nicolette van den Eijkel (Chief Director: Facilities Management) and Madeleine Malan (Director: Business Management).*

Finance team:
Manie Lombard, Chief Director Finance, takes the lead in the Finance Division with its 144 staff members.

Figure 2: Finance Division *management, from left to right: Caro Olivier (Deputy Director: Funds and Asset Management), Pieter Wever (Director: Transport Services), Werner Abrahams (Deputy Director: Student Fees and Debtors), Annemi Murray (Director: Financial Planning and Budgeting), Manie Lombard (Chief Director: Finance), Brendon Gindlay-Whieldon (Financial Controller), Reinet Uys (Director: Financial Services), Elizabeth de Beer (Deputy Director: Financial and Management Systems) and Riaan Basson (Director: Purchasing and Provision Services).*

Innovus and SUNCOM
The management team of Innovus, led by Anita Nel, Chief Director: Innovation and Business Development, is pictured in Figure 3 during an online management meeting. They lead the Innovus and SUNCOM teams consisting of 69 staff members.

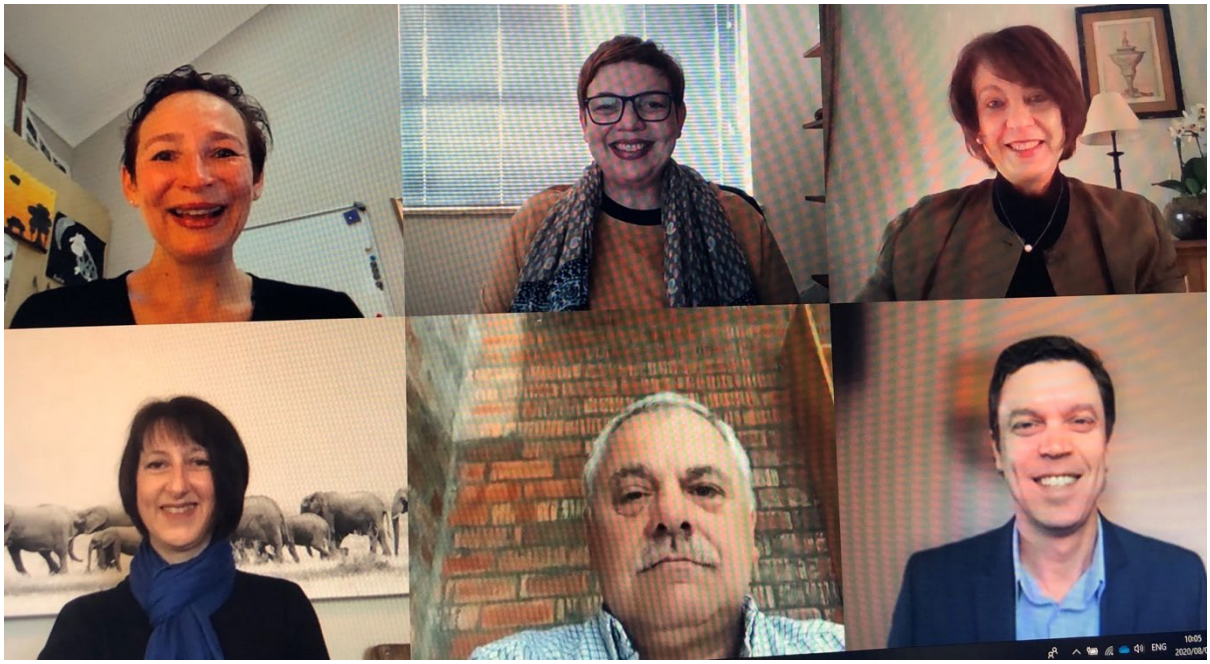


Figure 3: Innovus and SUNCOM *management, top from left to right: Madelein Kleyn (Director: Technology Transfer), Doris Peters (Operations Coordinator: Spin-out Companies and Product Development), Carol Kat, Head: Copyright, Trademarks and Short Courses). Bottom from the left are Anita Nel (Chief Director: Innovation and Business Development), Hein Swanepoel (Senior Director: SUNCOM) and Stefan du Toit (Innovation and Commercialisation Strategist).*

Information Technology

Senior Director Attie Juyn heads up the management team at Information Technology who manages the division's 176 staff members.

Figure 4: Information Technology (IT) *management team members, back, from left to right: Johann Kistner (Director: Academic IT), Attie Juyn (Senior Director: IT) and Ralph Pina (Director: IT Institutional Software Solutions). Front: Zenobia Davidse (Director: IT General Support Services) and Joe Smit (Director: IT Infrastructure).*

Maties Sport
Ilhaam Groenewald, Chief Director, leads the management team at Maties Sport. Altogether 35 staff members work in the division.

Figure 5: Maties Sport *senior management team, from back to front: Sean Surmon (Head: High Performance), Gustav Venter (Head: Centre for Sport Leadership), Andy de Bruin (Accountant: Financial Planning and Asset Management), Jerry Laka (Director: Support Services) and Ilhaam Groenewald (Chief Director).*

2.1 Staff transformation

The RC's demographic profile is shown in Figure 6 below. The RC adopted a well-defined employment equity plan in 2018 and there is considerable diversity in the staff component. However, progress towards greater diversity – especially at senior level – has been too slow.

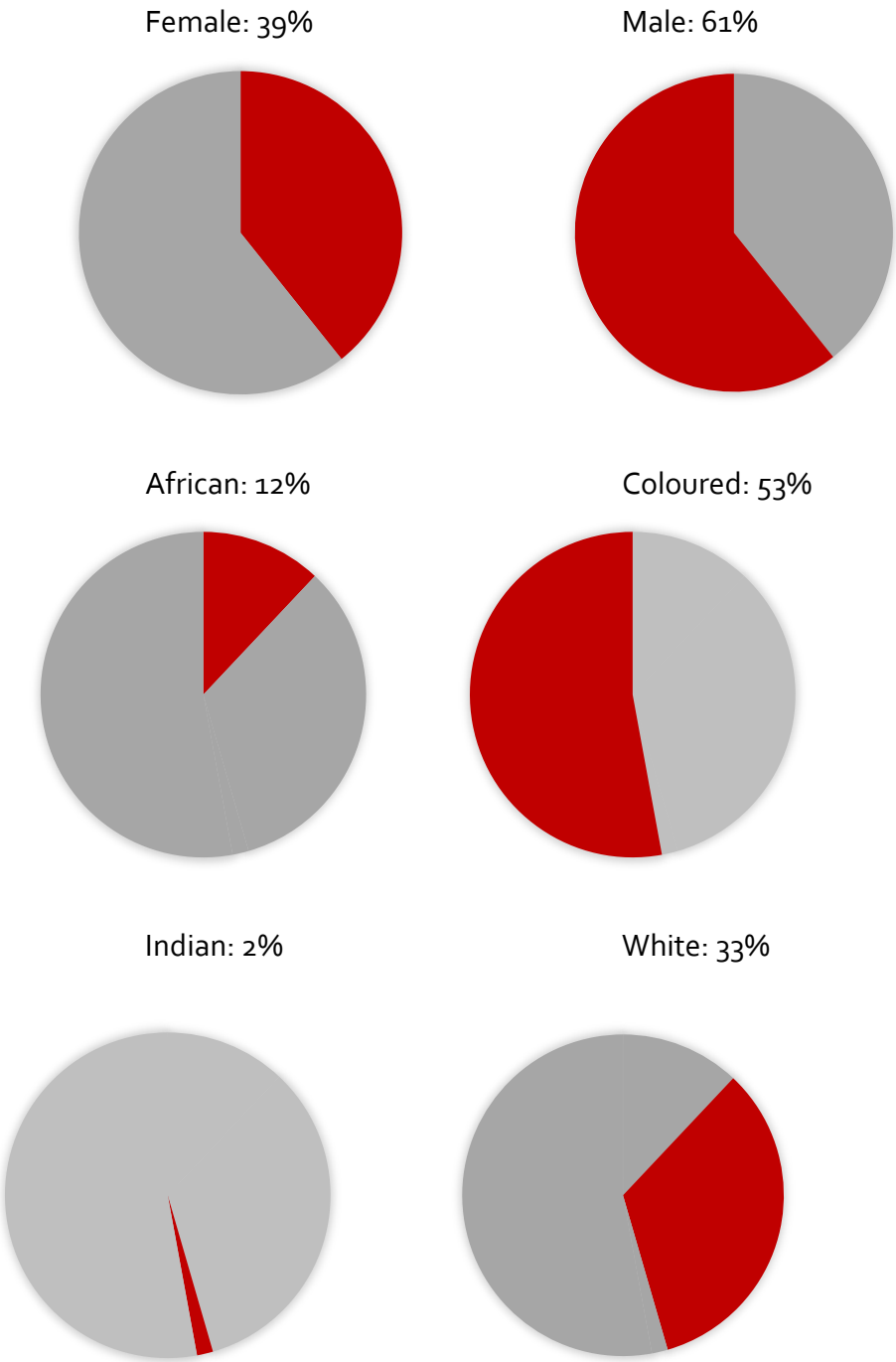


Figure 6: *Staff composition by gender and race*

2.2 Virtual Townhall Conversation

The month of May saw us hosting the first-ever online Townhall Conversation for the entire Responsibility Centre of Operations and Finance. We honoured some lockdown heroes, tested our general knowledge and enjoyed each other's company for a little while. Since the majority of the RC's staff are still working from home, it was wonderful to catch up and hear how everyone were doing their part to ensure the continuous operations of University.

Three staff members were nominated to take part in the challenge of becoming the RC's "Lockdown hero". Nathalie Koen from Facilities Management, Bonakela Mpechini from Innovus and Grant van Velden from Maties Sport shared their lockdown stories with us.

Figure 7: *Our lockdown heroes from the left: Nathalie Koen, Bonakele Mpechini and Grant van Velden.*

By popular vote Nathalie Koen, Administrative Officer at Facilities Management, was selected as the RC's lockdown hero. She was one of the first FM staff members back on campus during level 5 of Lockdown, to process project payments. Between home schooling and dealing with the challenges of her husband continuing to work as an essential worker, she kept her work up to date at the high standard we've come to expect of her.

Second place went to Bonakele Mpechini, senior botanical assistant at the SU Botanical garden. When lockdown started, Bonakele cancelled his leave and moved to the premises of the garden by himself – away from his family, so that he can continue to care for the garden.

Grant van Velden, our third place winner and manager: sport technology and training innovations at Maties Sport, has set up the high performance unit with online training sessions for coaches and a diverse number of sport groups during lockdown. In this way he ensured that all staff were trained on the newly purchased technology to be used once we get back to the normal training of our student-athletes.

2.3 Virtual Women's Day

The RC held its first Virtual Women's Day on 6 August to celebrate our women colleagues with a 90-minute programme filled with engaging content. Rachel Kolisi, philanthropist,

mother of four, and wife of Springbok captain Siya Kolisi, was our special guest and speaker. She shared her thoughts on the theme: You are enough, in an inspiring address that includes references to the medieval hero Joan of Arc.

Our RC's women could engage with our special guest and with each other thanks to virtual technology that made this day possible. Women's Day also included a lockdown photo competition for which our female colleagues submitted their lockdown photos showcasing a moment that captures their lockdown experience and had the opportunity to win some great prices during a virtual "spin-the-wheel" competition.

3. GOVERNANCE IN OPERATIONS AND FINANCE

3.1 Finance Division overview

Aligned with the core strategic theme of a thriving Stellenbosch University and the objective of the 2019 – 2024 planning cycle of financial sustainability, the Finance Division focuses on facilitating sound long-term financial planning and budgeting processes, establishing appropriate policies and procedures to ensure proper corporate management and cost-saving initiatives, practising strategic procurement processes aimed at sustainability (institutional and environmental sustainability), as well as maintaining effective financial systems and producing sound financial reports.

The division comprises 142 permanent positions, four ad hoc positions and seven fixed contract positions. Its annual budget is R54,2 million.

The mission of the Finance Division is:

- to be aligned with SU's institutional objectives and strategic foci;
- to confirm that Finance, being a support service environment, strives to assist the faculties, other professional and support environments and SU as a whole in achieving their strategic goals; and
- to ensure that the Division as a whole grow continuously in operational efficiency.

The Finance Division supports SU in pursuing the institutional objectives by ensuring that the required financial services and information are provided to all stakeholders through implementing and maintaining effective business processes and controls.

The Division provides this service to a wide spectrum of stakeholders (clients), including:

- SU Council and relevant sub-committees of Council;
- SU management;
- Staff in faculties and other Professional and Administrative Support Services (PASS);
- Students, their parents and sponsors;
- Department of Higher Education and Training (DHET);
- Local government;
- Donors and other funders; and

- Suppliers.

The Finance Division's clients and their needs form the core of the Division's activities, where these activities include:

- Day-to-day financial transactions and management;
- Financial planning and budgeting;
- Financial reporting;
- Procurement services;
- Management of student fees and loans;
- Financial management of all SU assets, including cash flows; and
- The Mobility Plan.

The following table demonstrates the scope of the Finance Division's activities:

Table 1: Selected financial indicators

Item	*2014*	*2019*	*% increase*
Total SU revenue (R'm)	5 140	5 902	+15
Property, books & equipment (R'm value)	4 343	6 005	+38
*Investments (R'm)**	6 631	9 549	+44
Active cost centres	13 036	15 382	+18
Km travelled using 299 SU vehicles ('000)	4 119	3 777	-8

*the real annual yield on this portfolio was 7.4% over the last 19,75 years.

The Finance division always strives to deliver excellent support services, in line with our support service agreements entered into with all faculties. The consistent application of SU's financial policy and practices ensures accountability in the University's financial management. Consistent with this approach the institutional budget as well as corporate financial reporting is developed and managed to ensure the responsible utilisation of the University's resources.

A culture of respect and compassion between team members, as well as for our clients, internal and external, is explicitly promoted. The Finance Division liaise closely with the student community to assist with the financial needs of students as well as to ensure transparency about SU finances.. This includes the development of various mechanisms for managing and settling student accounts including the provision of alternative electronic payment platforms and publishing of a Frequently Asked Questions document with payment options and contact details.

As a part of the recent (August 2020) re-organisation of responsibilities in the Rectorate the division for Bursaries and Loans, previously a part of the Responsibility Centre: Learning and Teaching, joined the Finance Division. Deputy-Director : Bursaries and Loans, Mr Arrie Hanekom leads this team of 12 colleagues and their inclusion in the Finance division will create a comprehensive financial service to Stellenbosch University students.

A schematic representation of the operational composition of the Finance Division is shown below (the Bursaries and Loans Division will also be included from 1 Aug as the ninth division reporting to the Chief Director: Finance):

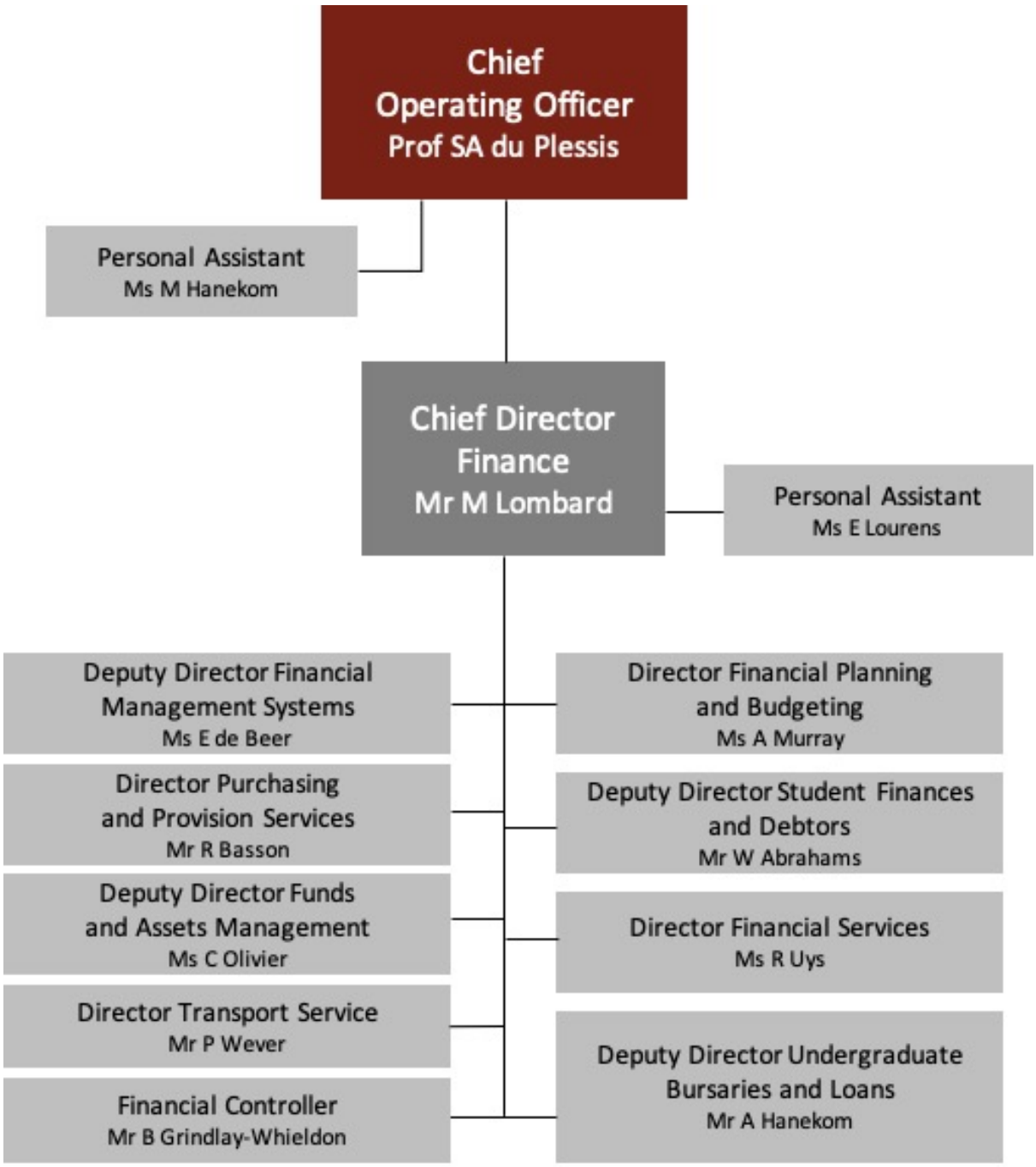


Figure 8: *Operational composition of the Finance Division*

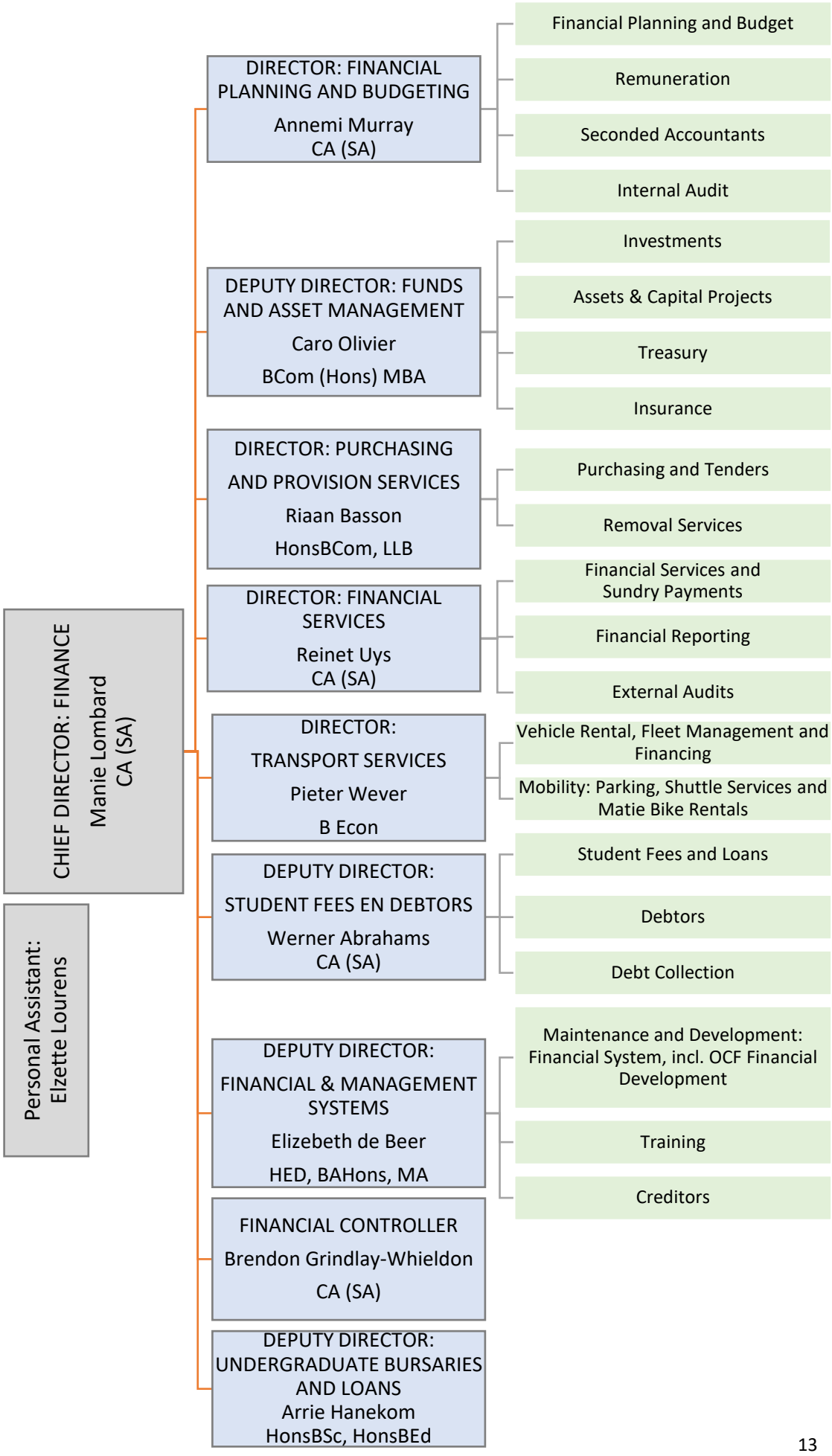

CHIEF DIRECTOR: FINANCE
Manie Lombard
CA (SA)
Personal Assistant:
Elzette Lourens
DIRECTOR: FINANCIAL PLANNING AND BUDGETING
Annemi Murray
CA (SA)
Financial Planning and Budget
Remuneration
Seconded Accountants
Internal Audit
DEPUTY DIRECTOR: FUNDS AND ASSET MANAGEMENT
Caro Olivier
BCom (Hons) MBA
Investments
Assets & Capital Projects
Treasury
Insurance
DIRECTOR: PURCHASING AND PROVISION SERVICES
Riaan Basson
HonsBCom, LLB
Purchasing and Tenders
Removal Services
DIRECTOR: FINANCIAL SERVICES
Reinet Uys
CA (SA)
Financial Services and Sundry Payments
Financial Reporting
External Audits
DIRECTOR: TRANSPORT SERVICES
Pieter Wever
B Econ
Vehicle Rental, Fleet Management and Financing
Mobility: Parking, Shuttle Services and Matie Bike Rentals
DEPUTY DIRECTOR: STUDENT FEES EN DEBTORS
Werner Abrahams
CA (SA)
Student Fees and Loans
Debtors
Debt Collection
DEPUTY DIRECTOR: FINANCIAL & MANAGEMENT SYSTEMS
Elizebeth de Beer
HED, BAHons, MA
Maintenance and Development: Financial System, incl. OCF Financial Development
Training
Creditors
FINANCIAL CONTROLLER
Brendon Grindlay-Whieldon
CA (SA)
DEPUTY DIRECTOR: UNDERGRADUATE BURSARIES AND LOANS
Arrie Hanekom
HonsBSc, HonsBEd

Figure 9: *Operational structure of the Finance Division.*

Resources

Staff numbers in the Finance Division have remained constant over the past few years despite increased volumes and transactions, as well as stricter legislation and reporting and auditing requirements that SU has to comply with. It is envisaged that a round of formal performance evaluations for all divisions will be done once the impact of the new financial system (SUNFin) is known.

The Finance Division, as all other PASS environments, have been under pressure due to the large increases in transactional volumes as well as the legislative reporting requirements. Without much scope for additional positions, we've managed to maintain outputs by constantly trying to work smarter and more efficient. With staff turnover due to retirements and/or resignation, we've been able to assess the current needs and have redesigned certain positions to cover for the new and current needs and this will be done on a larger scale following the implementation of SUNFin.

The salaries of the Finance Division, as of other PASS environments, are funded from the main budget (R48,6 million for remuneration or 108 positions), except for the Transportation services funded fully from external funds (36 positions) and a small number (5) of other externally funded positions[1]. Multiyear staff plans are managed prudently to ensure the affordability of the division given the current budget allocation.

Transformation

The Finance Division is committed to increasing the diversity of its staff corps in accordance with SU's strategic focus on diversity in order to make the University relevant and accessible to the broader South African community. Staff turnover provides important opportunities in this regard.

Even though the Finance Division has succeeded in making appointments at senior levels in the past year, achieving diversity remains a serious challenge. Despite the recruitment processes we followed (in addition to the normal advertising process) for all senior positions (post levels 8 to 6), the division struggles to attract a sufficiently diverse pool of

[1] These 5 externally funded positions are:
• 102229 (Student cards): Funded 60% from income from cards and 40% from IT, since the person also assists with queries at the IT Hub;
• 106635 (Administrative assistant Tygerberg): Funded 50% from income from cards at Tygerberg and 50% from ad-hoc position's funds;
• 104124 (Financial System assistant: back-office): Contract position funded from ICT budget;
• 99326 (Project accountant): Funded from cost recovery on research projects and contribution from the Vice-Rector: Research, Innovation & Post Graduate Studies; and
• 108305 (Full cost accountant): Funded 50% from main budget and 50% from cost recovery on research projects and contribution from the Vice-Rector: Research, Innovation & Post Graduate Studies.

candidates, particularly because of remuneration in competition with more attractive external offers, especially from the Financial sector.

As an alternative strategy the division tries to *grow our own timber* and a large focussed is placed on middle management (job grades 8 & 7) to develop those staff for possible promotions within the division.

3.2 Overview of 2019/2020

The Finance Division was able during the year to fill critical positions that became vacant due to retirements and resignations. However, the objective is to use vacant positions where possible for the alignment of the Division's structure with best practice processes and workflows required by the new OCF system.

Despite the many challenges, the Division was able successfully to deliver on the set goals that of the previous planning cycle. Most goals extend over several years, and the annual focus is on refining, further integration and optimising of processes.

What follows is feedback on the progress in terms of the strategic priorities as provided in the previous year's plan:

3.2.1 Ensure business continuity for SU during the COVID-19 pandemic

The following decisions were taken by the Council and Institutional Committee for Business Continuity (ICBC) of SU following recommendations from the ICBC's Finance and Legal Workstream to prepare the University for this disruption and protect the institution against unforeseen institutional expenses relating to the management of the COVID-19 pandemic:

I. Council authorised nearly R105 million to be held in reserve, which was secured as follows:
    a) The entire surplus of R45,24 million on the 2019 main budget was allocated to the Contingency Reserve;
    b) An additional amount of R45 million on the 2020 budget – resulting from a larger-than-expected state subsidy announced in December 2019 and a projected surplus for 2020 – was also allocated to the Contingency Reserve; and
    c) the currently unallocated R14,5 million in the institutional block of the 2020 main budget was also transferred to the Contingency Reserve for expenses relating to COVID-19.

    In addition, Council noted that spending from main-budget balance funds in responsibility centres and faculties had been embargoed. Until further notice, expenditure for any new initiatives from balance funds will only be possible with the permission of the COO or the Chief Director: Finance. This amounted to reserves in excess of R350 million.

II. Payment relief measures for students include the following:
    a) Whereas interest at prime rate is normally levied on arrear accounts, no interest will be payable for the four-month-period from 1 April until 31 July 2020 (later extended to end-September). Interest already levied for April was reversed.
    b) No levies will be charged currently for parking, societies, sport clubs, and residence and PSO activities. These levies will be determined and billed according to actual usage when there is more certainty about this. Levies to the amount of R18 million already charged was reversed before the end of May. Temporary facilities were loaded on the affected cost centres to bridge the temporary cash flow risk. The adjusted levies will be loaded early in the 2nd semester.
    c) Given the evacuation of students from campus, as well as the financial pressures on students and their sponsors, SU determined an appropriate smaller instalment of R15 040 for residence fees payable at the end of May 2020.
    d) Furthermore students will only have to pay for the actual number of weeks in their residence. This actual amount billed will be reflected in the final September statement for each resident student.

III. Funding of research budget shortfalls due to COVID-19 from the Contingency Reserve according to the following approved process:
    a) Researcher to make contact with DRD who will assist with the process including negotiations with the funder and/or contract adjustments;
    b) Prepare a reworked budget. Projects accountants within DRD will be able to assist with the process.
    c) Calculate and agree the calculated budget shortfall for the project based on the revised funding approved by the funder.
    d) For a real loss incurred during lockdown/restrictions: Prepare a summary of the costs incurred with a short motivation/explanation.
    e) DRD, with recommendation from the Faculty, will then submit the funding request to Finance for both these categories.
    f) Manie Lombard (Chair: ICBC Finance and Legal) to review the funding proposal for recommendation to the Rectorate for funding from the Contingency Reserve (process for application for funding from the Contingency Reserve to be communicated separately).
    g) Once approved, funds will be transferred to the dedicated cost centre and will be treated as co-funding from the University.

3.2.2 Implement SUNFin by January 2021

The Rectorate confirmed the recommendation of the Technology and Information Committee regarding the selection of a service provider for the SUNFin system on 27 November 2018, after a formal Request-for-Proposal-process in terms of the SU Tender Policy. SU then contracted Visions as implementation partner and Oracle to implement Oracle ERP Cloud as SUNFin over a two-year period starting 9 April 2019.The total

implementation cost over the two-year period is R46,7 million and the annual licence cost from 2021 is R4,6 million.

A **Project Governance Structure** was approved for the execution of the SUNFin and SUNStudent projects:

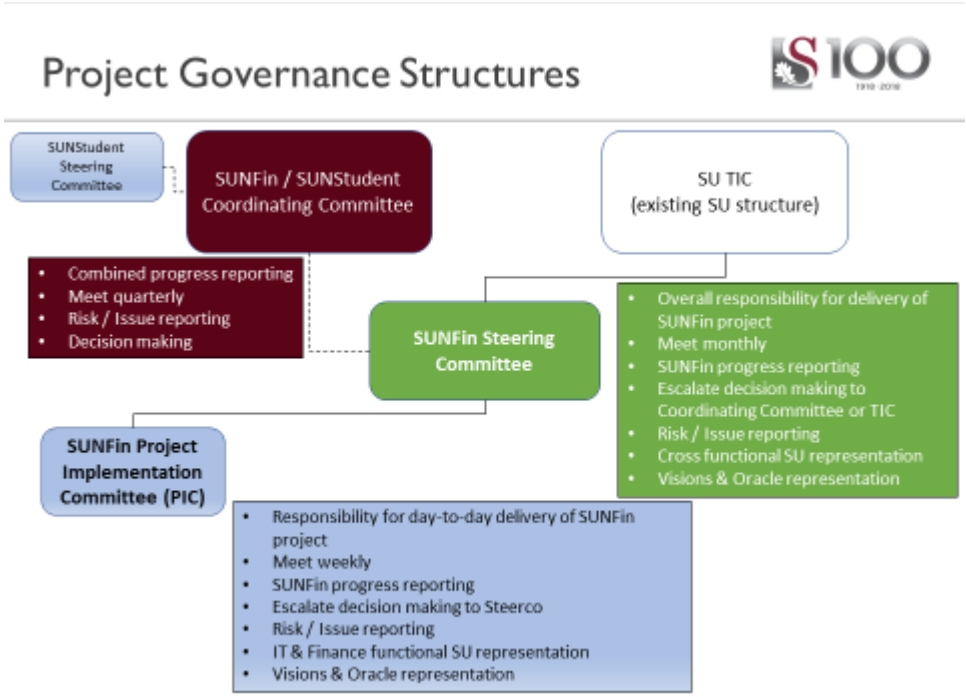


Figure 10: *The SUNFin* ***Project Governance Structures****:*

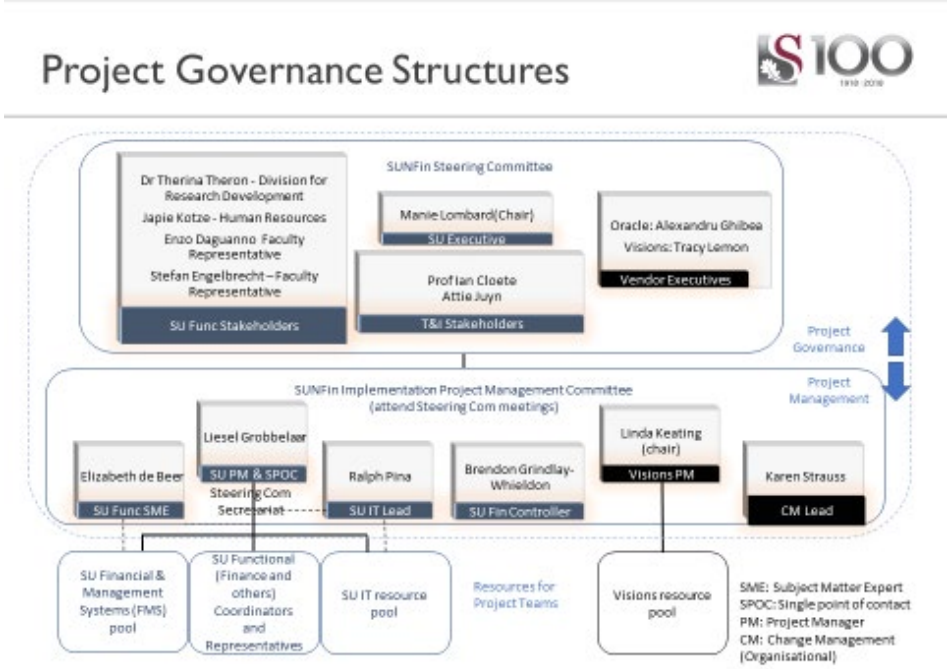


Figure 11 *The SUNFin* ***Steering Committee****:*

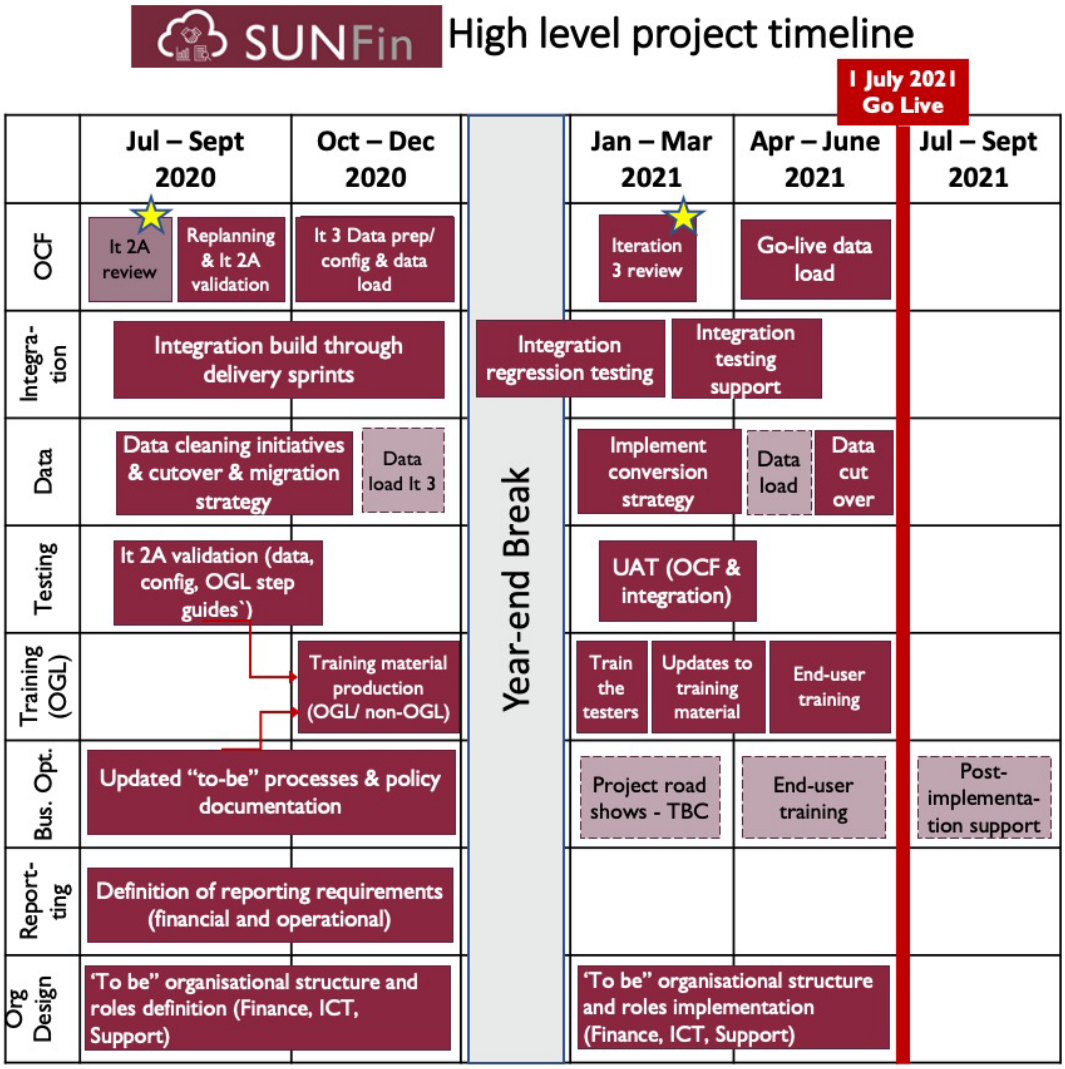


Figure 12: *The* ***project timeline*** *for SUNFin:*

Progress to the SUNFin project to date:

The SUNFin project started on 9 April 2019 with Cloud Process Alignment workshops for ten weeks where the team gained a better understanding of the solution and the quantum of change from current SU processes, policies and possibly structures.

Iteration 1 was concluded before the end of 2019 and preparation for Iteration 2 was scheduled thereafter. Preparation for Iteration 2 was scheduled for 30 days after the Iteration 1-review has been completed. Iteration 2 build was scheduled to start on 4 December and last four weeks. Review of Iteration 2 was planned to start during the latter part of January 2020.

The integration build and test phase was planned to start after Iteration 1 when an Oracle environment will be available for the team to start working in. A full data load of the financial data on Adabas Natural could not be achieved for Iteration 1 due to several problems with the current data formats.

High risks were also raised about the 53 integration points (with other IT systems used in the University), capacity to address the required integrations and lack of a full integration plan ensuring timeous delivery of the integrations necessary to ensure go-live in January 2021.

A variance request was therefor raised for additional capacity (1 scrum master, three senior and one junior business analysts and agile training) and additional funding of R6 million, that was approved from the balance funds of the COO , to ensure the risks raised were sufficiently mitigated.

Numerous unforeseen data related issues were experienced in April to July 2020 with the full data upload which significantly delayed the second review of the Oracle Cloud Financials (OCF) system populated with SU data (Iteration 2A), initially planned for April 2020.

SUNFin's Steerco proposed to the Rectorate on 18 June 2020 for the extension of the implementation date from 4 January 2021 to 1 July 2021. The following reasons were given:

- Delays due to data issues;
- The time and effort it took to understand the impact of OCF on the current SU legacy systems' integration landscape; and
- The key project team's resources that are under severe pressure due to the unique set of circumstances that COVID-19 has created since March 2020.

The Rectorate approved the proposal.

The extension of the project's go-live date has provided the project team with some time to 'slow down, in order to focus and speed up'. The approach for the Iteration 2A Review has been revised and kicked off on Monday, 6 July. One of the key objectives of the Iteration 2A Review was to enable the transfer of knowledge regarding the Oracle Cloud Financials (OCF) system from the implementation partner, Visions Consulting, to the identified SU Finance subject matter experts. The project team continues to maintain the momentum of the ICT Integration Delivery Sprint team working on the integration landscape, the work being done to populate the training tool, refining the testing approach and plan and focusing on the development of the data migration strategy given the lessons learnt.

Following the completion of the Iteration 2A Review, the project team had develop a robust, realistically adjusted project plan to ensure a successful go live on 1 July 2021. A key objective during the re-planning of the SUNFin project will be to minimise any impact on the SUNStudent project. Integrated planning between these two large implementation projects remains crucial. This revised plan, including the revised budget, was presented to the Steerco on 2 September and thereafter to the Rectorate for approval.

SUNFin project roadshows via online virtual sessions, will be scheduled with the operational and academic finance system users within faculties and divisions following the completion of Iteration 2A Review. These sessions will highlight features of the new

SUNFin solution and any key changes to financial processes and/or policies to be implemented.

To summarise, the project has achieved the following successes to date:

- Completion of the Cloud Process Alignment (CPA) workshops in June 2019;
- Mobilisation of nine separate delivery workstreams and leads for each stream;
- Definition of a new chart of accounts (COA) and entity structure;
- Development of a natural account hierarchy for reporting purposes ;
- Completion of the Iteration 1 review workshops in November 2019 where Visions Consulting presented the OCF system populated with SU data and initial configuration choices;
- Mobilisation of an integration delivery workstream consisting of ICT developers, business analysts and Finance representatives working together to define and develop the integration requirements between OCF and SU's peripheral legacy systems;
- Procurement of an online training tool to support and streamline the training effort – Oracle Guided Learning (OGL) training tool;
- Establishment of an ICT architecture practice/design workstream;
- Adoption of an agile delivery methodology within both the ICT integration delivery and architecture practice/ design workstreams; and
- Regular communication and stakeholder engagement initiatives with key groups and individuals to maintain levels of commitment and buy-in to the project.

The project team has also had to deal with the following challenges:

- Iteration 1 review highlighted that the initial design of the Chart of Accounts (COA) and entity structure had to be reworked. It also did not include a full load of SU's data as planned.
- Significant delay in the preparation for Iteration 2A – a fully configured OCF system with workflow and populated with SU data. This was largely due to numerous data quality and data interpretation issues.
- The impact of COVID-19 on the project team, including working remotely, additional ICBC responsibilities, and family responsibilities put an enormous strain on team members and continues to do so.
- The delay in Iteration 2A impacted on the integration delivery workstream to continue their work with a fully configured version of OCF.
- The delay in Iteration 2A also impacted on the population of the Oracle Guided Learning (OGL) training tool as a close to fully configured system is required to populate the user step guides in OGL.

The extension of the project go live date to 1 July 2021 has provided the project team with some time to revise the approach for the Iteration 2A Review with a key focus on the transfer of knowledge regarding the OCF system from Visions Consulting to the identified SU Finance subject matter experts (SME's). Iteration 2A walkthrough sessions and Iteration 2A reviews were completed on 12th August.

The outcomes from the Iteration 2A review highlighted the scope of the work that remains and provide a better understanding of the work required by the integration team. This enabled the project team to develop a robust, realistically adjusted project plan to ensure a successful go live on 1 July 2021. A key objective during the re-planning of the SUNFin project will be to minimise any impact on the SUNStudent project. Integrated planning between these two large implementation projects remains crucial. The revised project plan, including the project budget, was submitted to the SUNFin Steerco on 2 September 2020 for recommendation for approval to the Rectorate.

3.2.3 Involvement in SUNStudent implementation process

Werner Abrahams, Deputy Director: Student Fees and Debtors has been closely involved in the blueprint sessions of SUNStudent relating to student fees since 2019.

3.2.4 Alignment of structure with best practice processes and workflows

Iteration 2A of the implementation project of SUNFin, which was completed by 12 August, will provide a first set of workflows for Oracle Cloud Financials (OCF) at SU. This will be used to evaluate the current institutional and staff structure for efficiency and effectiveness. Benchmarking with comparable international institutions that implemented OCF has also started. By aligning our business processes to the best practices offered by the system, we will have to evaluate the job profiles of all staff as well as what their roles will be in future.

3.2.5 Further progress with budget renewal

Further refining of the integrated budget model in terms of all five money streams of SU according to the approved SU Budget Model, will continue and the focus in the short-term will be placed on the following matters:

1) Development of a framework for student fees in light of the possible fee regulation which will be effective from 2022 according to the latest feedback from the DHET, including the setting of 3-year frameworks;
2) Development of a budget model for Type 3 centres (with the focus of the School for Data Science and Computational Thingking); and
3) Development of a budget model for Hybrid Learning.

3.2.6 Roll-out and implementation of the anti-corruption & anti-bribery policy

The policy has been approved by the Audit and Risk Committee on 3 June 2019 and communicated to all the stakeholders. The Finance Division, with the assistance of Legal Services Division, is responsible for the continuous monitoring of the policy and the revision thereof every two years.

3.2.7 Further refining integrated financial reporting, including reporting to external and internal stakeholders

This also includes providing additional financial management information to management, faculties and Professional and Administrative Support Services (PASS) environments for effective financial planning and management decisions. This process is to be followed in close collaboration with the Division for Information Governance.

The dashboard with financial indicators was recently finalised by Information Governance after further development thereof together with Finance.

The 2019 consolidated financial statements were finalised and approved by the Council on 22 June 2020 and submitted to DHET on 1 July 2020, well ahead of the extended deadline of 31 August 2020 due to the COVID-19 pandemic. This was also the first year where our newly appointed external auditors, Ernst & Young Inc., were responsible for the external audit, which presented challenges with the lockdown during the finalisation of the external audit and financial statements.

.2.8 Effectively recovering outstanding student fees and loans and complying with the requirements of the National Credit Act 34 of 2005

This includes close collaboration with the Bursaries and Loans Division, particularly managing NSFAS and the additional DHET funding for bursaries.

Current recoveries of outstanding student fees and loans are remarkably good given the lockdown, especially when compared with the experience shared by other universities.

3.2.9 Reporting against the approved Combined Assurance Plan in collaboration with Internal Audit, Risk Management and other role players

The SU Combined Assurance Plan is aligned with the SU Risk Register. The Financial Controller reports on a quarterly basis to the COO and at every meeting of the Audit and Risk Committee on the status and progress. In this way the Financial Controller ensures that audit findings are given the necessary attention and that implementation of the required mitigating steps will follow.

3.2.10 Investment management: Executing decisions of the Investment Committee on the restructuring of SU's long-term investment strategy and mandate

The restructuring of the US long-term investments and mandates with a focus on specialist international investments, has been completed through our appointed investment administrator, WillisTowersWatson.

3.2.11 Creating a cashless environment at SU

To create a cashless environment, SU successfully introduced students to the SnapScan App payment solutions for payments such as laundry, meals and printing at the end of 2019. The communication campaign led to a huge increase in SnapScan receipts from the beginning of 2020 as well as the use of the SU online payment platform.

3.2.12 The Finance website and communication

The Finance website was renewed at the end of 2018 and received positive feedback from the different stakeholders. A dedicated communication specialist, Petro Mostert, has been employed since September 2019 in the COO's office and is responsible for the maintenance of, *inter alia*, the Finance Division's website, the post-implementation change-management and communication regarding SUNFin and internal communication in the Finance Division.

3.3 Good governance

In addition to the Finance Division's many initiatives above, systemic sustainability is further supported by the continuous pursuit of improved good corporate governance. To this end, the University implements the recommendations of the King IV Code of Good Governance and adheres to the reporting standards required of all South African higher education institutions.

SU's roll-out of a sustainable sourcing model with respect to services such as security, catering and cleaning is a good example of the value added in terms of good governance in this RC.

3.3.1 Risk Management

In line with the refined concept of combined assurance in King IV, SU has adopted a fully articulated combined assurance model as a governance approach to risk management. The Risk Management Policy approved in November 2015 and the subsequent Risk Management Framework and Plan approved by Council's Audit and Risk Committee (ARC) on 17 October 2016 form the basis of SU's combined assurance plan. The combined assurance plan was developed in collaboration with internal auditors Deloitte and other role-players, and served before the ARC on 18 May 2017. The roles of the five lines of defence1 recommended by King IV have since been clearly identified and implemented.

Though the approach to risk management is embedded in all the RCs and faculties, the RC: Operations and Finance manages the overarching framework. Since 2017, SU's risk management processes have been revised and further refined with the assistance of Deloitte. The principles for setting risk appetite were discussed at the additional ARC meeting scheduled to focus primarily on risk management matters in November 2017.

While colleagues in the Finance Division, especially the financial controller, take the lead in terms of combined assurance, the Risk Management Framework is managed by the Director: Risk Management and Campus Security in the Facilities Management Division.

3.3.2 Financial risks

The Finance Division is committed to the overall anchoring of the SU's risk management policy and model in the division. Continued communication and awareness raising are dealt with in the various sections and the daily activities of the division include policy implementation and evaluation.

At the macro level and according to the core strategic theme of *A thriving Stellenbosch University*, the Finance Division plays an important support role in ensuring the overarching financial sustainability of the University as an institution. This includes proper financial planning and budget processes as well as sound corporate control to ensure unqualified audit reports.

The following financial risks have been registered on the SU Risk Register and are being managed by the Finance Division as at June 2020:

- **Future income not realising as result of COVID-19**

  Universities were informed on 7 April by DHET that block grants will not be affected for 2020. There is the risk of government re-directing state funds. DHET also indicated that the payment of earmarked grants are suspended at this time.

SU earmarked grants for 2020 are:

1) University Capacity Development - R 23,4m
2) Foundation Provisioning - R 6,6m; and
3) Clinical Training - R63,9m = total R 94,0m.

There will also be possible reductions in income from donations and new research contracts. Stellenbosch University has substantial cash and money market reserves to fund the contingencies flowing from the current COVID-19 pandemic after the decisions of Council on 6 April 2020 to prepare the University for this disruption and protect the institution against unforeseen institutional expenses relating to the management of the crisis. Although SU has substantial money market reserves, we experienced that the money market could not provide the required cashflow at the end of March 2020 due to the substantial and unforeseen withdrawals at the same time by many investors. To ameliorate the risk posed by one money market manager the Investment Committee of Council approved the allocation of half of the money market portfolio to a second, approved, money market manager.

Council authorised nearly R105 million to be held in reserve, which was secured as follows: At the recommendation of its Executive Committee, Council approved SU's 2019 financial results and decided to allocate the entire surplus of R45,24 million on the 2019 main budget to the University's contingency reserve.

Council also allocated an additional amount of R45 million on the 2020 budget resulting from a larger-than-expected state subsidy announced in December 2019 to the contingency reserve. Lastly, Council decided that the currently unallocated R14,5 million in the institutional block of the 2020 main budget should also be held in reserve for expenses relating to COVID-19.

In addition, Council noted that spending from main-budget balance funds in responsibility centres and faculties had been embargoed. Until further notice, expenditure for any new initiatives from balance funds will only be possible with the permission of the COO or the Chief Director: Finance.

- **Non-payment of student fees as a result of COVID-19**

  We are already experiencing a somewhat lower than normal payment of student fees as a result of COVID-19 although the payment deadlines are end of May for 75% and end Sept for remaining 25%.

- **Default on student loan repayments as a result of COVID-19**

  Defaults on student loan repayments due to COVID-19 are likely.

- **Regulation of student fees by the State**

The revision of the subsidy formula for universities has been put on hold, with the focus now on determining a mechanism for possible fee regulation in future. This is as a result of the announcement of fee-free Higher Education for students from families with a combined income below R350 000 per annum.

3.3.3 Safety and security

Safety and security on SU's five campuses is of the utmost importance and we follow the trends closely to mitigate the risks and ensure that we achieve the best outcomes. The following paragraphs provide an overview on security at our Stellenbosch and satellite campuses and outcomes of the past years' security risk assessments:

3.3.3.1 Security Trends

The medium-term crime trends still follow a downward slope since the middle of 2016. Both internal and external factors are contributing to this trend. The internal factors include annual re-assessment of high-risk areas and expanding or redeploying of services to address these risks. The contribution made by SU contracted security service provider in the form of state-of-the-art security technology aids also contributes to a decline in the crime rate.

The external factors contributing to the downwards trends include the curfews in response to the Covid-19 pandemic for the second quarter of 2020. The curfews and other Covid-19 pandemic regulations impacted positively on the crime statistics and trends during the second quarter of 2020. Figure 14 shows the long-term annual reported crime incidents on SU campuses, with figure 15 providing a quarterly breakdown. The dramatic and sustained decline in reported crime incidents is deeply encouraging.

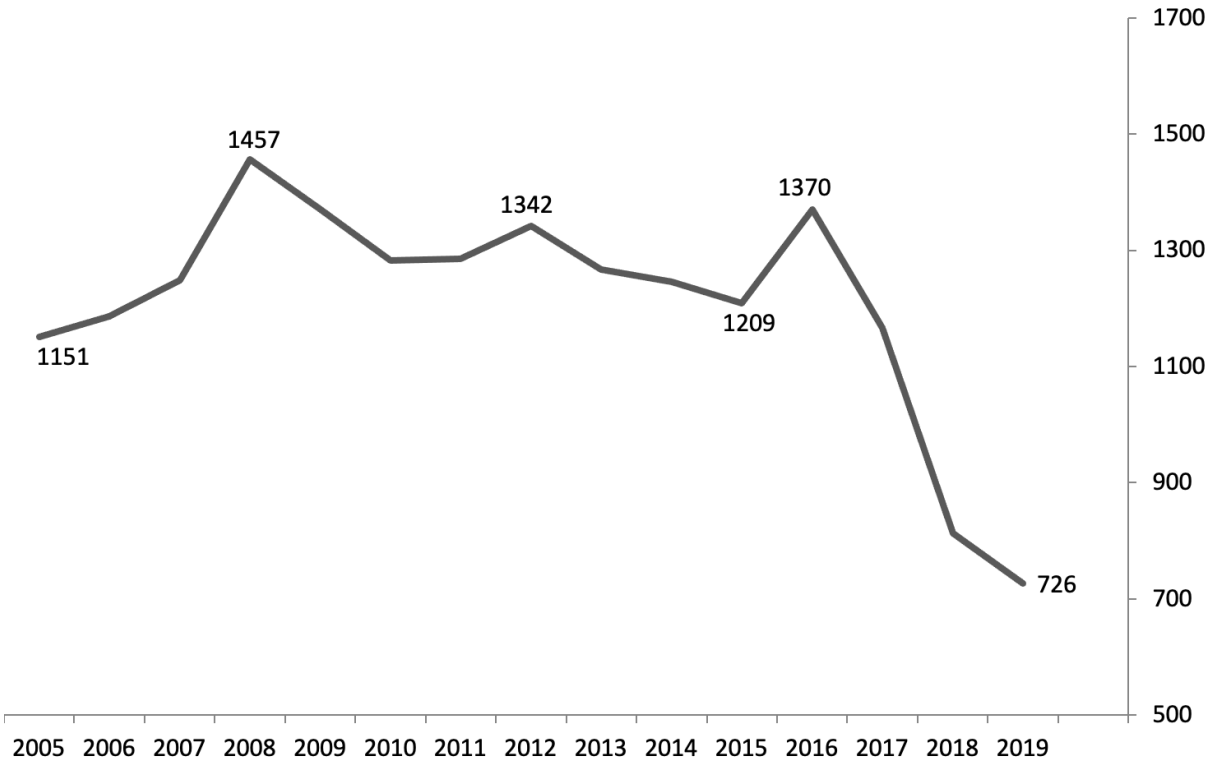


Figure 13: *Total annual reported crime-related incidents.*

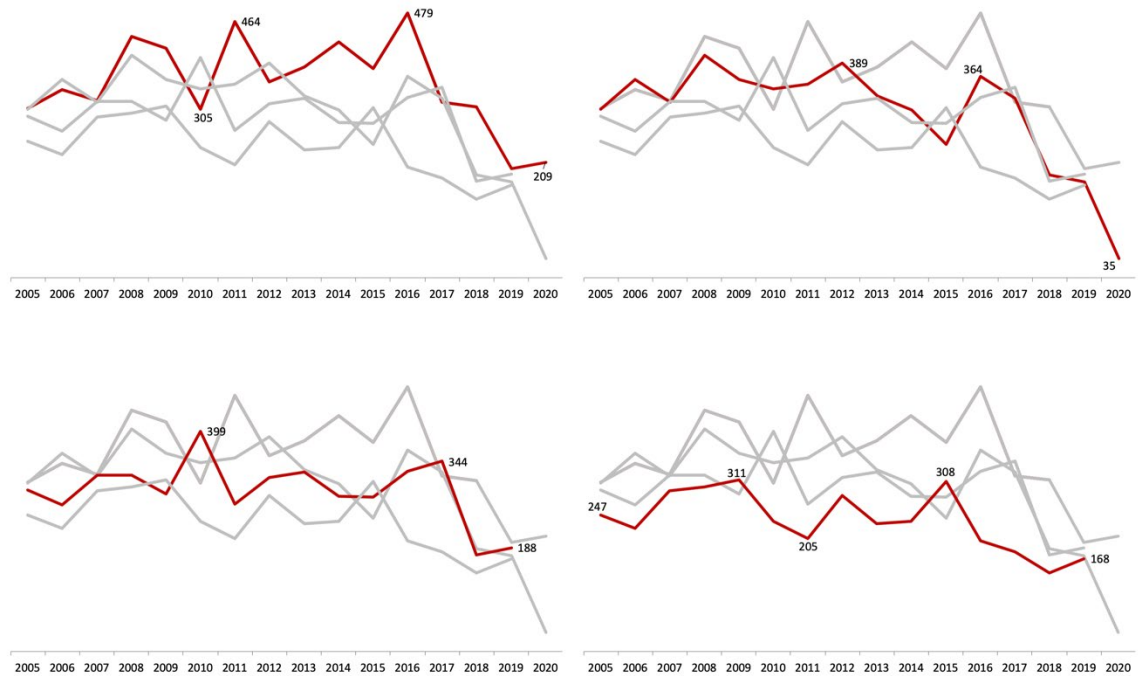


Figure 14: *Reported crime-related incidents by quarter.*

3.3.3.2 Utilisation of security technologies

Outputs from security technologies such as access control, CCTV and alarm systems are continuously reviewed and updated. Facilities Management appointed consultants to test and update all alarm systems, a positive step that had improved the quality and outputs of these systems campus-wide. This project enabled Campus Security to maintain and - in some cases - even improve on critical alarm response times.

The possibility of applying facial recognition security technology and vehicle licence plate recognition (LPR) in conjunction with the current CCTV system, is still being explored. Since Stellenbosch Municipality introduced a LPR system which monitors the entrances to the town, vehicle-related crimes in and around town decreased remarkably. We are currently assessing the possibility of applying similar technology on campus. Since 2019, the utilisation of a new Crime Incidents Information Management System (CiiMs) enabled Campus Security to make use of quantitative and qualitative data analysis to improve operational planning. The integration of CiiMs with existing software systems such as the Instacom communication and patrolling system and the SU alarm monitoring systems is currently in process. Further integration opportunities between the CCTV systems and ArcGIS is in the process of being explored.

3.3.3.3 Security at SU's satellite campuses

Tygerberg Campus:
While Tygerberg campus still reaps the benefit of an upgraded perimeter fence and a single vehicle-entry gate, the openness of the campus due to a large number of day visitors and contractors, requires continuous review and improvement of systems and procedures. During the start-up phase of the new Biomedical Research Facility (BMRF) project, access control was under pressure. It has since stabilised as the project commenced and we addressed the loopholes.

A further factor influencing the security at Tygerberg Campus is the security situation at the neighbouring hospital. Campus Security has strengthened the access control measures at the entrances to the hospital and is continuously coordinating security measures with hospital counterparts.

Bellville Park campus:
The completion of the fence around Bellville Park contributed considerably to decreasing the incidence of crime on the campus. The threat of homeless people invading the extensive uninhabited grounds surrounding the campus is prominent and requires continuous intervention. Campus Security is supported by SAPS and the City of Cape Town to address this ongoing threat.

Worcester campus:
Crime incidents at the Ukwanda campus in Worcester are minimal due to the perimeter fence, access control measures and security patrols. The primary threat for the staff and students of Worcester is the safety of students while doing fieldwork in insecure areas around Worcester. The faculty provides safe transport and coach students in best practices to stay safe. Besides, Campus Security provides support to these students and staff via a

very competent local security services provider in Worcester. Strong relations between the Campus management, contracted provider and local police, contributes to an effective safety network in Worcester.

3.3.3.4 Outcome of the 2019-2020 security risk assessment

Following the 2019 security risk assessment, the northern part of the Stellenbosch Campus was identified as the area most in need of security services refinement. The increasing activities at the Facilities Management building, IT building, the LaunchLab facilities, Decanting building, Food Sciences building, Goldfields residence and Lentelus sports fields pointed towards the need for additional security presence on the Northern Campus.

Additional foot patrols were posted permanently in that areas, while a quad motorcycle is used to patrol the perimeter of the Lentelus sports grounds. Additional guard stations with ablution facilities were erected at Food Sciences and are in the process of being constructed at Lentelus, to uphold the strong human dignity principles demonstrated by Campus Security and Facilities Management.

The visibility and mobility of security vehicle patrols were improved in 2020 via the procurement and branding of two new security patrol vehicles.

Figure 15: *The newly branded security patrol vehicles*

Also following the 2019 risk assessment, Campus Security acquired the services of five additional security officers, who were posted in areas where criminals were found to be most active. The Campus Security contract service provider made an additional mobile kiosk available to be deployed at security hotspots around campus. This kiosk is equipped with CCTV monitoring equipment to also serve as mobile security operations kiosk during security operations.

3.3.4 Good corporate governance

With our business continuity plan in place to maintain existing SU business, the University is still expanding the scope of its activities in the commercial sphere which requires its own unique corporate governance. The income generated from these additional commercial activities is known as SU's fifth income stream.

3.3.4.1 Innovus: SU's platform for the fifth income stream

Innovus serves as SU's platform for the fifth income stream generated through the commercialisation of the University's assets. The key rationale behind a comprehensive, optimal strategy for fifth-stream (technology transfer and commercialisation) income is the need for the University to reduce its reliance on the first (state subsidy) and second (student fees) income streams, which are no longer sustainable. The fifth stream is also required to supplement the third (research contracts) and fourth (philanthropic donations) streams. This is achieved through the several divisions of Innovus.

Lockdown risk

With the National State of Disaster extending well beyond 100 days the policy response to the pandemic has brought unprecedented economic disruption, which has also affected the SU group of companies and the associated internal risks for Innovus. Innovus is expecting to earn less income through dividends and licence revenue in 2020, which will place financial pressure on the division.

The various Innovus teams, except for some teams within SunCom, have seamlessly switched to working from home and have been highly productive working remotely. Many of the SunCom staff are in the process of returning to their offices. These include staff members in the Botanical Garden, residences, and the Neelsie Rental Office. The Technology Transfer, Short Courses, Trademarks and Copyright, Central Events and Conference Office, Facility Rental Office and administrative staff will be continuing to work remotely, indefinitely.

a. Investments in SU projects and spin-outs

So far this year Innovus has set up four new spin-out companies and is working on two more, making 2020 a record year for new spin-outs.

Since March 2020, Innovus raised a total investment of R11 932 026 for SU projects and start-ups. Four projects received a total amount of R2 449 476 from the Technology Innovation Agency (TIA) Seed Fund. The University Technology Fund (UTF) Seed Fund stage invested R3 000 000 in two companies, with due diligence having been conducted on a third company. Four SU projects have also successfully obtained UTF Pre-Seed funding from Innovus - the total value of this investment is R1 482 550. Another investor invested an amount of R5 000 000 in one of Innovus' recently established start-ups.

GeoSUN and CubeSpace, both well-established companies in the SU Group, are currently engaging with the UTF for possible investments.

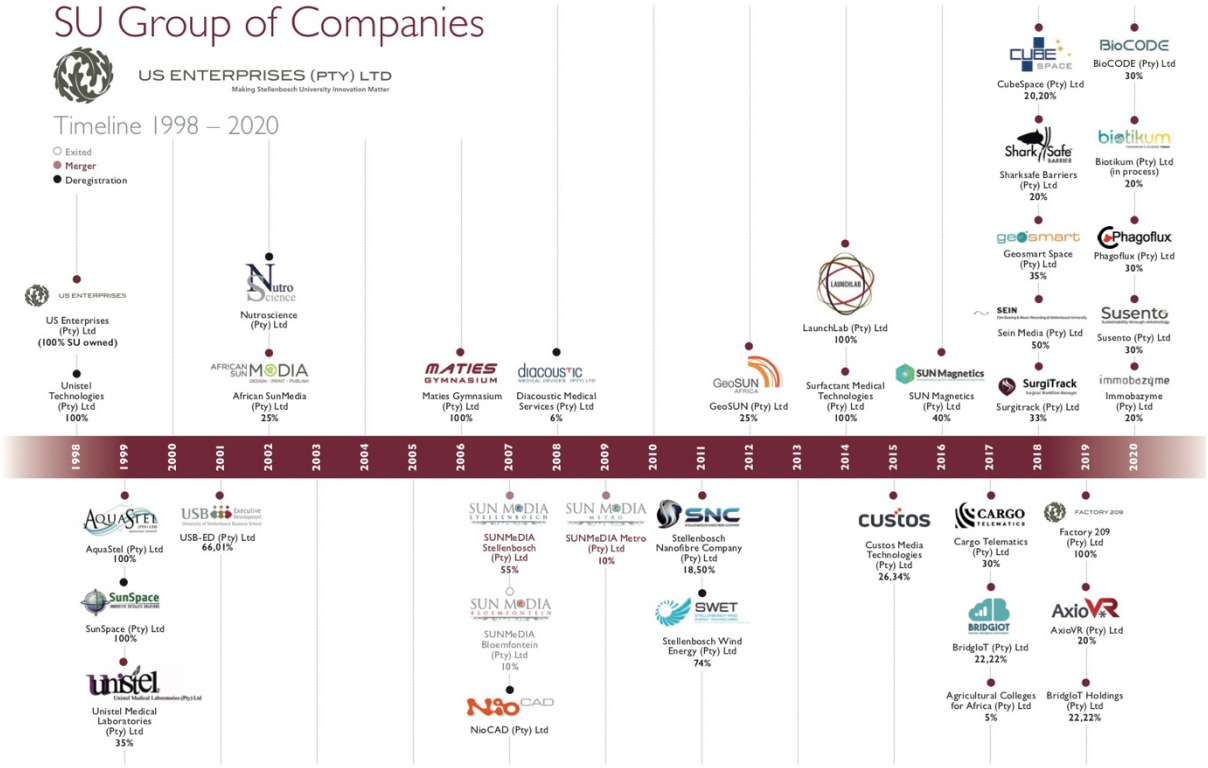


Figure 16: *Timeline SU Group of Companies 1998-2020*

b. Technology Transfer

The Technology Transfer Team have outperformed themselves during the Lockdown period, as is evident in the comprehensive report on their activities submitted to the Innovus board of Directors.

During the lockdown period, Innovus has negotiated and concluded six technology licenses and one Instant Access licence with industry partners.

Innovus has also raised further funding from its industry partners (Capitec and Entersekt) for the SU Hackathon, which was a virtual online event that took place over the weekend of 31 July to 2 August 2020.

c. Innovus: Group of Companies

Innovus has established four new companies thus far during 2020, namely BIOCODE, Phagoflux, Susento and Biotikum. All four of these companies have received funding from either one of the instruments in the University Technology Fund (UTF) or other investors/funders. Currently, the Innovus team is working on a fifth company, Immobazyme and a merger between Bridgiot and one of their clients.

A sixth spin-out in conjunction with an industry partner, to commercialise the Synsurf technology is also receiving much attention. Innovus is currently seeking investment for this project. Synsurf is a synthetic lung surfactant that compared superior to derived animal products in animal tests. Because it can be used to treat severe lung infections, including COVID-19, it can be fast-tracked towards in-human testing. However, it is believed that the largest market for Synsurf is as a drug carrier.

Some of the companies in the Innovus Group are experiencing tremendous challenges due to the effects of the global COVID-19 pandemic.

The financial and other effects of the pandemic on the Innovus Group of companies are becoming more visible.

Most of the other companies in the SU group are early-stage start-ups (for example, BIOCODE, AxioVR, Sein, GeoSMART) with low monthly expenses, making them remarkably resilient to the crisis. Still, it could potentially take them much longer now to reach profitability. However, some of our companies are expecting the *best year to date*.

Risk Management

The COVID-19 pandemic poses a severe risk to some of the companies in the Group. It is being managed on a case-by-case basis as each company has its own unique set of circumstances. The underlying principle is that Innovus is striving to ensure that the SU group of companies will survive this crisis.

As reported previously, one of SU's most pertinent risks associated with setting up start-up companies remains potential reputational damage. Innovus manages this risk both contractually and more actively on a case-by-case basis, depending on the nature of the issue. In the case of Custos, there is potential reputational risk involved for Innovus being the largest shareholder in Custos, and against the backdrop of the pending legal action and the publicity that surrounds it. However, the other shareholders share Innovus' view unanimously and work with Innovus to ameliorate the risk.

Another significant risk for Innovus is its inability to attract suitable funding for its start-up companies and also for the early-stage projects in the SU intellectual property pipeline. To mitigate this risk, Innovus has been successfully pursuing efforts to raise an overarching fund to invest in university technologies in South Africa. As indicated earlier in this report, the University Technology Fund (UTF) has been formally established and is actively investing.

Innovus also secured funding for a company that the UTF was not interested in.

d. Stellenbosch University LaunchLab

The SU LaunchLab (SU LL) has gone through an incredible amount of change during the first half of 2020. These changes were initiated by the arrival of the new CEO on 1 February

2020. While SU LL has achieved great success in its first five years being named Africa's #1 University-backed Incubator, the changes were necessary as the company had not yet reached profitability and had less than ten months of cash runway due to a high accounts receivable balance.

The Board and Team aligned on the following five strategic goals for 2020:

1. Establish long-term financial sustainability;
2. Build the world's leading incubation platform;
3. Establish a trusted and inspiring brand;
4. Invest in team and platform development; and
5. Embrace continuous innovation.

These goals focus on product, platform and partners. These are the critical elements of the marketplace model for the incubator. They will also allow for scale as the company has bold ambitions to scale its knowledge and operations across the continent and Global South in coming years. In many ways, they are entering the era of SU LL 2.0, which they have titled 'Ready for Take-Off'.

The team then broke down its annual goals into quarterly workstreams, which read as follows:

> 1Q - transition team and platform from LL 1.0;
> 2Q - rebuild our platform and incubation programmes; begin establishing mission-aligned partner relationships;
> 3Q - execute the rebuild of our product, platform & partners; and
> 4Q - begin administering our new business model and programmes with a focus on Stellenbosch University.

By utilising an Objective, Key Result (OKR) framework, the team has defined the necessary inputs to achieve these outputs. They have already seen excellent results, as demonstrated by the following metrics:

Cash Runway - 400+% increase since 1 February 2020 with over R8M currently in the bank. This has extended the company's runway by 100% even with higher fixed costs due to growing the team. It was made possible by an increase in revenue as well as a 90%+ decrease in accounts receivable.

Revenue - SU LL realised R4 million of total revenue in 2019. The team has already generated R5.8 million as of 1 May 2020. It is a 45% increase through the first five months of 2020 versus the full year 2019. The goal is to achieve more than R11 million in 2020, which would mark a 275% YoY increase.

Profitability - ensuring long-term financial sustainability means SU LL must reach operating profitability. Through 1 May 2020, the team achieved R2.5 million of operating profit versus -R900k for fiscal year 2019. Their goal is to remain above R1 million of

operating profit for 2020 as they will make investments in team, platform and rebrand in the second half of 2020.

Overall, SU LL has built a much stronger foundation across product, platform and partners in the first half of 2020. Starting in September 2020, they will begin focusing more on infusing SU with entrepreneurship through a series of awareness campaigns as well as experiential learning via bootcamps and design thinking workshops. This strategy is being executed very closely with Innovus.

By achieving their five strategic goals, the SU LL will build the holistic foundation necessary for the lab to scale its model, thereby raising the value of entrepreneurship, technology transfer companies and the Pty in years to come.

e. SUNCOM projects

A comprehensive report on SunCom activities is included in the full Board Report to the Innovus Directors. The global COVID-19 pandemic has affected several of the SunCom environments as discussed below:

I. Matie Shop

The Lockdown period was used productively to prepare an online shop via the Takealot platform to sell and distribute SU branded merchandise locally. Apart from individually selected clothing items, staff also prepared *combo deals* selling, for example, pens and mugs with hoodies, to include more product ranges in a cost-effective manner. SU merchandise was launched in mid-July 2020 on the Takealot platform to make the products more accessible for alumni nationwide.

All the first-year clothing was delivered before the lockdown period, and much of it now remains in stock. Usually, graduation in April would have presented a valuable opportunity to show-case the Matie Shop products and be a significant marketing opportunity. The effects of COVID-19 and the ensuing lockdown period, however, eliminated this important opportunity.

II. SU new corporate branding

The Matie Shop has been working on new and fresh concepts and designs for the new SU clothing range, aligned with the launch of the new SU brand. This has involved interaction with existing suppliers and the production of samples in order to assess quality and evaluate the designs and concepts. The Matie Shop has initiated a collaboration with Boomtown consultants to create new products and garments that will align with the new SU trademarks. The continuity of SU's historical roots has perpetuated the maroon colour palate in all garments and merchandise.

III. New fashion brand

The Matie Shop has been working on the creation of a new fashion brand to complement the corporate brands and allow the Shop to *play* with trendy designs.

After extensive studies, we established that the use of the year that the institution was founded is the most-used auxiliary brand at leading international universities.

The planned launch of an alternative ***est. 1918*** brand to offer an alternative parallel with the Maties brand has unfortunately been put on hold by the University's Marketing and Communication Division, whilst the refreshed SU brand is finalised (and which has been significantly delayed). Figures 18 and 19 below are good examples of the corporate brand and fashion brand usage by Melbourne University.

Figure 17: *The brand that was decided on will be the* ***est. 1918*** *brand.*

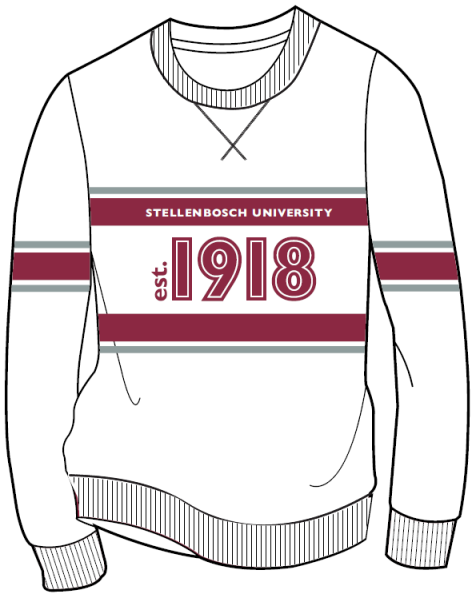


Figure 18: *A concept design where the brand is reflected on*

IV. New clothing collar tag

The Matie Shop has designed a new clothing label for all SU branded apparel to differentiate its product from the non-original products. See Figure 20 below:

Figure 19: *New clothing tag*

V. Mobile shop

The closure of the Dorp Street outlet led to the acquisition of a trailer to establish a mobile shop which will extend the offering and exposure of the shop's merchandise. Delivery of the mobile shop took place in June 2020 and trade will commence as soon as the present lockdown circumstances allow. The branding will, in the interim, be limited until the new SU brand has been launched. See an example of shop below:

Figure 20: Example of mobile shop

VI. Campus Accommodation

The SunCom Division is tasked with the management of student accommodation facilities and services with a total of nearly sixty buildings under its management.

This is done in close collaboration with the Divisions of Student Affairs and Student Communities to ensure that all the facilities add to the desired learning culture.

The Division also manages nearly 8 000 beds at 41 student houses, 23 traditional residences and 9 apartment-type residences.

Some projects currently in progress within the Housing unit:

- Ongoing water-saving initiatives have resulted in considerable direct financial savings thus far;
- The complete upgrading of Helshoogte Residence is still in process and should be completed by mid-2021. It is estimated that the project will cost around R80 million upon completion;
- The rebuilding of Huis Ten Bosch Residence after the 2019 fire is still in progress.

The Executive Committee of the Council approved a "no stay-no pay" approach to the accommodation fees for 2020, which will result in a significant loss in income for the housing budget totalling just over 50% of the annual income budgeted for accommodation for 2020.

The associated budget cuts will inevitably result in delays in various capital upgrade projects.

VII. Student Centers

During April 2020, a relief package for Commercial Tenants was approved. The premises for the proposal were based on a no-cost and limited risk to the Letting Office and only to sacrifice potential profits.

Since that decision was taken in mid-April 2020, further Lockdown Regulations were implemented by Government with further disruptive impact on business prospects. Tenants (with a few exceptions) are largely dependent on students for trade, and the effects of the lockdown were highly prohibitive to their trading environment.

It became apparent that tenants would need further assistance, as the majority would not be able to remain open under the prevailing economic and business conditions. The Neelsie Management is hugely concerned that a large number of their clients will fail to continue with their businesses once lockdown measures have been lifted to a level where a sufficient number of students may return to campus.

Risk Mitigation

In consultation with various stakeholders, a revised relief package was drafted. The revised proposal was aimed at the survival and retention of the commercial tenants, resulting inevitably that the Letting Office will incur an operational loss in 2020. This internal loss will be covered by cash reserves.

The only way to ensure not only the continued existence of the trading entities but also their ability to retain their staff, stock and working capital), was to apply a suitable relief offering.

VIII. Conferences and Events

A central events and conferencing office (CECO) at SU has been established and will use Factory (209) Pty Ltd, an SU spin-out company, as a legal vehicle for these services.

The lockdown period was utilised productively to draft and initiate the process of getting a formal Facilities Rental Policy approved for SU.

As both the new conference and events businesses at SU were officially launched on 1 January 2020, this posed a significant financial risk for the initiative as revenue decreased to zero (the initiative is self-funded). Luckily these industries have shown themselves to be substantially robust in recovering (for example post the recent Western Cape drought and Ebola outbreaks).

Risk mitigation

- Constant communication with customers to try and re-book their events for 2020 or 2021, as opposed to cancelling them. SunCom deems this communication extremely important to ensure SU is top of mind as a venue destination when this pandemic subsides;
- Constant communication with vendors to minimise any costs related to events that have been cancelled and keep them abreast of re-bookings;
- Constant communication with industry bodies (such as South African Tourism, Wesgro and Events Safety Alliance) to understand macro trends and best practices;
- Ensure SunCom has robust Force Majeure clauses in contracts for these 'Acts of God' in the future (and have reviewed all Force Majeure clauses in existing contracts);
- SunCom re-balanced their cash flow projections for 2020 and obtained Factory 209 Board of Directors' approval for a revised 2020 budget. Spending has been limited as much as possible, for example, freezing new hires, not using any planned consultants for 2020 and decreasing overheads to an absolute minimum; and
- Shifted the team's focus to build processes and systems in lieu of current events and the decrease in customer enquiries.

IX. SU Botanical Garden

SU remains proud of its historical Botanical Garden (BG) that is both a vibrant local facility and active research site. Operationally, recent activities have been dominated by the adjustment to the Covid-19 lockdown restrictions, but significant progress has been made on collection curation, upgrade planning and further fundraising.

Highlights

The BG reached the initial approval stage for an R750,000 funding application from the World Wildlife Fund (WWF) Table Mountain Fund for the creation of new display beds that explicitly showcase and interpret the extremely threatened lowland habitats of the Cape. See Figures 22 and 23 below.

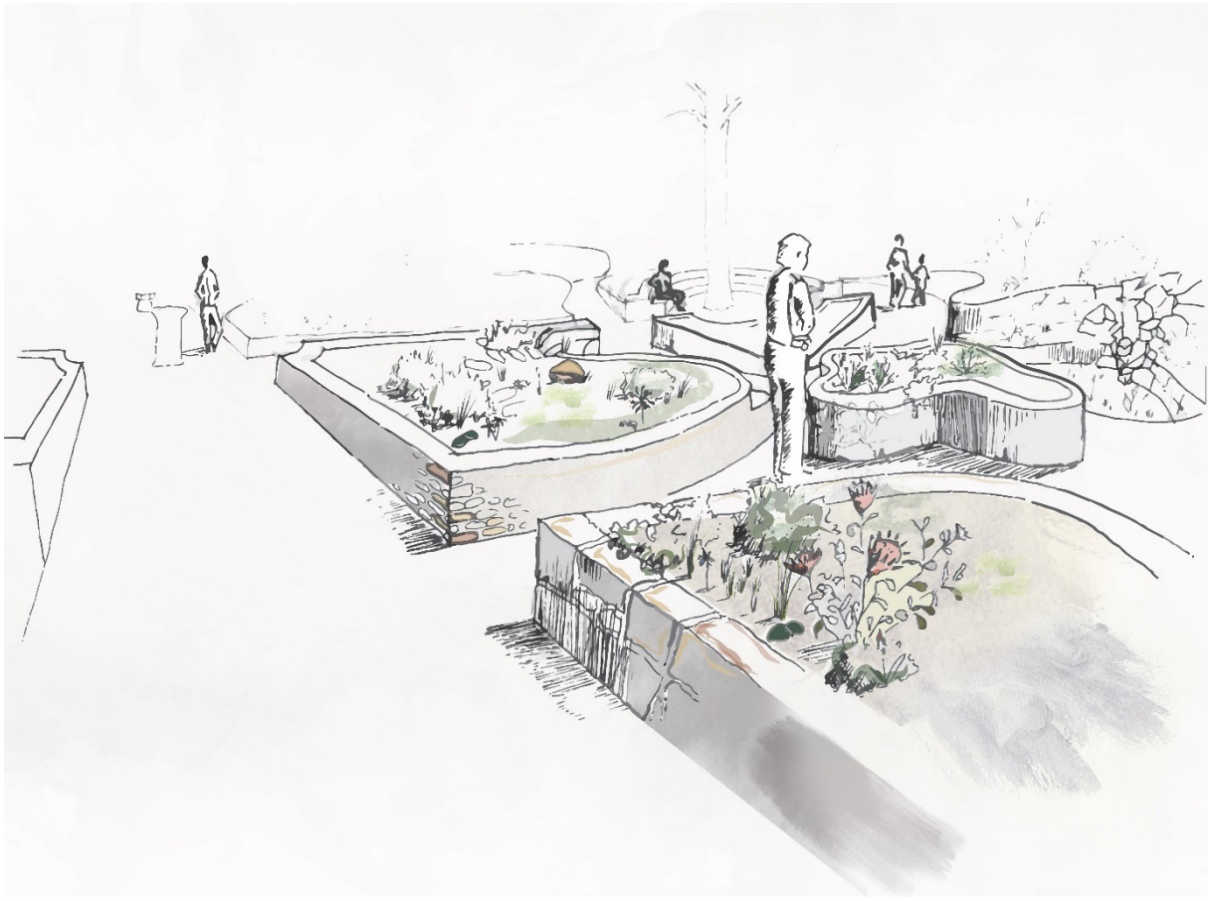


***Figure 21**: Artist impression of bed layout concept*

The BG internship programme is yielding great benefit. The South African Agency for Science & Technology Advancement (SAASTA) interns have been crucial to the progress during this period and have, in turn, received real valuable experiential training.

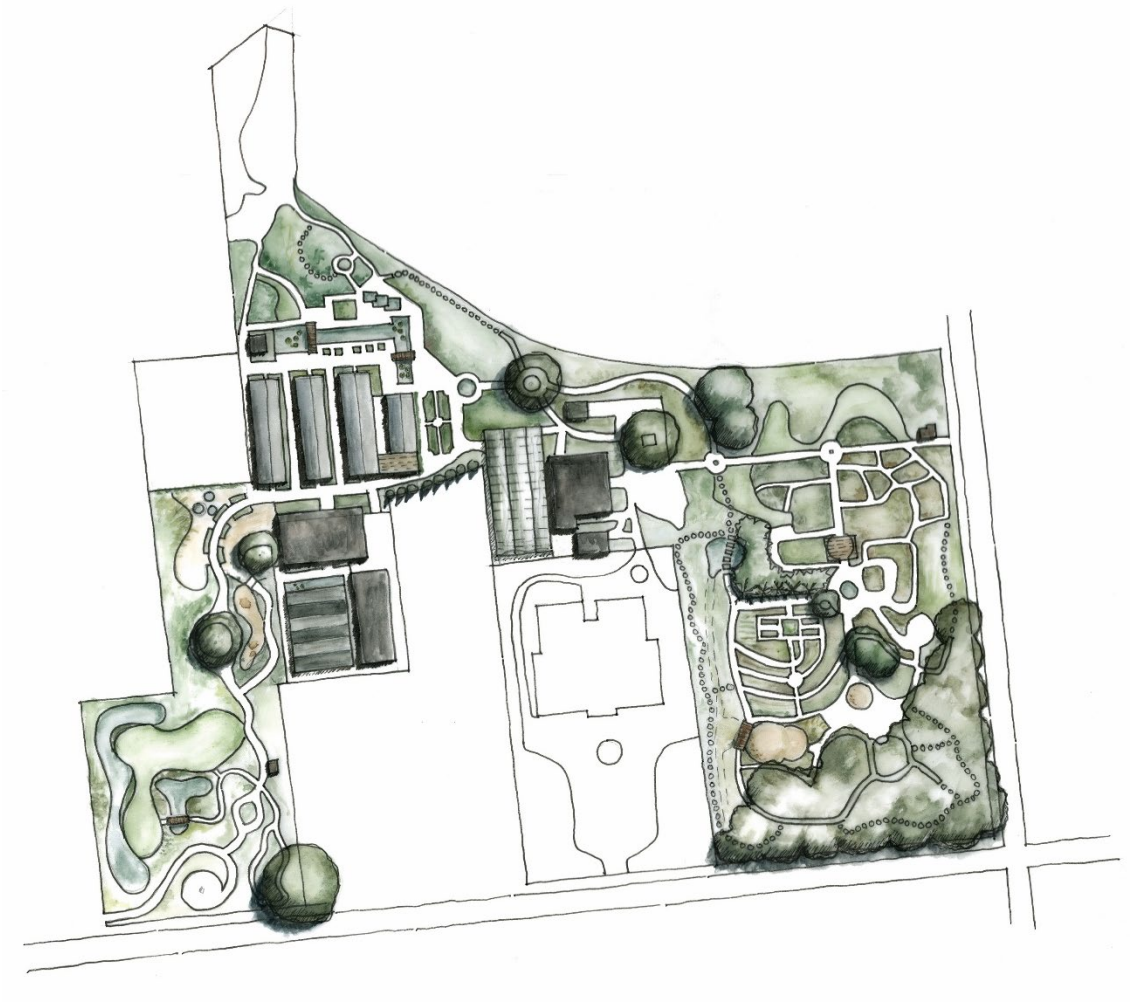


Figure 22: *Artist impression of layout concept*

The garden adopted a risk-averse approach in the week before lockdown and was able to rehouse the bonsai collection with a trusted private service provider and Babylonstoren so that they would receive ongoing care even if no staff access were possible. This was fortunate as it would have been nearly impossible to maintain that collection and continue the full range of garden tasks with the skeleton teams of 3-4 people at any time.

Some lows

COVID-19 lockdown has and will continue to have a significant negative impact on operational funds, with an income loss of approximately R100 000 per month, and unavoidable ongoing direct costs. The BG had to remain closed to the public during level 3 lockdown. Fortunately, the conservative financial approach of recent years has yielded reserves almost sufficient to cover that period if extreme cost-cutting measures are still applied. The result is the elimination of the BG's ability to co-fund and contribute to some of the planned and necessary upgrades.

Initiatives during 2020

The BG is primarily planning and implementing the upgrades which will be funded by the SU Strategic Fund and an allocation to the restaurant upgrade by SUNCOM over the next two years.

Staff will continue stabilising valuable collections, cataloguing and removing hoarded non-strategic and duplicate plants. New database parameters will be implemented to improve ease and management of collections such as clear differentiation between summer and winter growing species. The implementation includes information for plant types and accession items in the database.

Planning for the remainder of 2020

- Implement upgrades and conservation work;
- Install ring main and water reticulation network;
- Target key conservation collections, fundraising focus to be de-emphasised, and shifted to providing dedicated communications and/or content development resources; and
- Focus on building collaborations and relationships with SU environments in line with becoming a useful academic asset and teaching and research resource, rather than a public park.

Challenges

- Lockdown delays and changed working approaches in the future will impact upgrade progress;
- Planting improvements and upgrades take a long time to choose from planning, through procurement to growing up stock, so changes are slow to become visible. Despite substantial investment, achieving improvement in overall appearance and condition will be challenging with available resources;
- A far more robust focus on conservation and academic support does come at a trade-off in resources allocated to maintaining a perfectly manicured park-like garden. This may attract the perception of a decline by regular users and visitors in the short-medium term;
- Substantial irrigation upgrades will mean lifting and replacing paving and beds and is a significant exercise that will cause disruption and impact on visitor perception; and
- Offices and buildings remain in disrepair and in need of an upgrade but waiting for the finalisation of the business plan for the short term.

X. Copyright, Trademarks and Short Courses

A comprehensive report on our Copyright, Trademarks and Short Courses environment was included in the full Board Report to the Innovus directors. The following risks are highlighted in terms of the COVID-19 pandemic:

Copyright

Universities have been deeply affected by COVID-19 and the different lockdown periods had a significant impact on lecturing and the distribution of course content to students. Locally, DALRO (Dramatic; Artistic and Literary Rights Organisation) and PASA (the Publishers' Association of South Africa) responded accordingly and offered assistance to universities during the COVID-19 lockdown period with regards to making course content and prescribed text available online to students. Fortunately in January 2019, SU negotiated an addendum to its existing blanket licence agreement with DALRO. The addendum specifically makes provision for electronic material residing on SU's password-protected and access-restricted section of its secure internal network and electronic course management system (SUNLearn and SUNOnline). Only students who are enrolled on these systems for a particular course or short course and/or designated administrative staff have access to these platforms.

Short Courses

The student management system indicates 7 208 short course participant registrations for 2020 (YTD) including the 3 296 participants for USB-ED. This is a decrease of more than 3 000 short course participants for the same timeframe last year. This is potentially due to cancellations by participants due to the effects of the COVID-19 pandemic, citing financial and/or access and data issues where short courses have been moved into an online environment. Of the 3 912 participants registered against SU's 2020 presentations, 2 132 are registered against the 173 blended or fully online short courses on the SUNOnline platform. Of USB-ED's 3 296 short course participants, 1 580 are registered against their 17 blended or fully online short courses.

The short courses team are working together with the Deputy Registrar: Centre for Student Administration and ICT to find solutions that would be workable and suitable for the electronic certification of both formal degree programmes and short courses. Obviously, the needs and requirements for these two environments are vastly different, and two international companies (Paradigm in the United States and Advanced Secure Technologies in the United Kingdom) have submitted proposals that are currently being reviewed before a final proposal will be submitted to ICT.

4. THE OPERATIONAL NETWORK FOR A LARGE PUBLIC UNIVERSITY

The RC: Operations and Finance is responsible for crucial networks that enable the University to operate. These networks span all SU campuses and range from human (sport), to technological (IT), to physical (facilities).

4.1 Maties Sport

The Maties Sport business model continuously strives to inform its operations, and we continue to learn and align ourselves to an increasingly-digitised world. A notable investment 2019 is e-sport in which Maties Sport became national champions for the inaugural University Sport South Africa e-sport tournament.

Our sport codes continue to be our main focus and ambassadors with opportunities provided for recreation, competitive and high-performance participation, coupled with research, training and development and supporting social impact activities. This collective offering supports SU's vision with Maties Sport as a leading higher education sports department.

The feedback of an esteemed panel supports this acknowledgement, consisting of Professor Kenneth Shropshire, CEO of the Arizona State University Global Sport Institute, Dr Phathokuhle Zondi, CEO of Sport Science Institute of South Africa and Kobus van der Walt, renowned and retired Director of Sport at University of Pretoria/TUKS, who conducted our 5-year external review in 2019, providing valuable feedback on areas of improvement, and also confirming that we continue to strive for excellence, inclusivity and innovation.

4.1.1 Human Resources

Maties Sport's commitment to transformation in sport and employment equity is evident from our staff profile and is shown in figure 24.

The Maties Sport's commitment to training and development remains a priority to facilitate enhancement of our staff and coaches' knowledge and to learn new skills which was prioritised even during lockdown (Figure 25). We covered a broad range of topics across the ecosystem of the business of sport and are exciting about how this will support our future Staff Development Strategy.

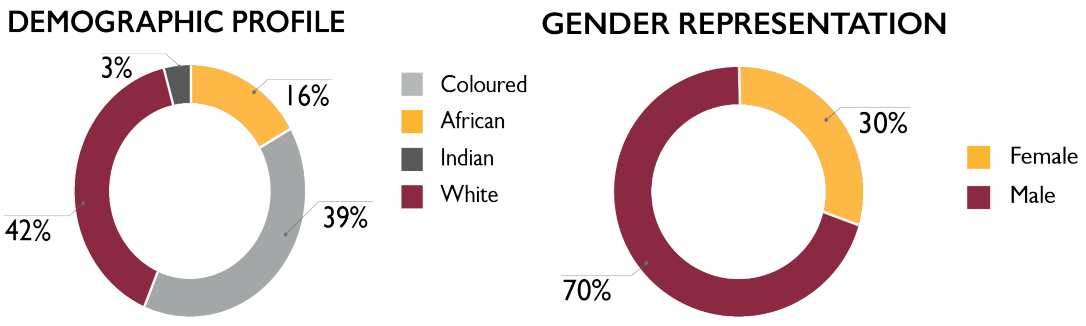


Figure 23: *Maties Sport's demographic profile and gender representation*

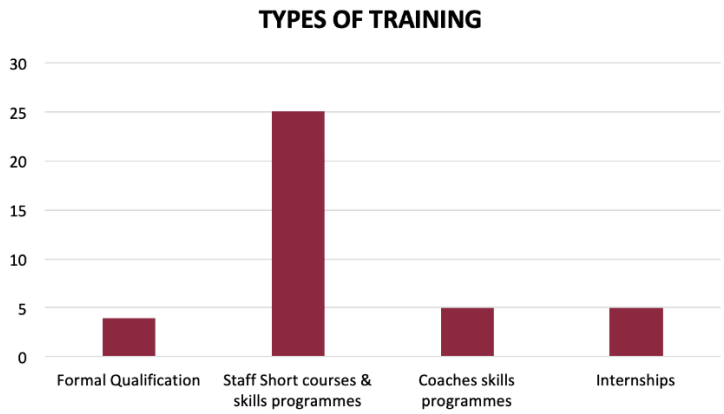


Figure 24: *Types of training*

4.1.2 Destination of choice

Maties Sport continues to work towards remaining a destination of choice and considering the results to date, we are confident that we have achieved this outcome. Our events and projects management team are working with the University's newly established Central Events and Conference Office (CECO) to further advance our service delivery and identifying new initiatives to support our income generation initiatives. Figures 26 and 27 summarises some basic facts about events at Maties Sports.

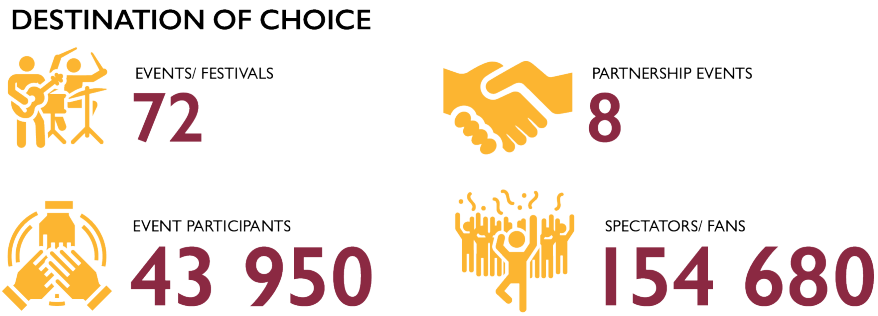
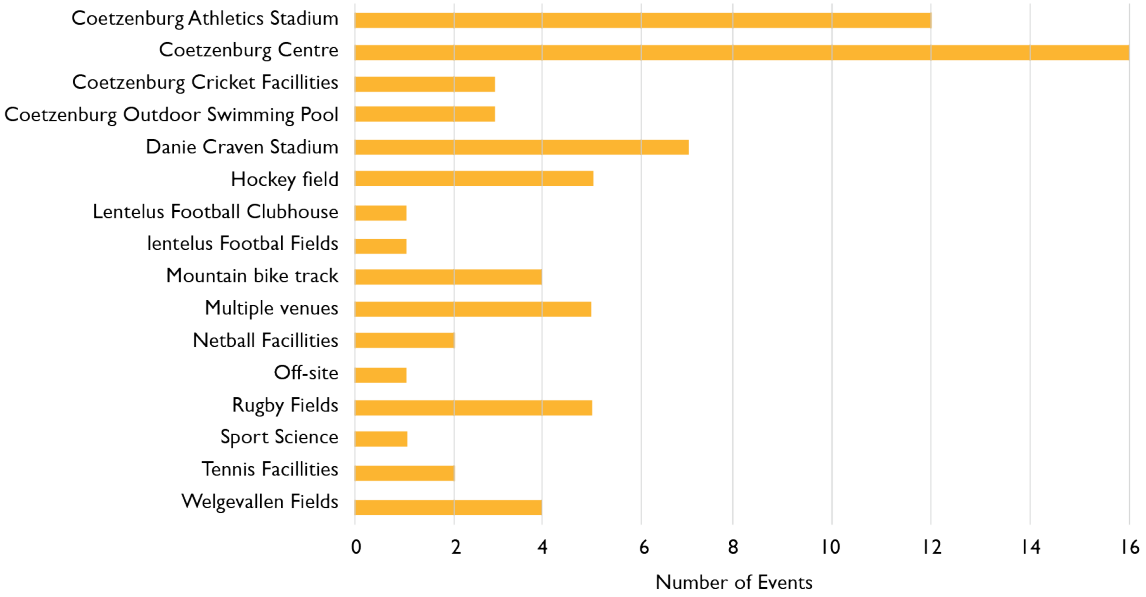


Figure 25: *Destination of choice*

EVENTS PER FACILITY



Number of events per Maties Sport facility. Coetzenburg Centre is the venue that is used the most, taking note that it is used for multiple activities including Choir festivals, Awards, Sport and Churches

Figure 26: *Events per Maties Sport facility*

Maties Sport takes pride in being a destination of choice. This is supported by the number of local, provincial, national and international events (provincial leagues; University Sport South Africa, Varsity Cup, Varsity Sports, provincial and national federations, etc.), we have hosted and plan to host in future and we do so in partnership with a number of stakeholders. Internationalisation through the bidding and hosting of international events remain an area of great opportunities with some successes such as The International Sports Federation (FISU) awarded Maties Sport the rights to host the 2022 Championship in Stellenbosch and we have been identified as the preferred venue for the Rugby Junior World Cup in 2022. Unfortunately, some national and international events for 2020 were cancelled due to Covid-19.

The upgrading of our sport facilities to meet national and international standards, led by SU Facilities Management, remain an important focus area and this is covered under the SU FM report in more detail.

4.1.3 High Performance

The common narrative that surrounds university sports is that the pursuit of excellence in academics and athletics are not achievable – or worse – impossible. This negative view assumes that our student-athletes are not able to achieve success in both areas or even that they are not really students at all. But here at Stellenbosch University and Maties Sport we reject this view and the 2019 academic results of our student-athletes support the case.

The High-performance athletes at Maties Sport achieved an 85% pass rate in 2019 demonstrating the success of our holistic approach though the PACER programme.

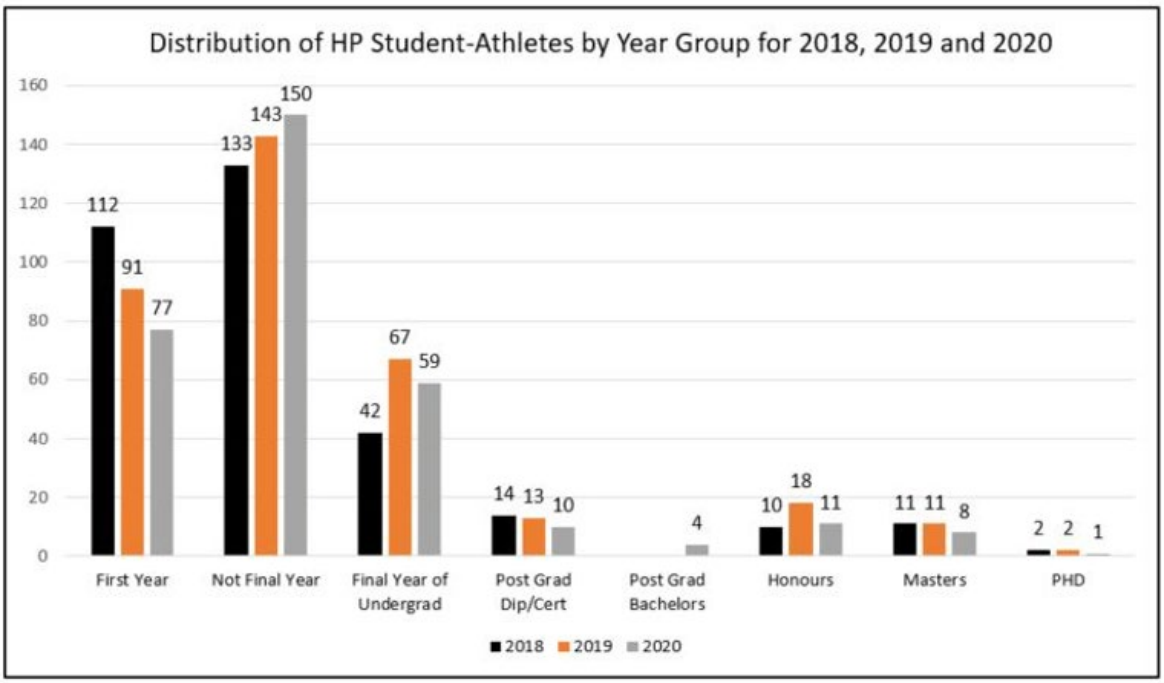


Figure 27: *Distribution of high-performance student athletes by year group for 2018, 2019 and 2020.*

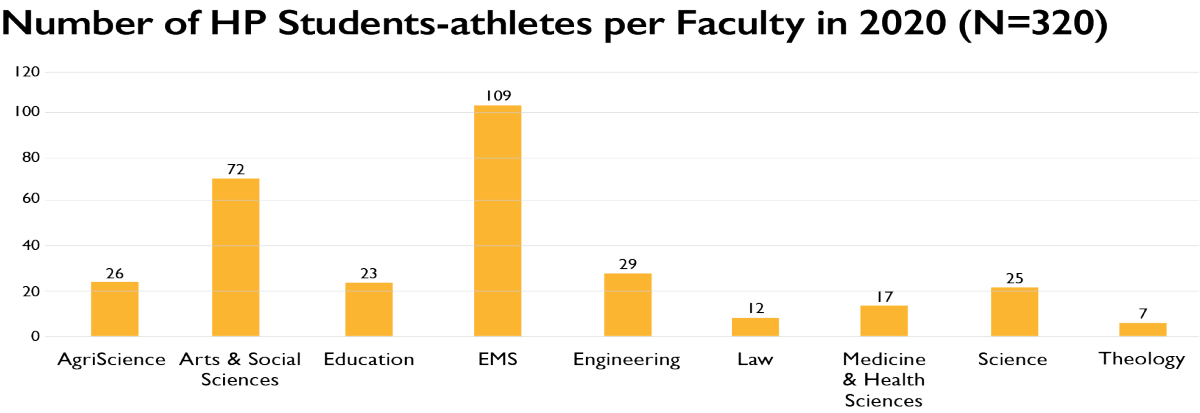


Figure 28: *Number of HP student-athletes per faculty in 2020*

The High Performance programme, together with the Chief Director, Ilhaam Groenewald, collaborated with the Sport Science Department in hosting a highly successful inaugural symposium on 'The Gender Gap in High Performance Sport Settings: A South African Perspective'. The symposium was held on 15 November 2019. It is a priority for all at Maties Sport to address gender issues and strive for balance.

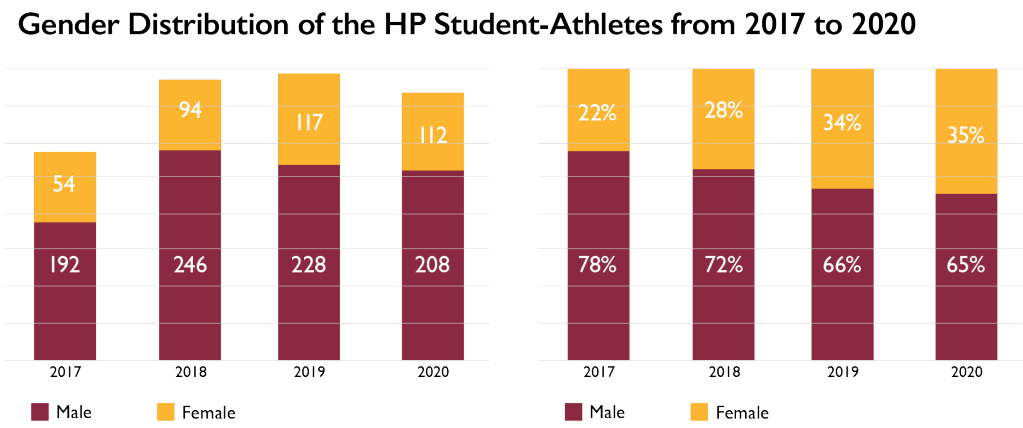


Figure 29: *Gender distribution of HP student-athletes from 2017-2020*

Our student-athletes were hit hard in 2020 with the Covid-19 lockdown – both in having to adjust to online learning and in having to face uncertainty in their chosen sport. The HP department and coaches stepped up to serve though providing all-encompassing support through webinars, online coaching and psychological support. Highlights of this extraordinary time include the Maties Hockey hosting 3 webinars (one for recruiting) that attracted 1 800 participants. This format may well become standard procedure given its unprecedented success.

The HP team has also run the very popular Connected Coaches seminar series, participated in international webinars, engaged with the #Train4Fees fundraising initiative and maintained the indomitable spirit through Maties Rugby hosting a Zoom braai!

Also launched online as the research collaboration between 14 Maties Sport coaches and Limerick University in Ireland.

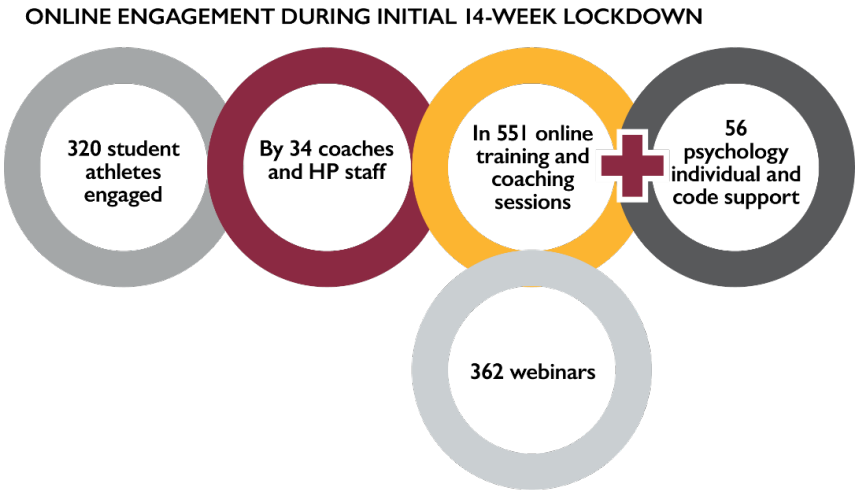


Figure 30: *Online engagement during initial 14-week lockdown*

4.1.4 Fielding Excellence

2019 was a year filled with many finals and semi-semi-finals and besides our back-to-back Varsity Cup victories, three particular performances stood out:

- Maties Netball reaching USSA and Varsity Sport finals, defeating TUKS the first time in over 10 years
- Maties Football's was promoted into the USSA A-section
- Maties Basketball Men & Women's team qualifying for Varsity Basketball 2019 within only three years on the High-Performance Programme. five years ago, who would've thought that SU's Basketball teams would be on TV in 2020!

Figure 31: *Sport codes*

Home heroes – winners at the 2019 maties sport annual awards

- Individual Coach of the Year – Heinrich Fortuin (Athletics)
- Team coach of the Year – Zanele Mdodana (Netball)
- Parasport Sportswoman of the Year – Anika Pretorius (Athletics)
- Parasport Sportsman of the Year – Kerwin Noemdo (Athletics)
- Sportswoman of the Year – Jo Prins (Netball)
- Sportsman of the Year – David Bedingham (Cricket)
- Team of the Year – Netball 1st Team
- Club of the Year - Hockey
- Student Administrator of the year – Ben Myburgh (Basketball)
- Number of Full colours awarded – 50
- USSA Winners – Water Polo; Cycling; Canoeing, ESPORT; Surfing
- Varsity Cup Winners – Rugby 15s and Young Guns

4.1.5 Financial Management

Continuous collaboration with Annemi Murray, Director: Financial Planning, and our full-time Accountant, Andy de Bruin, ensures that we focus on alignment and integration with our cross-subsidisation model.

Risk identification is an important part of our operations and is recorded continuously. Our annual budgets and quarterly reporting assist us to identify any potential club deficits early enough to implement mitigating measurements to avoid any possible risks that may impact on the delivery of programmes.

Income generation remains a priority and evidence shows that much work is required in this field. We do record some success for high performance bursaries donations and the retention of a few sponsors, however, the latter does not yet match our brand valuation.

The full-time appointed resource and a specific strategy with the Office of Development and Alumni Relations gives support to the current plan and we hope for a better outcome during
2020 and 2021.

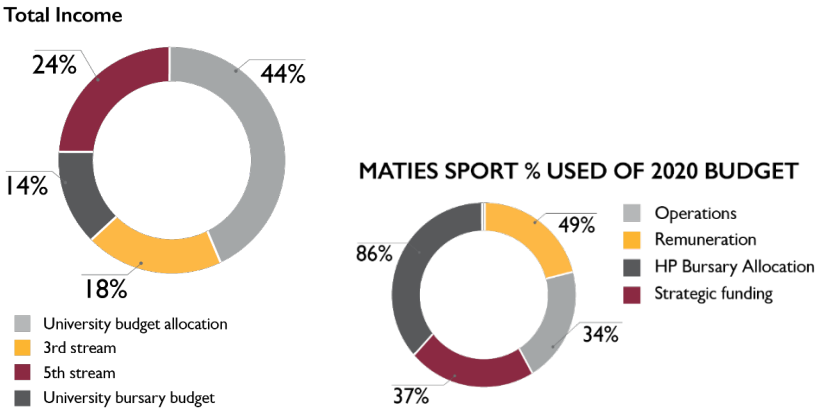


Figure 32: *Total income and Maties Sport % used of 2020 budget*

4.1.6 Centre for Sports Leadership

The Centre for Sport Leadership at Maties Sport has hosted a series of sport-related webinars as a means of bringing sport practitioners together during the Covid-19 lockdown period. This has offered an opportunity for online knowledge sharing across geographical boundaries as experts from a variety of fields have participated.

The most recent event, held on Wednesday 22 July 2020, saw Prof Stan du Plessis, Chief Operating Officer of Stellenbosch University, share his views on the potential economic impact of Covid-19 on South African sport.

Previous webinars held in June explored topics on transformational leadership, student athlete recruitment and the use of technology in sport. The series has also offered an

opportunity to collaborate further with the Global Sport Institute at Arizona State University – a current Maties Sport partner. In this regard one of the webinars used basketball as a case study to consider the theme of "Coaching in New Spaces". A total of five webinars have been hosted up to this point with more than 250 participants attending online.

4.1.7 Sharing our stories

The Media and Communications Unit underscores all Maties Sport events and processes through communications planning, coverage in real-time on social media, devising branding opportunities and informing activations to maximise the student experience and SU Brand advancement. Its value during lockdown proved invaluable in keeping the Maties Sport family connected and informed. The Unit also delivers multi-media presentations and productions for key event such as the Annual Awards and other significant gatherings.

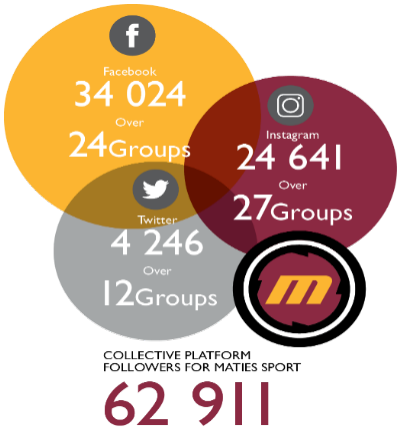


Figure 33: *Maties Sport social media platforms*

4.2 Facilities Management

4.2.1 Overview

The Facilities Management Division of Stellenbosch University (SUFM) are the custodians of the buildings, infrastructure and sports fields across campuses located in Stellenbosch, Tygerberg, Belville Park and Worcester. SUFM employs 215 people and through a business model of in-house and contracted service provision manages and services the portfolio. The portfolio covers a variety of buildings and infrastructure such as residential, academic, commercial, office buildings and sporting and recreational facilities. The Division is divided into 5 departments as shown in figure 34 while figure 26 summarises some key statistics about the division.

Figure 34: *SUFM Departments*

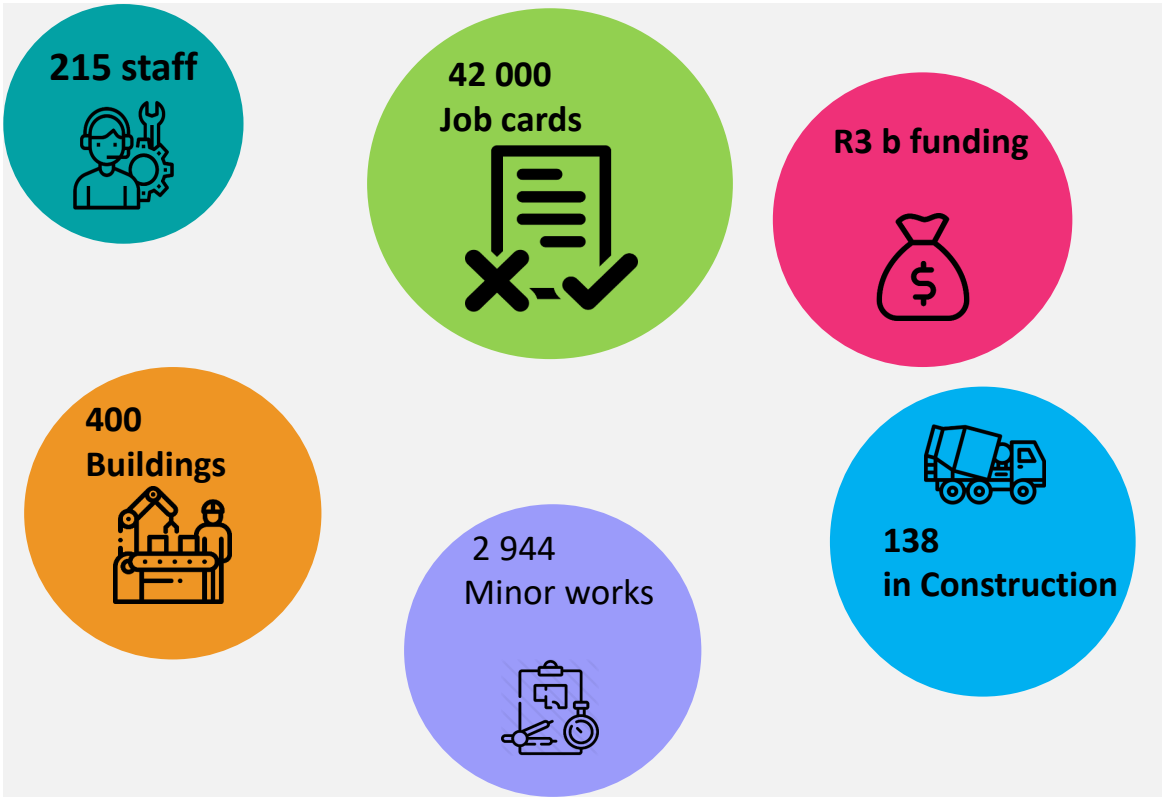


Figure 35: *SUFM in numbers*

4.2.2 FM Finance and business management

SUFM reports annually on all funding received from both internal and external sources, as well as the application thereof. The total funding received for 2019 amounted to R3 018m which is more than double the amount of R1 372m allocated during 2018. The increase is mainly due to the Campus Renewal Programme, the Engineering Campus Renewal and the Biomedical Research Institute (BMRI) at Tygerberg. As these projects run over more than one financial year, all the funding was not spent at the end of 2019. Contributions from faculties and departments' own funds, allocations from the Department of Higher Education and Residences have all increased.

Expenditure on SU facilities		Expenditure on SUFM enablers	
Source of funding	2019 (R'000)	Application of funding	2019 (R'000)
Campus Renewal	1 276 890	Staff costs	77 283
DHET	521 303	Consultant costs	5 978
Main Budget	464 330	Operating costs	4 922
Housing and Commercial Services	184 203	Equipment costs	1 070
Faculties & Departments	571 233	System costs	1 122
Total Funding available	**3 017 959**		
2019 Expenditure	1 120 456	2019 total enablers	90 375
Value-added expenditure *	1 030 080		
Ration of value-added expenditure to enablers	12 to 1		

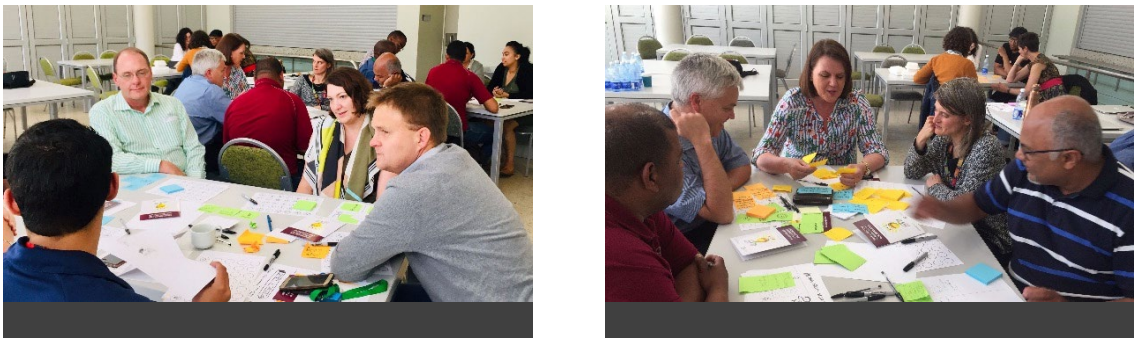
*Value-added expenditure comprises 2019 total expenditure on facilities, minus expenditure on SUFM enablers

Figure 36: *Value-added expenditure on SU facilities, and expenditure on SUFM enablers*

The ratio of SUFM's expenses to the total amount of spending improved to 1:12 in 2019 as opposed to 1:85 in 2018. This ratio shows that for every R1 spent on FM enablers such as salaries, training, equipment etc., R12 is spent on the improvement of physical infrastructure.

4.2.3 People management

We have continued with people development in SUFM. Middle management and supervisory staff were able to apply for a "Tribal Leadership" programme. The purpose of the programme is "Infusion of the SUFM values and culture" to ensure that we all have a common understanding of how we work and what our habits and behaviours should be. It is hoped that the outcomes will result in a breakdown of silos within the division and collaboration across departments. We have also continued with our "Spark Sessions" where the entire division could attend 2-hour sessions on various topics such as prioritising, innovation and creativity and communication. During this time that we have not been together physically, we have carried on with online meetings along the theme of "our new world".



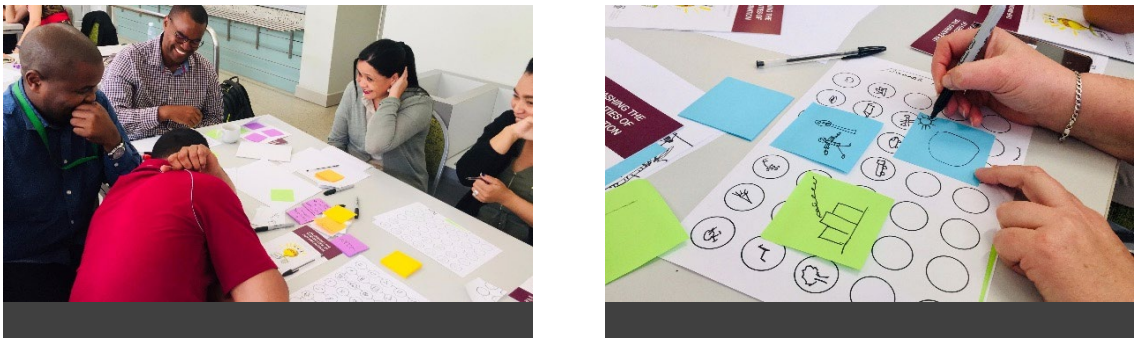


Figure 37: *Colleagues attending Spark Sessions*

Several senior staff in the Division have attended personal coaching sessions. This has helped to improve communication within the management team and has helped the colleagues to cope with the considerable stress that our portfolio brings.

4.2.4 Systems renewal

The Planon Integrated Workplace Management Solution was launched towards the end of 2018, and during 2019 the system had to be re-platformed to keep up with the newer Microsoft operating system and database. Precious lessons were learnt about integration between various Divisions and formal structuring and management of the change management process and action items.

Planon remains a work in progress with continuous tweaking, updating and fine-tuning of the system. FM, HR and IT are currently working on a solution to link staff and contractors' data from Oracle-eHR to ArcGIS and Planon to ensure no duplications exist, as well as enforcing the principle of "single source of truth/master data".

With both Planon and Oracle being modern software systems, it is anticipated that the integration with the Oracle Finance should be seamless with a few tweaks of the integrations to the current Adabas financial system.

The Capital Projects Office manages 139 projects to the value of +/-R2.2Bn. During investigations, it was found that the collaboration tools from within Oracle Finance's Projects and Grants module were not included in the initial phases of the implementation. Since Smartsheet is already being used by the consultants managing the Engineering Campus Renewal Programme, it was decided after an RFP in collaboration with IT to implement this for the other Capital projects as well. Smartsheet is used to assign tasks, track project progress, manage calendars, share documents and manage work, using a tabular interface. Smartsheet will assist with improved cost control, management reporting, statistical data and document management of capital projects. The implementation process has kicked off at the beginning of 2020.

The appointment of CiiMs Online Intelligence as Campus Security's main information management system has enabled the utilisation of live data (both quantitative and qualitative) towards operational planning, identification of crime hotspots and frequent offenders. The following integrations are being investigated: the Instacom patrolling devices, SU's alarm and CCTV monitoring systems and ArcGIS. These integrations will enable electronic transfer of information into the security database, saving time and the possibility of human error.

SUFM has released SU's first interactive campus map that can be used to search and navigate campus facilities. The previous SU Facilities App (with no interactive capabilities) has been removed from the Play and Apple Play store due to non-compliance issues with Google. The decision is in line with ArcGIS being the source of all SU's geospatial data and the minimising of the number of applications on campus. New developments to the Campus Map Application (CMA) will enable students to find their examination schedules

using their student numbers and view the relevant building where they will be writing their exams.

Building Information Modelling (BIM) is an intelligent 3D model-based process that gives architects, engineers, and maintenance managers the insight and tools to more efficiently plan, design, construct and manage and operate buildings and infrastructure. BIM intends to assist with the implementation of construction standards, improvement of planning quality and collaboration between project participants, and the transfer of digital data to operations.

The building consultants of the Biomedical Research Institute are currently utilising this technology to document the physical infrastructure, including all services in the building. SUFM has launched a pilot project comprising three existing buildings where the BIM technology will be applied.

Figure 38: *3D Virtual Model of the inside of Natural Sciences building*

4.2.5 Property services

The Property Services Department within SUFM is the custodians of all infrastructural assets. Their mandate is to minimise the risk and optimise the life cycle of all infrastructural assets and equipment. This department is committed to delivering at the optimum value through both SU staff and contracted services providers by sustainably meeting SU's legislative obligations. It includes a review of the type of plant, equipment and technologies required to attain the desired outcomes in support of the academic project.

One of the primary drivers of the Planned Maintenance Programme is to Optimise Total Cost of Ownership for SU portfolio. This includes periodic condition surveys of various infrastructure assets, including plant and equipment.

4.2.5.1 Property services maintenance execution strategy

SUFM's property services maintenance execution strategy intends to reduce reactive service and perform proactive and planned services. This strategy calls for the following: Planned (50%), Reactive (30%) and Proactive (20%) maintenance. These measures will improve service delivery and ensure the most efficient & cost-effective operation.

Property Services has initiated a review of all the scope of work of each manager to ensure equitable distribution on delivery of our mandate. One of the significant changes will be the addition of a Utility Manager and required support from Building Management System Staff and data management.

Utilities, which includes electricity, water, waste and gas, represents a significant operational expense to the institution. It exceeded R180 million in the 2019 financial year.

4.2.5.2 Long-term planning: strategic infrastructural asset management

In 2015 FM decided that a new strategy was required to optimise bulk services across all campuses as most of these had reached the end of its design life or started exceeding maximum capacity. For this purpose a consolidated plant provision strategy was defined.

A set of consultants were appointed to complete the following:

- MV Micro Grid for the three campuses (Stellenbosch, Tygerberg and Bellville Park) – this would allow for approved controls, consolidated backup generation and input of sustainable alternative energy sources (PV).
- New HVAC Precinct Plants Master Plan on Stellenbosch, Bellville and Tygerberg campuses.
- Bulk Water Services Master Plans, which included potable water supply, sewer, stormwater, alternative sources such as greywater and groundwater (boreholes).
- Alarms Master Plan on all campuses. These included the upgrade of the existing legacy systems with a new consolidated Patriot front end. The strengthening of current communication systems with the installation of RDC units and improved backup capacity (eight-hour batteries).
- A new Street/ Area Lighting Master Plan had been completed.

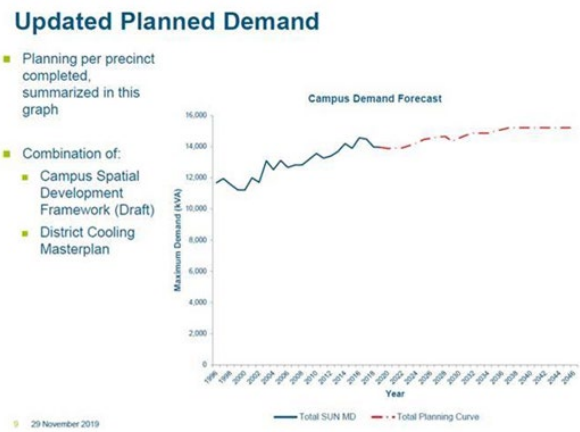
Figure 39: *(Left) HVAC Precinct plant at the Neelsie has been commissioned. This will serve the Neelsie and the new Jan Mouton Learning Centre. (Right) The first phase of the new central HVAC Precinct Plant at Tygerberg campus has been completed. This new plant will also serve the new BMRI building.*

4.2.5.3 Review of the 2016 electrical MV masterplan

In 2016 Royal Haskoning Consulting Engineers were commissioned to complete an electrical master plan for the Stellenbosch Main Campus. This plan examined the future electrical needs of the University over the next thirty years and mitigated the risk of failure by consolidating our primary municipal supply points into a new smart MV electrical microgrid. This would allow for improved management and control of electrical consumption and integrate future sustainable energy sources such as PV. This plan had to be revised due to several interventions using the BMS and the introduction of new Centralised Precinct HVAC plants.

This review of the MV Electrical Master Plan confirmed that the numerous interventions implemented by FM, including the installation of the new Tridium Building Management System, Precinct HVAC Plant and electrical reduction strategy have resulted in lowering the electrical growth in consumption. The 2016 Master Plan was based on historical data of the previous decade's electrical consumption which the engineers used to calculate and predict future growth patterns.

This new Master Plan reviewed the growth on the actual performance of electrical consumption given the interventions mentioned above. The results that the growth pattern was much lower than initially predicted in the 2016 plan and will result in lower demand of electricity as well as a substantial reduction in Stellenbosch University's Carbon Footprint as seen in graphs below:



Figures 40 & 41: *The graphs indicate SU's electricity demand over the next thirty years. SU will substantially reduce our carbon footprint as the predicted growth in electricity demand is lower over the next thirty years due to the infrastructural and other interventions completed and planned.*

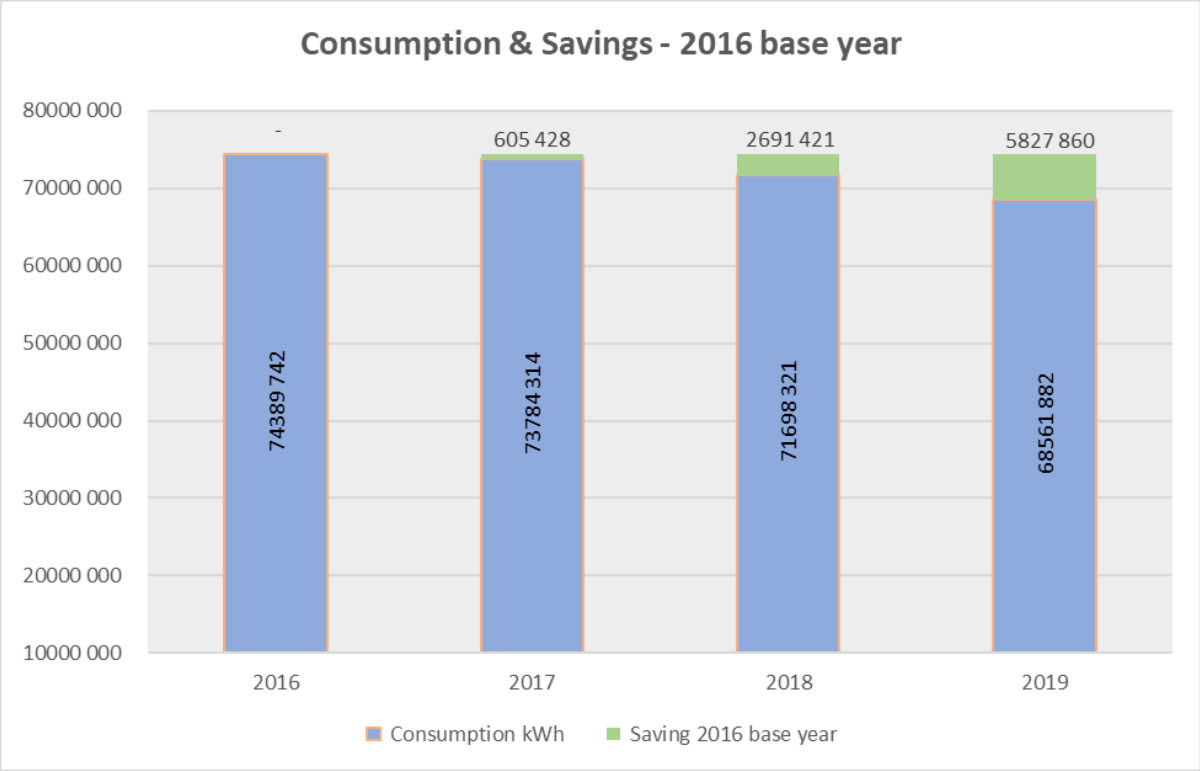


Figure 42: *Total saving of 5 727 860 kWh on electrical consumption from 2016 (highest recorded consumption) to 2019.*

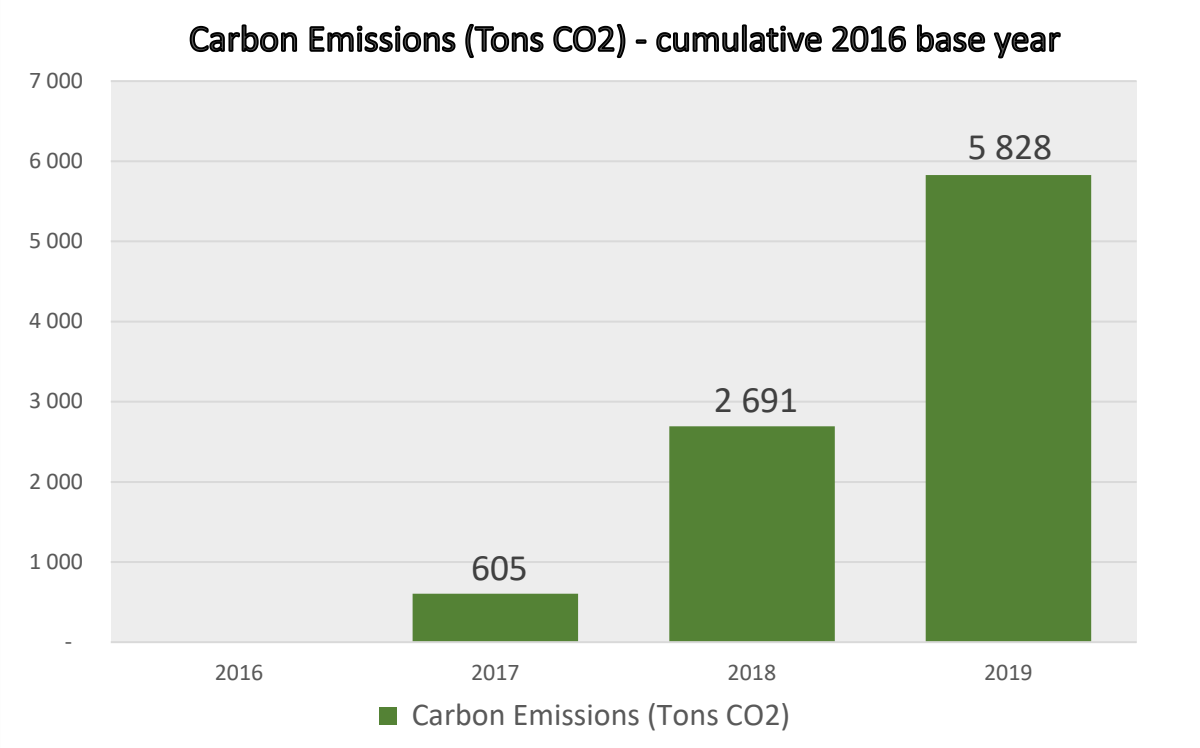


Figure 43: *Reduction of 5828 tons of carbon emissions from 2016 (base year) to 2019.*

4.2.5.4 Alarm masterplan

SUFM developed an alarm masterplan in 2019. The plan aims to:

- upgrade the incident and fire alarm monitoring infrastructure systematically and holistically; and
- leverage from new technological advancements in the process.

The project will result in the upgrading of the communication channels from the alarm panels in all the SU buildings to the campus security control room. The planned completion date for the main campus is September 2020.

This project includes the replacement of the long-existing landline connections with new GSM-based communication units. More than 300 units have already completed across SU's main campus.

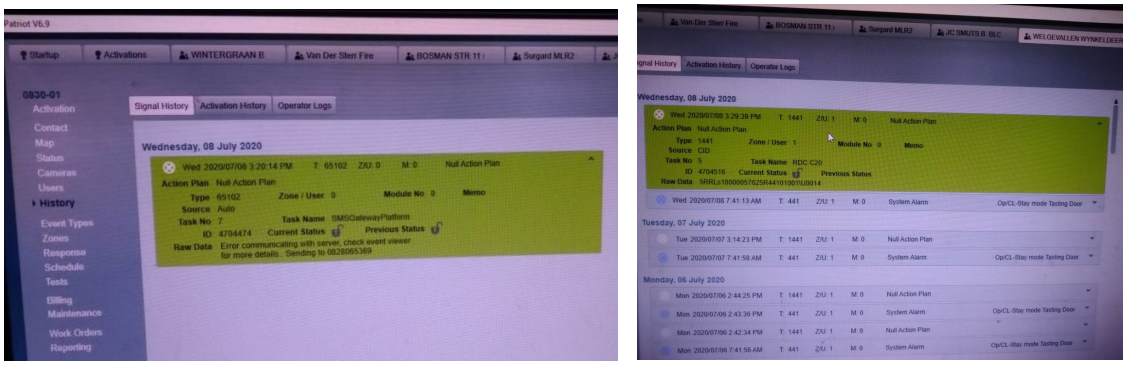


Figure 44: *Screens of the alarm control room*

4.2.5.5 Sustainability

Water:

South Africa is a water-scarce country, and all water sources need to be optimally used to ensure water security, including a sustainable supply for future generations. To this end - and with the advent of the water crisis since 2016 - SU implemented a strategy which is aligned to the UN Sustainable Development goals as ratified by South Africa in 2015. SUFM continued to improve on this strategy which resulted in further enhancements in 2019.

The SU Water Optimisation Strategy is aligned with the sustainability principle of Reduce, Reuse and Recycle to:

- consume water in an efficient effective and sustainable manner; and

- identify the correct source of water, both quality and quantity and match this with the functional use, without negatively impacting on the future supply, consumption or systems.

The result of the Water Optimisation Strategy and interventions delivered a 45% saving of municipal potable water based on the 2015 water consumption data which we sustained during 2019.

International Award:

At the start of 2020 Stellenbosch University became a member of the International Sustainable Campus Network Organisation (ISCN). This Institution represents all major universities across the globe. The network acknowledges the work done at various institutions to promote and implement sustainable projects and initiatives.

Stellenbosch University submitted an application under for the Whole Systems Approach category. The entry included several initiatives such as SU's greywater project. SU was the runner-up in this category. This is a significant achievement considering than we were competing against major global universities such as MIT, Columbia, Stanford, Oxford, Melbourne etc. We were also the first university in Africa to receive an award like this.

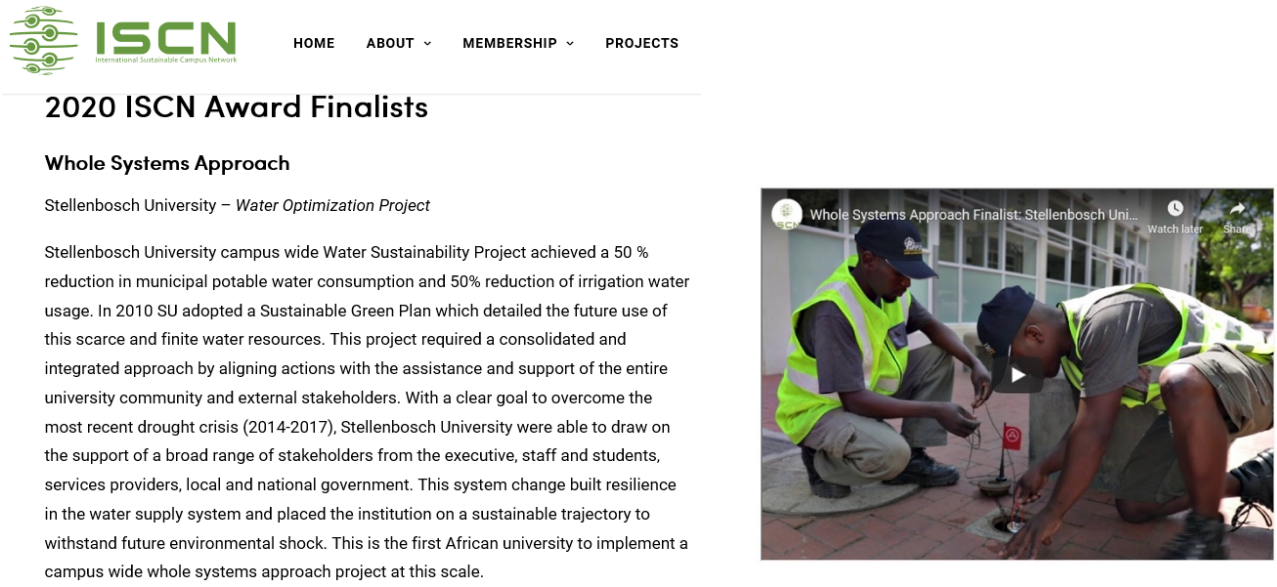


Figure 45: *The ISCN entry*

Herewith a link to the FM's team video which accompanied the competition entry:

https://wwwo.sun.ac.za/sustainability/pages/english/watersustainabilityproject.php

Sustainable Energy Future:

Stellenbosch University has initiated its first large Photovoltaic (PV) installation on the roof of the Neelsie Student Centre. This installation will generate approximately 350kW of

electricity, lowering our total demand for Eskom's coal-fired electricity. We anticipate that the system will be commissioned in October 2020. This is the first of several large-scale sustainable energy projects planned over the medium term. The project will impact on both the environmental and financial sustainability of the institution by reducing our carbon footprint and cost.

Figure 46: *The new PV installation on the roof of the Neelsie Student Centre*

4.2.5.6 Strategic infrastructure projects

Stellenbosch University continues to be one of the largest spenders on construction in the Western Cape with projects of more than R2 billion in construction.

Projects	Number	Value
Completed since 2015 to June 2020	88	R1 125 356 436,09
In construction (Gate 5)	37	R2 125 725 660,43
Projects in Gates 1 – 4 (Planning)	66	
Projects in Gates 6-7 (Close out)	107	
Total number of registered projects	210	

Figure 47: *Construction projects*

The year has been particularly challenging due to the business rescue process that Group 5 entered into. Group 5 is building the Jan Mouton Learning Centre. We have managed the project as best we can to ensure the quality that is delivered on-site particularly. The general crises state in which the entire construction industry is in has impacted most of our projects in some way or other. We have good relationships with the Stellenbosch Municipality and the Western Cape provincial colleagues, and we are receiving assistance when we request it.

The following plans show the extent of the construction projects on our campuses:

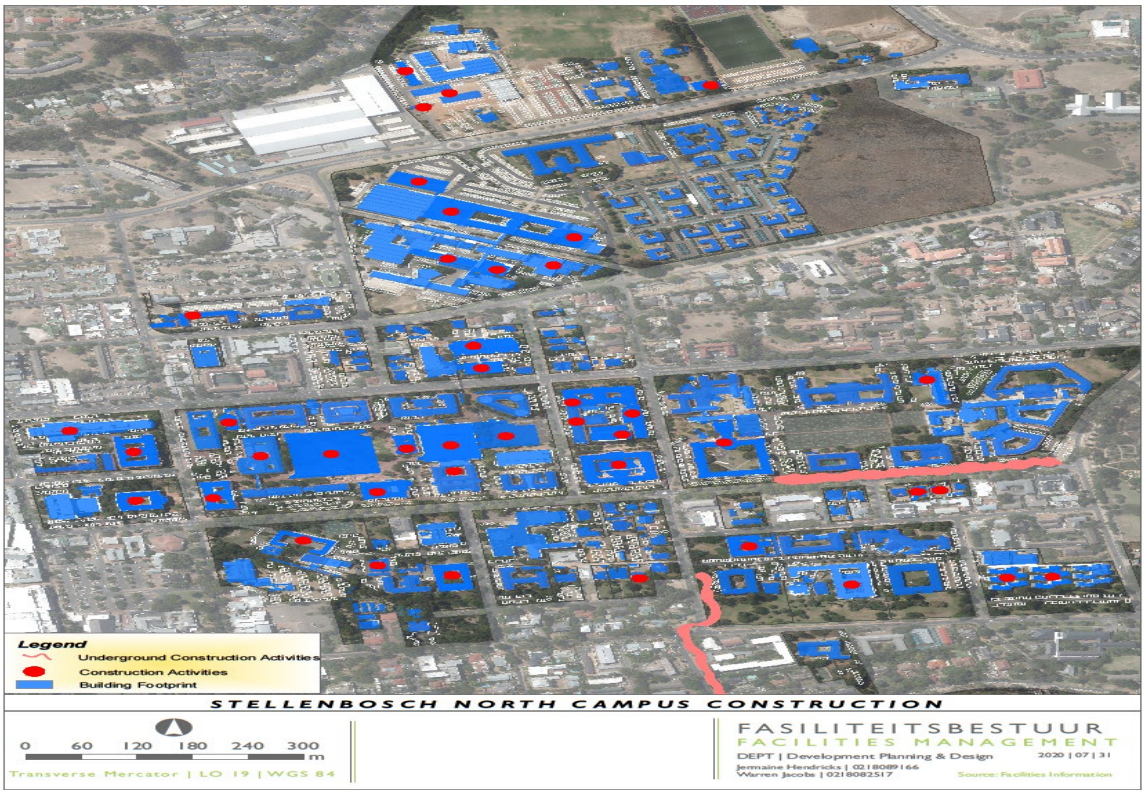


Figure 48: *Stellenbosch north campus construction*

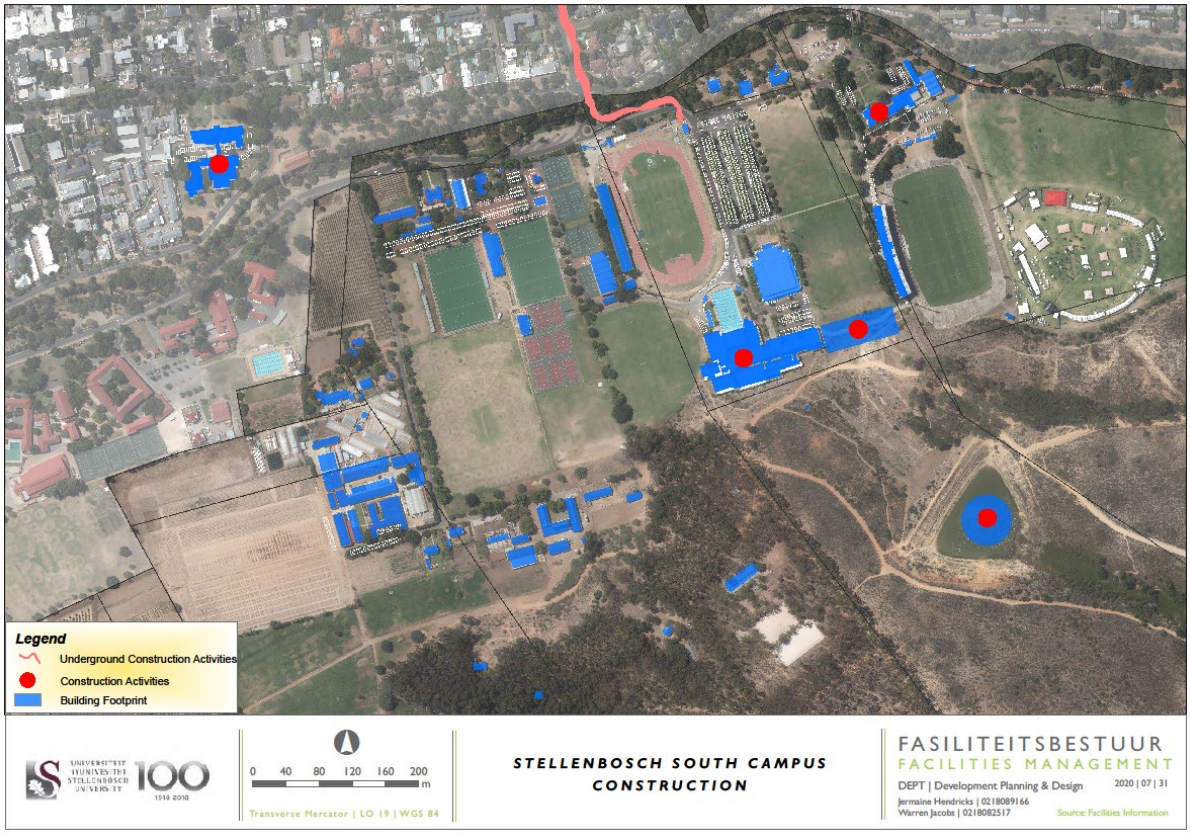


Figure 49: *Stellenbosch south campus construction*

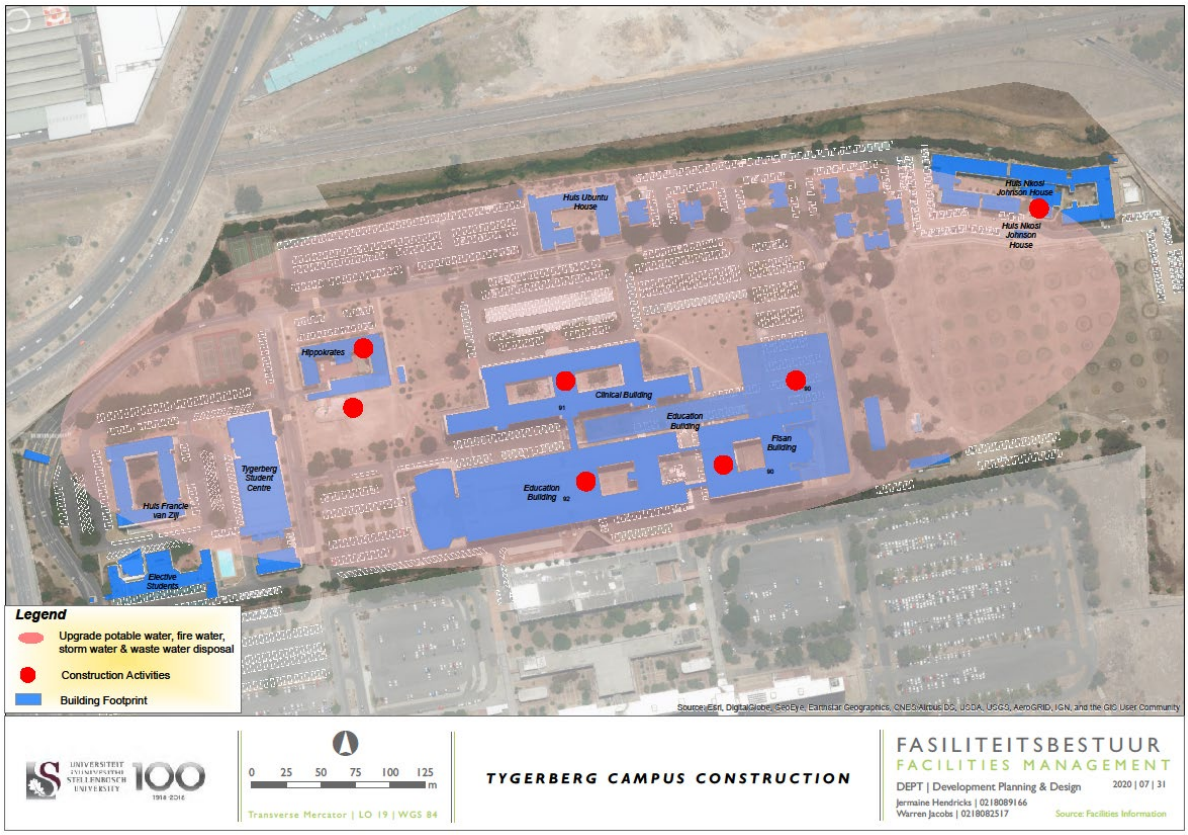


Figure 50: *Tygerberg campus construction*

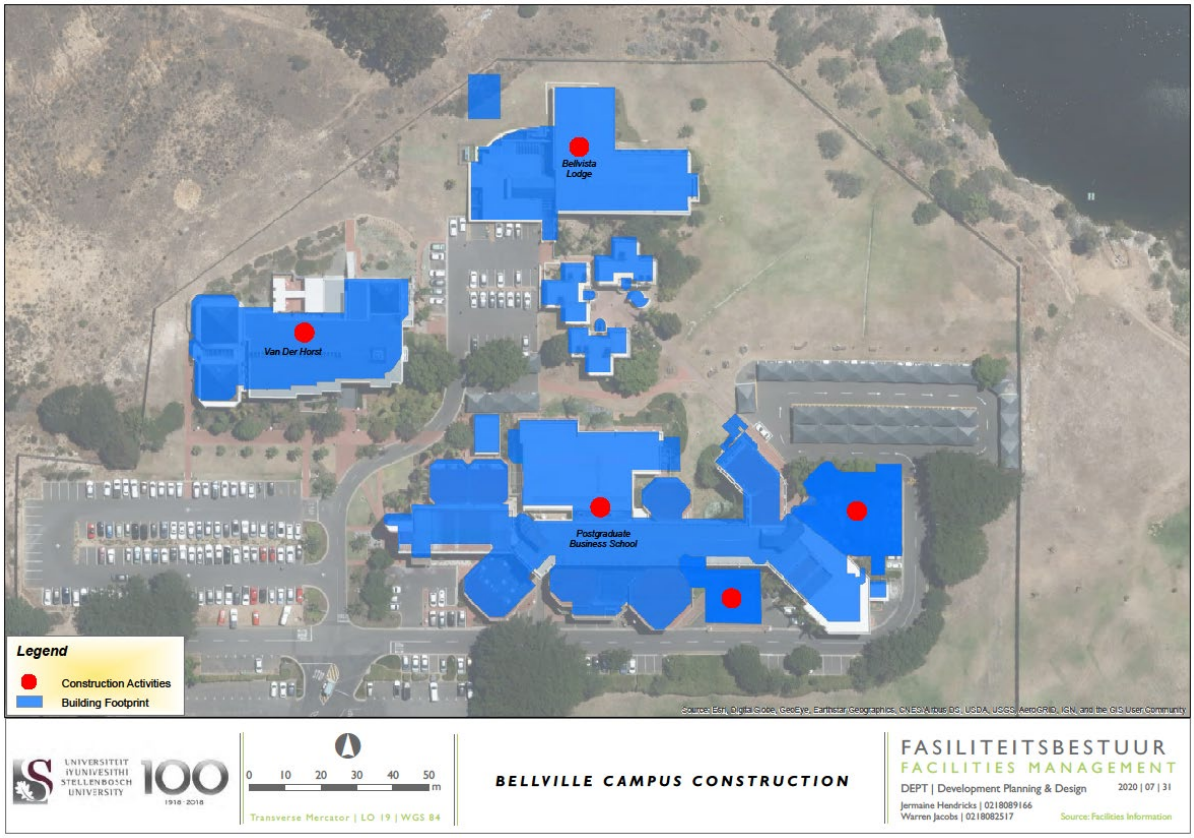


Figure 51: *Bellville campus construction*

Update: Impact of COVID-19 on the construction sector

All construction activity were allowed under Level 3 regulations with an obligation on contractors to screen staff on arrival and when leaving construction sites. On our large construction sites, this operation does take up to an hour in the morning and the afternoon and have a significant impact on production and working hours that can be spent on activities on-site.

Cases of Covid-19 infections have been detected on six of our construction sites leading to temporary site closures while deep cleaning takes place.

Due to the nature of construction sites, deep cleaning is only effective when building projects reach final phases of finishing once spaces are fully enclosed. Projects that are at earlier stages of commencement tend to entail open and well-ventilated construction areas which allow for quicker restart in the case of positive case detection.

The construction industry has generally adapted well to the current regulations, partly since the construction industry has always been highly regulated in terms of health and safety procedures and monitoring systems. The industry is also coming to terms with the contractual implications of the more recent stoppages. SU is currently obtaining legal advice on the interpretation of contractual claims while at the same time, understanding that some level of cost-share should take place between SU and contractors. Different construction contract formats dictate different response requirements by SU.

President Ramaphosa and Minister of Public Works and Infrastructure, Patricia de Lille, launched the Sustainable Infrastructure Development methodology at a virtual conference held on 23 June 2020. The President announced that Government is looking to the construction industry to be the "flywheel" of activating the economy.
To this end, Government will be using the Infrastructure Development Act of 2016 to fast track statutory approvals for qualifying public sector projects. In addition, Government is providing bridging finance to projects that address the goals of the National Development Plan.

It is expected that the national priority of infrastructure driven growth and support for the development and construction industries will permeate through to Local Government structure that has been identified as partially responsible for the statuary bottleneck in the development process. Although the industry has for the last number of years been calling for Government intervention in terms of Government procurement and alignment of statutory procedures, the Covid-19 crisis appears to have galvanised national Government into action.

The drive for infrastructure-led economic growth fit well into the current Campus Renewal Programme and Strategy of Stellenbosch University with 37 projects to the value of R 2.1 Billion in construction.

4.2.5.6.1 Biomedical Research Institute (BMRI)

The BMRI project site was placed under lockdown on Friday 27 March 2020 following President Cyril Ramaphosa's address to the nation. The Department of Higher Education and Training confirmed on 08 May 2020 that University Infrastructure projects might resume construction. The project commenced with a phased start on 14 May 2020 following the successful implementation and approval of COVID-19 related onsite protocols. The workforce returned to work in 30% increments reaching 100% capacity on 27 May 2020.

Figure 52: *BMRI Zone 1: North Elevation*

The internal finishing of the new building from levels 1 to 3 is progressing well. Drywall partitioning is complete, and ceiling grid work and hangers are nearing completion. Other activities progressing well include services installation in ceiling voids, installation of door frames and internal shopfronts, joinery installation and floor coverings. Installation of laboratory benches, including sanitary ware installation, commenced.

The remote liquid nitrogen installation final test for the Hamilton BiOS was completed on 2 June 2020 followed by the commissioning of the installation. The liquid nitrogen installation serves as a back-up protection system for the BIOS. It will protect all medical samples in extreme emergency cases such as normal and emergency power failures. The internal snagging to the biorepository area is nearing completion in preparation for the area handover to the end-user. The new Central HVAC system tie-in with the existing system and was completed on 15 June 2020.

The underground services installation, main fire and waterline, sewer and greywater connection in the area to the north of the new building has commenced in preparation for landscaping works and parking area construction. Basement extension works between clinical & education building is progressing well, and all concrete columns, as well as the suspended deck slab, is complete.

Figure 53: *Zone 1 Level 1: Internal joinery - printing station*

Figure 54: *Zone 1 Level 1: Internal joinery - entrance foyer*

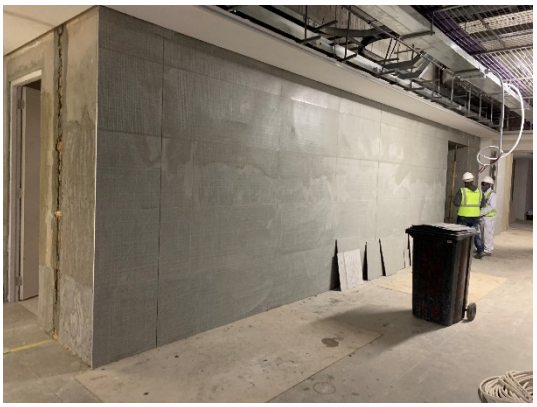


Figure 55: *Zone 1 Level 1: Internal tiling to walls & floors*

Figure 56: *Zone 1 Level 3: Vinyl flooring & laboratory bench installation*

Figure 57*: Zone 1 Level 2: Internal shopfront & vinyl flooring*

Figure 58: *Zone 1 Level 1: Laboratory benches & sanitaryware installation*

4.2.5.6.2 Renovations and upgrades to the Mechanical and Mechatronic Building

Renovations work to the Mechanical and Mechatronic Building resumed on 1 June 2020 after permission was granted to reopen construction sites, after lockdown. The appointed framework contractor GVK-Siya Zama reopened the site with the necessary COVID 19 Health and Safety protocols in place. The project is well advanced, and in the finale phases of construction, this includes final finishes and installation of final fittings. The commissioning of building systems like data, fire central Air-conditioning and access control is currently in full swing. The project delivery programme was adjusted to reflect

the COVID 19 impact on production. The planned occupation date moved to the beginning on the 4th term 2020.

The project consists of several distinct work packages:

- A new 311-Seater student computer use facility situated on the ground level.
- Three new electronic classrooms on level 2 and 3 which will provide 469 seats.
- A new Mechatronic laboratory that will provide 51 new workstations.
- Upgrades and densification of offices and post-grad open plan areas on levels 4, 5 and 6.

Figure 59: *North & South elevation of the Mechanical and Mechatronic Building in construction June 2020*

Figures 60 & 61: *New FIRGA on level 1 and new Mechatronic lab workstations*

4.2.5.6.3 Phase 3 upgrade of Helshoogte residence

The Helshoogte project slowly restarted after the initial lockdown Level 4 with Health & Safety specifications being updated and approved for the restart of site activities on phase 3, namely: the Helshoogte kitchen, dining hall, aluminium louvres, finishing of level 2 to 4 rooms, roof finishes and waterproofing.

In terms of room upgrades, the finishing of walls and joinery is progressing, with the electrical finishing experiencing difficulties due to Covid-19 response regulations. Tiling in bathrooms is progressing satisfactorily.

Work on kitchen upgrade areas has started, with new doors and roller shutters put in place to form the improved kitchen layout. Excavations for the new kitchen entrance started. The paving and landscaping in front of the residence are nearing completion.

The main entrance foyer is also upgraded to the latest access requirements to provide access for PSO students.

The current date for completion of phase 3 is mid-May 2021.

4.2.5.6.4 Fire repairs and upgrading of Huis ten Bosch

The Huis ten Bosch site was closed on 26 March due to the National Lockdown.

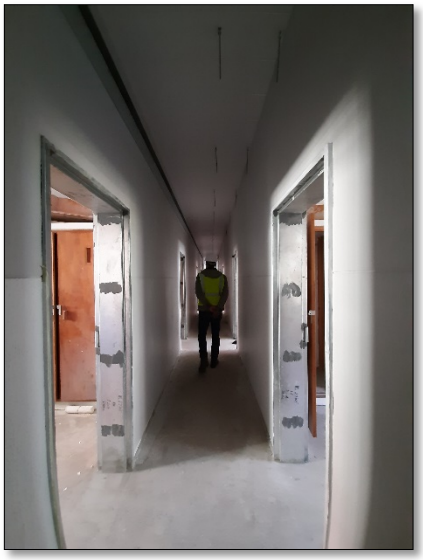
Post Covid-19 preparations started on 18 May, and we received approval to continue with construction on 27 May. A phased approach to the return of resources is being implemented to manage the risk of infection. The current delay claim due to the Covid-19 pandemic is 60 days.

All doors & frames affected by the new fire regulations on levels 2 and 3 have been removed. Installation of new fire door frames on these levels have been completed. Installation of new fire door frames on level 1 is in progress.

The electrical installation is in process on levels 2 and 3, the first coat of paint has been applied. The new fire rated ceiling installation on level 3 is in operation.

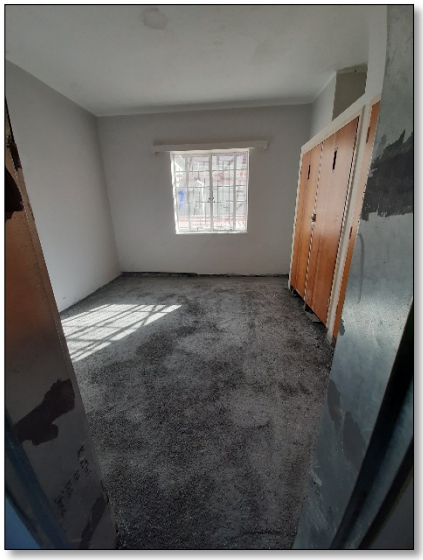
The LAN room structures have been signed off by IT, and cable tray installation is in process. The residence will be provided with a completely new IT installation.

The total project is certified to be 29% complete.



Figures 62 & 63: *Level 3 passage; Level 2 passage*

The rotting timber floors have been removed from the bedrooms on Level 2 and installation of the lightweight concrete is in process.



Figures 64 & 65: *Bedroom floor for new lightweight concrete; New kitchenette on level 3.*

4.2.5.6.5 Dagbreek kitchen

The tender for the upgrade of Dagbreek kitchen & additional works (new refuse room, new rest rooms, demolition of outbuildings) was awarded to BuildAway construction on 18 March 2020. Due to the National Lockdown, site handover was postponed until 19 May 2020.

Covid-19 compliant site establishment was done from 19 May to 10 June, when approval was obtained to commence with construction. The additional works are programmed with a sectional completion date of 20 August 2020. Due to the late start, the completion date is revised from 30 October 2020 to 15 February 2021.

Demolition work within the kitchen and the outbuildings behind Majuba are progressing well. The new refuse room has been marked out, with excavation being done by hand due to the number of underground services.

Figure 66: *Partial demolition of outbuilding behind Majuba.*

Figure 67: *Construction opening in Dagbreek kitchen.*

Figure 68: *Demolition & removal of floor in kitchen.*

Figure 69: *Removal of old ceilings in servery area.*

4.2.5.6.6 JH Neethling building: upgrading and services compliance

Initial site handover was scheduled for 30 March 2020. The main contractor, Bambana Management Services, took occupation of the site on 1 June 2020 due to the lockdown period.

Covid-19 Health & Safety requirements were implemented and signed off by the appointed H&S agent.

Demolition works in the following areas has commenced: Lecture rooms 1027, 1031 and ground floor ablution blocks. Preparation works have started for the construction of 2 new LAN rooms which will provide a new backbone for a total IT infrastructure upgrade.

Figure 70: *Lecture room 1027 before demolition works*

Figure 71: *Lecture room 1027 during demolition works*

Figure 72: *Contractor's yard*

4.2.5.6.7 Ertjieskloofdam

The Ertjieskloofdam project was awarded to Exeo Khokela on the 20th May 2020. The planned start date for the project is early October 2020. This falls just outside of the rainy season to minimize the risk complications during construction. The planned construction duration is three months.

The project will entail the complete refurbishment of the dam and repair of the existing leak. Currently, the dam can only hold a third of its capacity due to the leak. On completion of the project the dam will be able to hold 75 289.57m³ of water.

Compilation and submission of water use authorization application is currently underway and needs to be complete before construction can commence. The Department of Water

Affairs has informed the professional team that, due to COVID-19, their staff has not returned to the office. They are currently working remotely. This is delaying the application and is flagged as high risk to the project. Blue Science is appointed to assist in progressing the application, and they manage the process daily to make sure the water license is issued in time for the construction to commence in October 2020.

Figure 73: *The drained Ertjieskloofdam during the summer months*

4.2.5.6.8 Jan Mouton Learning Centre: completion programme

The Jan Mouton Learning Centre Main Building project remains 95% complete. The main Contractor, Group Five under Business Rescue, have submitted a revised programme for completion due to the Covid-19 pandemic. The completion date was 14 September 2020. The Principal Agents and PMO Project Manager are still doing regular site inspections to monitor progress on a daily basis.

The lecture room loose furniture tender was finalized during lockdown and the orders are placed. Final samples are being inspected prior to manufacturing being done. The final approved samples will remain at Procurement to serve as control samples during delivery of the rest of the items.

The soft seating furniture specification is currently being finalized where after it will go out to tender.

Figure 74: *South Western Corner View*

Figure 75: *North Eastern Corner View*

Figure 76: *Eastern View*

Figure 77: *North Western Corner View*

Figure 78: *Lecture hall nearing completion*

4.2.5.6.9 Planning for the upgrading and refurbishment of the civil engineering department

The planned renovation to the Civil Engineering Building will include new offices for staff and open plan student areas for the Civil Engineering Department and additional lecture facilities that will serve the expansion and growth of the entire Faculty of Engineering.

The scope of work will include the following main features:

- A new 450-seater Lecture Theatre on level 1.
- New Student Area on level 1
- Four new 260, 145, 230 and 275-seater classrooms on level 2.
- Two new 160 and 300-seater classroom on level 3.
- Renovations and densification to offices and open plan areas.
- Upgrades to all building services, including central air conditioning, electrical and data networks.
- General upgrades, modernisation to circulation routes and upgrades to ablution facilities.

Upon completion, the project will unlock the future proposed upgrading of the General Engineering Building that currently accommodate the bulk of the lecture facilities for the Faculty of Engineering.

KMH is the appointed Architects for the project. The detail design development and approval are in progress; the construction work is planned to commence in November 2020.

4.2.5.6.10 Upgrading of the Danie Craven Stadium

SUFM, in partnership with Maties Sport, commissioned an upgrading of the Danie Craven Stadium to be in line with the Safety at Sport and Recreation Events Act so that we can host the category A events like the PSL matches, etc.

The stadium was upgraded from March to be completed on 30 September 2020, and the focus on the changing/locker rooms, referees room, ablution facilities, medical room, fence outside and inside the stadium and the Venue Operations Centre (VOC). Maties Sport and SUFM are also in the process of finalising the upgrading Master Plan of the Danie Craven stadium to meet national and international standards.

4.2.4.7 Status of SU Spatial Development Framework (SDF)

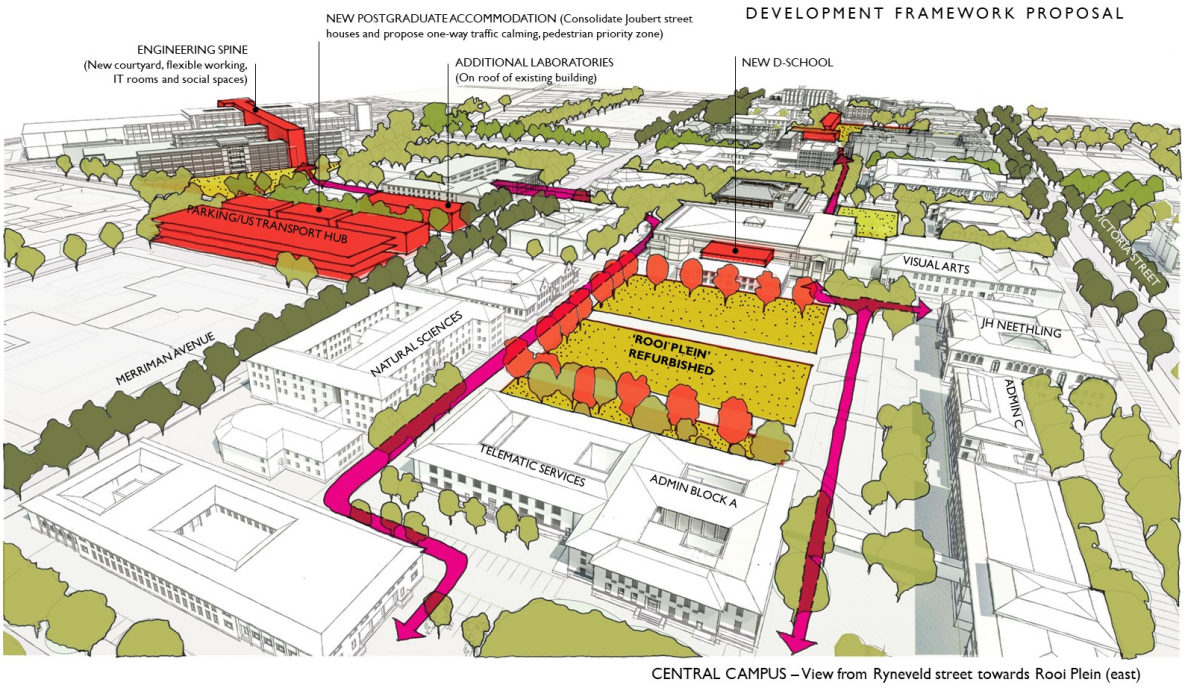


Figure 79: *Central SU campus: view from Ryneveld street towards the Rooi Plein (east)*

During 2019 various discussions took place with a variety of role players internally as well as externally to formulate a basic SDF that will guide future spatial development for Stellenbosch University (SU).

The status of the master planning for Stellenbosch University, is as follows:

- The SDF for Tygerberg Campus: complete
- The SDF for Bellville Park Campus: complete
- The SDF for SU property South of the Eerste River: complete

On 5 February 2020, a workshop was held to determine potential land for other properties that belong to Stellenbosch University not located in Stellenbosch Town (Satellite Campuses). Various role players from the academic as well as the non-academic environment, were part of the workshop. The following properties were discussed:

Figure 80: *SU properties*

- Bellville Park property
- Malmesbury property
- Welgevallen experimental Farm
- Mariendahl experimental farm
- Heidelberg Experimental Farms
- Klapmuts property

We will use the information obtained from this workshop to determine how these properties can address future growth scenarios for Stellenbosch University, which will be incorporated in the master planning.

On 12 February 2020, the basic Spatial Development Framework (SDF) for Stellenbosch Campus was presented to the Institutional Planning Forum. The presentation was a high-level overview of the proposed future spatial development for Stellenbosch Campus over the short -, medium – and long term. Comments have been obtained from various environments regarding the proposals. Follow-up discussions were held, and these comments will be incorporated into the basic master plan for the Stellenbosch Campus.

The COVID-19 pandemic also necessitated the recalibrating of thinking around the Spatial Development Framework considering the expected "new normal". The latter has implications on the proposed growth scenarios of the University and future need for space.

On 28 May 2020 a presentation of the updated version of the SDF was presented to the Chief Operating Officer for comments and input. It was clear that the decision about how big the University wanted to grow physically on the Stellenbosch campus had not yet been made. This decision is an important decision to be made and has a major impact on the Strategic Development Framework.

At this stage, planning is based on existing growth numbers and projected growth as received from the Division for Information Governance. The current planning indicates that the University is very close to the point where all existing development rights in Stellenbosch are taken up. The existing pressure on the town's infrastructure also plays a major role in future development here.

Further opportunities for comments and participation in the master plan process for the Stellenbosch campus will continue via ICT platforms. In the meantime, work continues to neatly package the SDF for all campuses into one document with text that puts the proposed spatial development into context. The next step of the SDF will be to present the updated SDF to the broader campus community and the local authority whereafter it will be presented to the Rectorate for approval.

4.2.4.7.1 The development of a new interactive campus map

Figure 81: *SU's new interactive map on mobile*

On 30 April 2020 the Department Development Planning & Design launched its first Stellenbosch University (SU) interactive campus map. The map is a digital revolution, which will benefit not only its students but also the local community and prospective students. Some of the key features of the new interactive campus map include a scale bar and a tool panel that contains the search, layer list, print and draw and measurement tools. The map also has a search tool that will allow you to search or browse for Stellenbosch University facility types such as parking areas, libraries, faculty buildings and campus destinations on all four campuses.

The new interactive campus map has been designed with an ArcGIS Web Application Builder framework, which will ensure less data usage in comparison to navigational tools such as Google Maps. The map is fully integrated with Facilities Management GIS system and therefore updated on a regular basis.

The map has still a lot of potential to transcend and evolve, according to different needs on campus. We are already busy with phase 2 of the development of the interactive map. During this phase, the exam table of students will be linked to a location; students will be able to see when and locate where they will write their exams.

4.2.4.8 Universal access to SU facilities

SUFM needs to liaise and regularly engage with SU's Disability Office to ensure continuous improvement for universal access on campus. From January 2020, the Director of Facilities Services has been serving on the SU Disability Office's monthly meeting. This platform allows all parties to bring to the table and discuss, any accessibility items or issues being experiences no matter how big or small they are. Follow up, and feedback on progress etc. is given monthly at these meetings.

The Facilities Services director will take any items or issues raised under Facilities Management (FM) to the relevant FM departments for further investigation, planning, input, execution or for future planning and implementation within projects or minor works.

For minor accessibility items, the Facilities Managers are used to engage, liaise and communicate with the relevant FM role players and environments to ensure the small details are executed and finalised. Minor accessibility items or issued are logged at the FM Service Desk and completed as a minor work.

Universal access to all SU facilities is a high priority for Facilities Management. Any useful feedback or input from the monthly Disability Office meetings are discussed and communicated to the FM Planning Team for consideration or incorporation during the planning and design phases of any capital project. FM engage and follow up any accessibility issues and problems, recommendations, implementation and the like with the local authorities and directorates where these may occur within public spaces (pavements, road crossings etc.) around campus.

4.3 Adopting IT as a mode of business, digitalisation enabling Business Continuity

Since the previous RC Annual report, the IT Division has achieved a dramatic acceleration in business digitalisation. The advent of the COVID-19 pandemic has provided additional stimulus to existing plans and execution of digitalisation strategies. This report will focus on further achievements in this regard. It is now more apparent than ever before that ICT is critical to business success, and indeed, to business continuity. The ICT division empowers all stakeholders by providing ICT systems, services and infrastructure that support the University's mission of being excellent in learning, teaching, research and social impact.

Since March 2020 the national lockdown regulations triggered dramatic shifts in emphasis of work in many domains in the University, expecting staff and students to switch to an online mode of working and studying from home, with very short notice. It has caused IT to focus our efforts on virtual aspects of service delivery, with less emphasis on physical support and infrastructure development on campus. The online mode of working and studying had a huge impact on IT priorities and support practices, which will be described below in more detail.

One striking example of the effect of a deserted campus on IT is the shift in internet traffic from campus to the public networks used by staff and students at home. Many students

and staff were not prepared for this and had to take emergency steps to equip themselves to continue their work online. This shift in network traffic is visible in the graph below, where maximum traffic level dropped from 5 Gbps to 0,5 Gbps since March, with an unusual rise in traffic from campus to external networks (SUNLearn) (see figure 81).

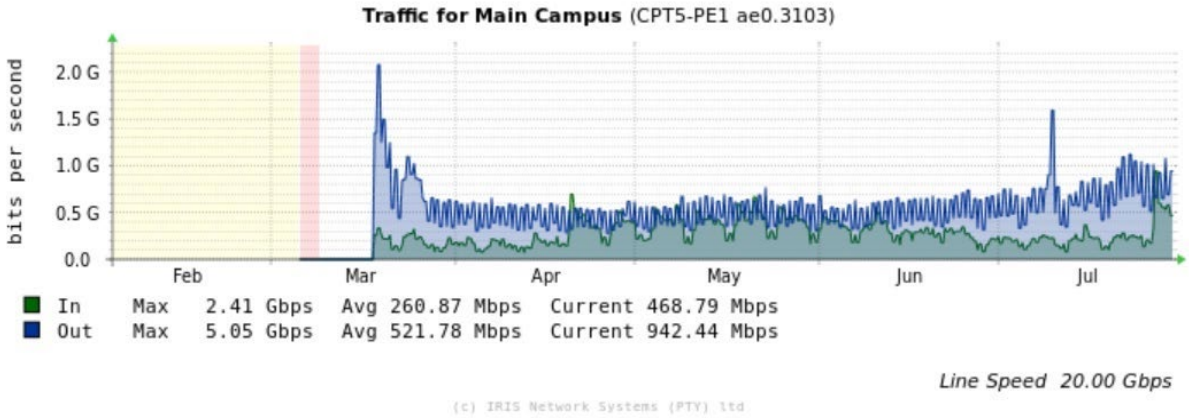


Figure 82: *Main campus internet traffic volumes in 2020*

4.3.1 IT strategic priorities for 2020

At the Institutional Planning Forum the IT priorities for 2020 were announced, without anticipating the dramatic changes to be experienced shortly thereafter. With the appearance of the COVID-19 pandemic, we had to suddenly reprioritise our plans, with Business Continuity as highest priority.

4.3.1.1 Business continuity

As from the middle of March 2020, the COVID-19 pandemic triggered a significant reprioritisation of activities in the ICT domain, focused on enabling business continuity of the SU. Due to the urgency of the matter, the IT Division had to reorganise and reconfigure existing infrastructure, systems, process and support capacity to enable a completely different delivery model and work environment for all role-players. Besides, some staff and students did not have the necessary equipment and connectivity to participate in this new model, and emergency actions were launched to fill these gaps.

In the midst of these major changes, we cannot predict the future with any certainty. Still, the current work model is expected to last for the next year, easing back to a hybrid model where many staff and students will continue to work and study from home. We plan to review our capabilities to sustain business continuity in its current form and gradually migrate the model to a hybrid environment. The Business Continuity contingency is thus expected to morph into an Accelerated Digitalisation Strategy.

The successful support of the new operational model (online) is illustrated by the almost normal workload experienced at the IT Service Management portal. The workload continued to follow the pattern of previous years, except one spike in May reflecting the load of 1800 laptop deliveries to students, which will be completed when the loans are closed (see Figure 82 below).

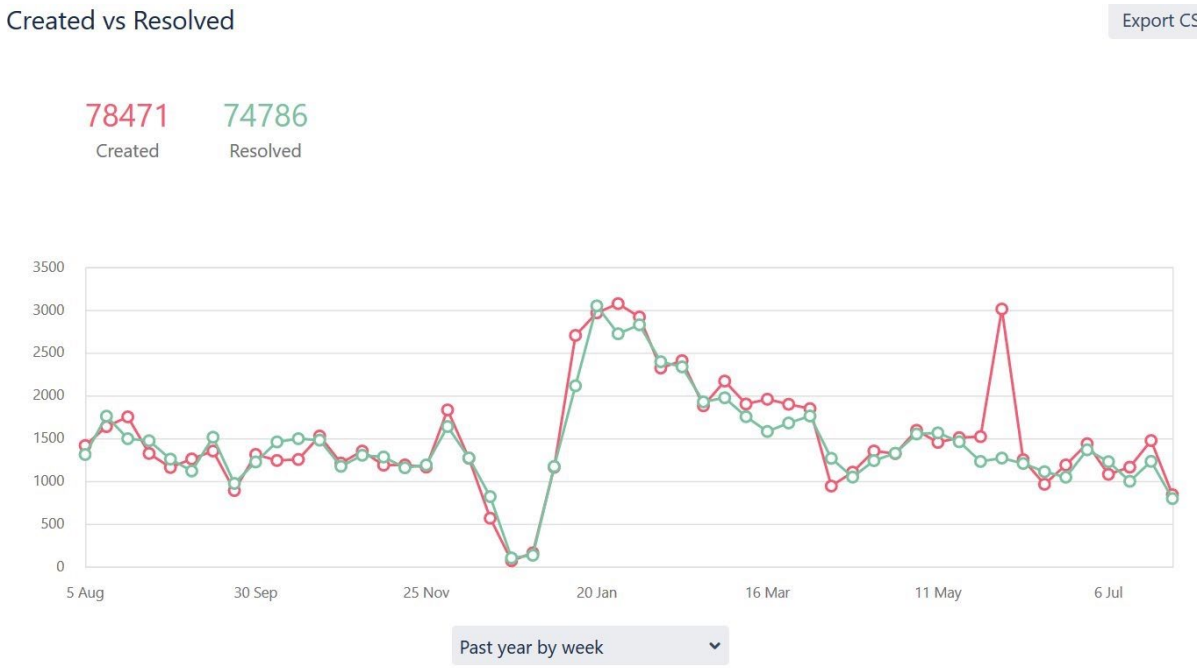


Figure 83: *Workload experienced*

Another view on this information about the workflow, is a summary by IT team responsible for the service processes in the IT Division. Each operations team has their own context-specific work processes, depending on the type of work that is required (Figure 83 below) .

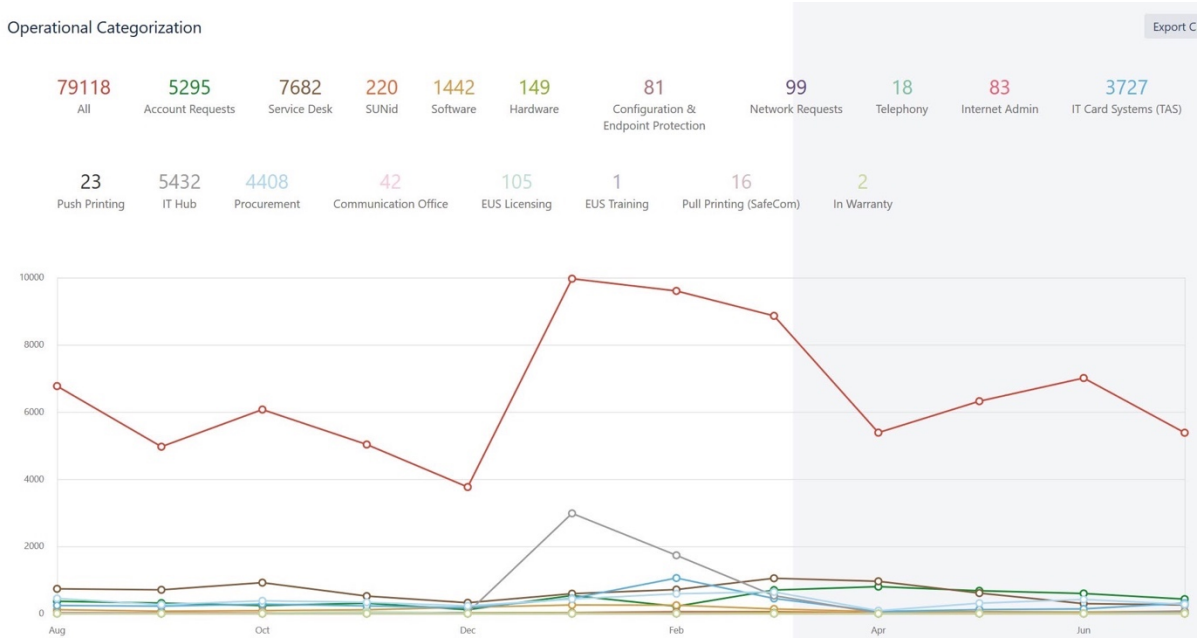


Figure 84: *Operational categories*

4.3.1.2 SUNxxx implementation

The implementation projects of new Student and Financial Administration Systems (SUNStudent and SUNFin) are running full-steam ahead, with the highest priority of all projects that IT is involved in, except for Business Continuity, caused by the unexpected COVID-19 pandemic.

SUNFin is rescheduled for go-live in July 2021, while SUNStudent will become available in stages, depending on the normal business cycle of the university.

For the IT Division, these projects involve more than just implementation support. The projects offer the opportunity to establish improved practices for IT architecture and IT programme and project management. Besides, agile development methodologies have been adopted, and the utilisation of cloud platforms offered additional modernisation opportunities. To illustrate the standardisation of service management, the *Control Chart for Integration Team Sprints* below shows the constant delivery pattern over the past two years. More detail about the project management and implementation methods are discussed under *Progress with establishing a campus-wide ICT architecture practice*.

Figure 85: *Control Chart for Integration Team Sprints This chart is an example of a management instrument within our Service Management system, providing information about workflow trends in a particular team. The chart should be interpreted by the following key:*

Three important aspects are illustrated:
Visibility *of workflow indication outliers requiring special attention;*

***Efficiency**, indicated by a decreasing rolling average;*
***Predictablity** of future performance, striving to decrease the standard deviation over time.*

4.3.1.3 ICT Service Delivery Model (SDM) implementation

After some delays due to priority changes, the SDM projects are gaining traction and support of new ways of working due to the COVID-19 situation, and the addition of key expertise in architecture and programme management. More detail on the current status is provided in section 4.3.1.8 that follows.

4.3.1.4 ICT talent management

In preparation for a *new normal* dispensation, there are some drivers which are clear imperatives in support of renewed focus on talent management:

- Increased rate of transformation required
- Pending retirements of senior staff
- New skills and capabilities required
- New technological opportunities for digitalisation
- Growing diversification of SU's product portfolio – short courses and hybrid learning

The ICT staff component required for the Accelerated Digitalisation strategy will have a different composition than the current staff profile, which needs to be addressed urgently.

4.3.1.5 ICT infrastructure and security upgrades

The IAM and Cybersecurity upgrade projects are in the early stages of execution, which must be executed within a different ICT ecosystem context.

There are three major initiatives underway:

- The SDM Cybersecurity and Risk Management project
- The IAM (Identity and Access Management) renewal project
- The network firewall replacement project

These projects are expected to be completed by the end of 2021, depending on supplier and supply chain availability.

With the continued focus on creating a portal for a university-wide service desk system the customer-facing website was upgraded to integrate a range of the Professional and Administrative Support Services (PASS)

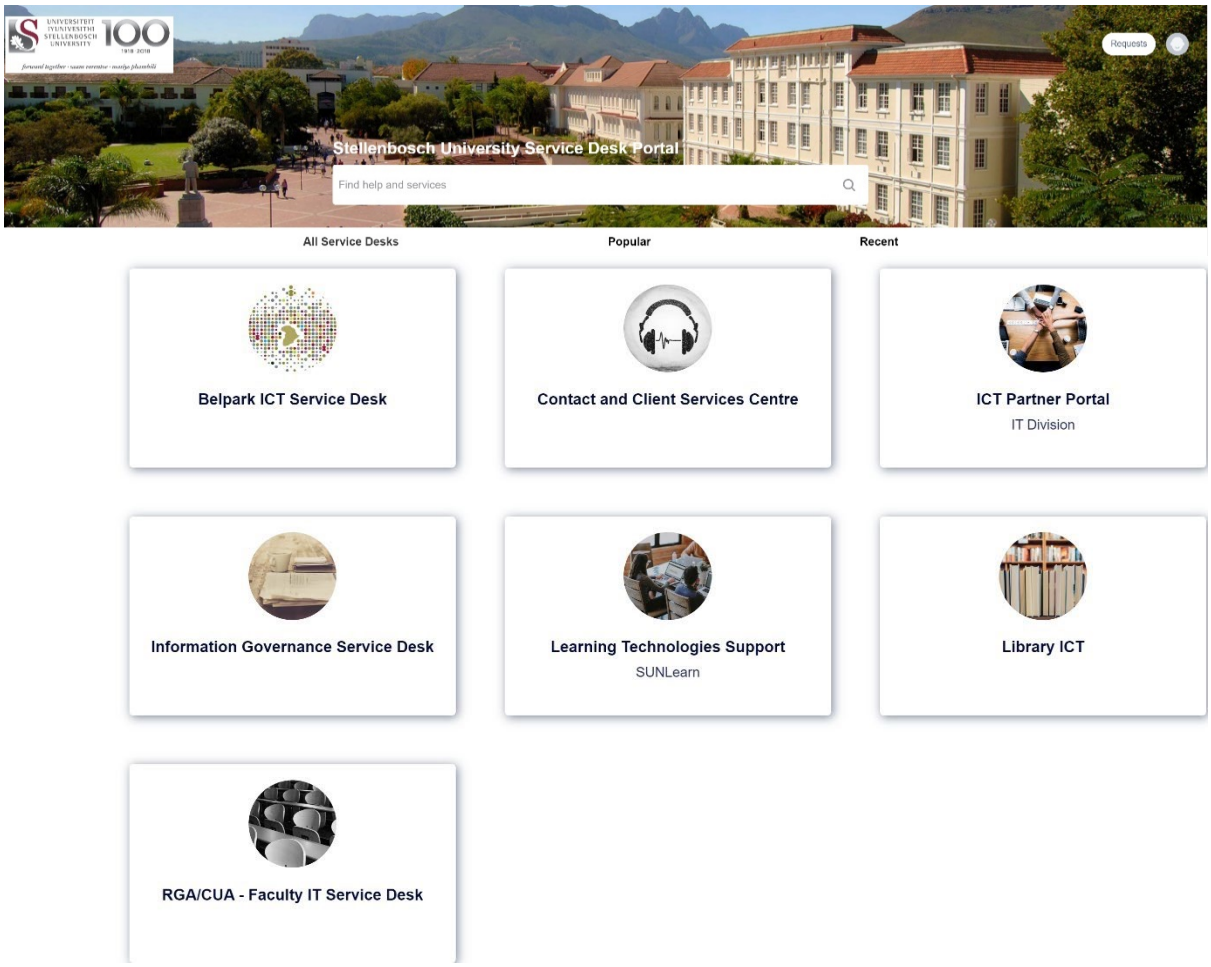


Figure 86: *Stellenbosch University Service Desk Portal*

4.3.1.6 Current state of Institutional Service Management implementations

Apart from the specific Service Desk implementations for Learning and Teaching support mentioned above, a total of more than 30 service desk implementations have been implemented as part of the broader strategy to enable all similar requirements with the same approach and technology. The list in Figure 86 below is a subset of these implementations, in various stages of progress, use and maturity.

The implementation approach is to assist each interested service area in defining their operational processes within the ITIL service management framework, which can then be automated with control points and visibility as required. This approach empowers the management of the service area to continuously improve their processes, define SLA's and eventually produce meaningful management reports with the click of a button.

Figure 87: *Current service management projects and portals*

4.3.1.7 ICT service delivery model implementation

The Division has also made substantial progress in reinventing itself and grow into a mature, capable entity geared to deliver excellent ICT support services in collaboration with both internal and external partners. One of the ways this has been achieved was through the service delivery model review, which has just been concluded. A detailed update on the implementation of revised IT management practices and extended service management systems is core to this year's progress.

The implementation plan produced in the report at the time was structured to create a focus on key areas of concern highlighted in the report as well as for the two strategic in-flight projects, SUNFin and SUNStudent.

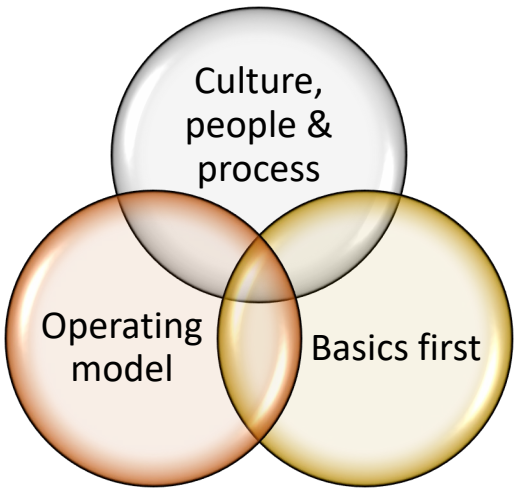


Figure 88: *IT's three super themes*

With the three super themes identified and with the need to accelerate the ICT SDM changes the eight projects where restructured into two main projects:

- the Service Delivery Model (SDM) project and

Operating Model

- the ICT Architecture and Project development method (ADM)

Culture, People and Process
Basics First

Within each project the following Guilds have been formed and they will create the required framework for the establishment and management of the practice

- ICT Service Delivery Model
- ICT Architecture
- ICT Risk Management
- ICT Project discipline

4.3.1.8 Realignment of the implementation approach

The implementation plan presented as an approach to realise the benefits of the ICT Service Delivery Model (SDM) at the time was structured to create a focus on key areas of concern highlighted in the report, as well as for the two strategic projects that are in flight SUNFin and SUNStudent (SUNxxx).

The need for a more coherent approach was identified to assist with the accelerated adoption of the SDM. This approach will address the needs of the SDM report, as well as the new demands in ICT and additional risks identified in two reports published, namely:

- the Cyber Assessment capability report; and
- the IT Project Delivery Capability review report.

An analysis of the interdependencies of all the SDM projects necessitated a review of the deliverables within each of the identified projects. This ensured that all the preceding deliverables were aligned. As part of the ICT Architecture practice development, the SUNxxx projects was identified as a catalyst to implement the practice practically. This implementation within the SUNxxx projects emphasised the criticality of interdependencies.

With the three super themes identified, and with the need to accelerate the ICT SDM changes, the eight projects were restructured into two main projects, namely:

- the ICT Service Delivery Model (SDM) project; and

- the ICT Architecture and Project development method (ADM) (as illustrated in Figure 88 below).

Five Guilds have been established to support the practice development, namely: SDM Coordinator Guild, SDM Guild, ICT Architecture Guild, ICT Project discipline Guild and the ICT Risk Management Guild.

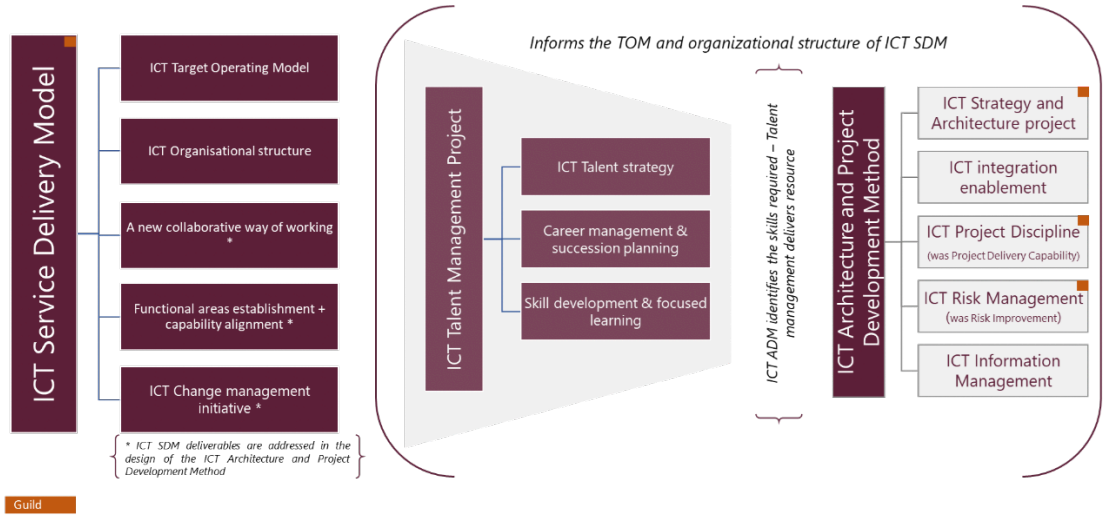


Figure 89: *ICT Service Delivery Model and ICT Architecture and Project Delivery Method*

The ICT Architecture and Project Development Method (ICTADM) was identified as the accelerator in adopting a new ways of work. The ICTADM aims to create a system thinking methodology that can be applied across the University to develop fitting architectures across the architecture domains as defined in the University.

The Architecture Development Method (ICTADM) identifies the capabilities required to deliver on the institutional needs for ICT architectural changes (requests), that will be grouped in the Functional areas to build the capability model in response to the service demand. This will in turn assist with the identification of the expertise and skills required for a capable, effective and modernised SDM. The SDM deliverables collaborate ways of work, and ICT change management initiative are addressed in the design of the ICT Architecture and Project Development Method. The ICTADM logically collects the buildings blocks for the formulation of the regulation. The capability model and the ICTADM will inform and support the target operating model and organisational structure of ICT SDM.

Progress with establishing a campus-wide ICT Architecture Practice

The ICT Strategy and Architecture subproject of the IT Service Delivery Model Review project settled on the following parallel, two-pronged approach:

1. Establishing a multi-disciplinary, cross-campus Guild (or community of interest) to conceive and design the broader governance and practice elements, and context;
2. Use the SUNFin and SUNStudent projects to pilot and implement practical elements of the practice.

The guild reached consensus on the following definition of ICT Architecture:

- ICT Architecture is a planned, deliberate, feasible and measurable approach to ensure that the institution's vision, strategy, capabilities and evolving operating model are supported and enabled by information and communication technology.
- ICT Architecture formally develops an ICT strategy that guides changes in information and communication technology from a current to a future, desired state.
- ICT is the institution-wide ICT function, not a division nor organisational entity.

The guild has met ten times and is working on developing recommendations and principles that define the elements of future ICT Practice. A significant milestone was the drafting and approval of an ICT Architecture Design Authority (ICTADA) Terms of Reference which is a vital body to ensure that ICT solutions meet the needs of, and are coherent across the University. ICTADA will find its immediate activation within the ICT Architecture workstreams of the SUNxxx (SUNFin and SUNStudent) projects and serve all future projects as well. Following the implementations of ICTADA, the new ICT Architecture Board will also be implemented to serve as a technical governing body to the ICTADA. These structures are aligned to international architecture best practice.

The ICT Workstream in SUNFin is using the Agile methodology to design and implement key enabling ICT solutions vital to the successful rollout of SUNFin, under tight time constraints. Once more, this is a multi-disciplinary and multi-divisional effort. The agile methodology will also be used in SUNStudent and other projects, where applicable.

The Architecture Practice also developed a management dashboard (Figure 89 below) to visualise sprint progress and workload management. This is another example of the Service Management workflow visualisation implementations.

Figure 90: *Management dashboard*

4.3.1.9 Progress with SUNxxx programme and project management practises

Programme Monitoring and Control

The SUNxxx programme has entrenched the following practices:

- Completing strong project schedules embracing key schedule compilation best
- practices;
- Baselining project schedules to track planned vs. actual progress;
- Implemented progress reporting against the baseline and not subjective progress
- feedback. It is in its infancy but there is a grow path.
- Formalised Project Decision Register;
- Working on and controlling a formal Issue Register; and
- Actively focusing on project and ICT-related collaboration between SUNFin and SUNStudent.

Programme Governance

The SUNxxx Programme is collaborating with the IT Project Management Office (PMO) to highlight programme and project maturity growth areas. It is ensuring that SUNFin and SUNStudent equally embrace best-practice project execution, monitoring and control. These project management best practices will systematically be embedded in the PMO operations.

4.3.1.10 Academic ICT support

The Academic ICT team provides a strategic and advisory function to academic, research and professional support services partners in identifying and selecting relevant, effective technology solutions to meet their needs.

The Academic ICT Team has grown with two vacancies being filled during 2020, during lockdown time. The onboarding of the new team members went well, and the team is fully functional. Team members are not only able to fully continue their work from home, but exceeded all expectations and played a vital role in ensuring continued services despite lockdown. The team is still small, but it contributes significantly to facilitating new services and systems, as well as playing a significant part in projects.

The single most significant achievement for the year has been transitioning or helping the academic community transition from an on-campus organisation to a digital-first, mostly online organisation and thus ensuring largely uninterrupted services. First and foremost, teaching and learning and assessments could continue during lockdown, despite many challenges. Teamwork with other Pass services, such as the Division for Learning and Teaching Enhancement, was key to this success. The effort was directed at:

1. Ensuring that SUNLearn could sustain the load of the emergency fully online learning mode.
2. Ensuring that exams could proceed online.

Sustaining the fully online load

During the first weekend of May, the SUNLearn server was migrated to a more powerful hardware platform, and load tests were performed to assess the capability of the new server. The load had increased by at least a factor 10 (see graph below), but the new server manages the load well. Typical numbers seen are up to 3300 concurrent users at a point in time, up to 21000 distinct users per day, and assessments with up to 1700 students for a particular module.

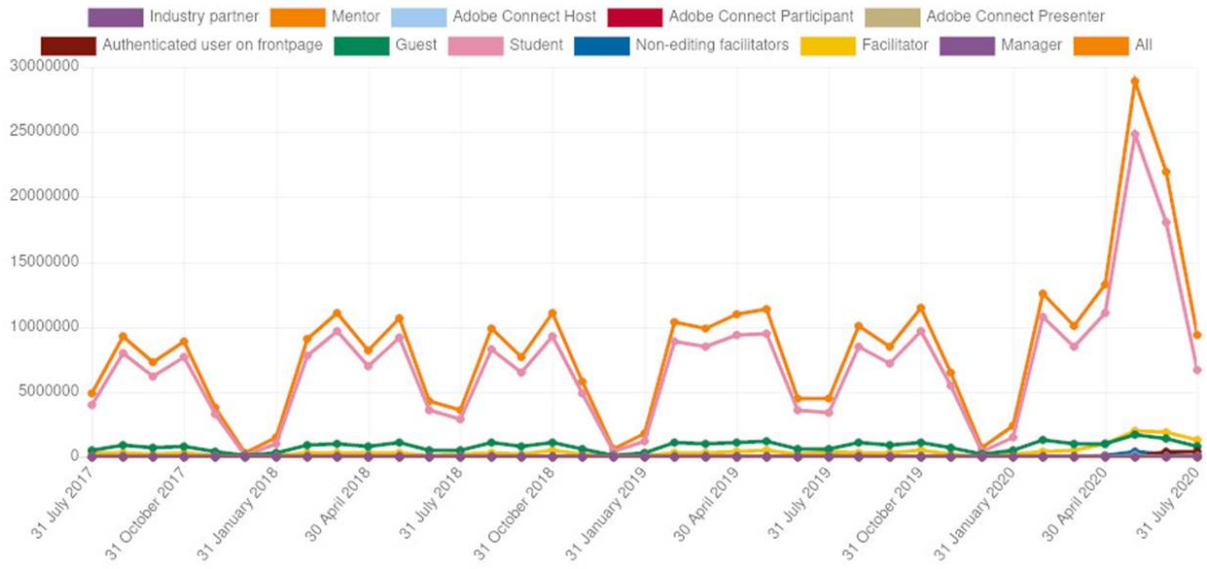


Figure 91: ***SUNLearn Activity Increase indicating effect of COVID-19 and transition to online mode:*** *A sharp rise in* ***All*** *and* ***Student*** *activity since April 2020 can clearly be seen, of which online assesments are a significant component. The sudden increase in activity triggered the emergency implementation of a new, more powerful data base server to cope with the increased workload.*

Monitoring and reporting of the system were improved, and reporting was provided on the emergency remote teaching to the Department of Higher Education and Teaching.

The Learning Technology Systems service desk was completed and has improved the level of user support. This service desk also allowed IT and CLT to scale the service to cope with the increased volume of calls from staff and students.

Student support is now being offered for the first time. Support hours have also been increased to 22h00 and Saturdays. The Centre for Learning Technologies prepared training materials and documentation, and then successfully trained staff and students.

The University arranged for laptops and data for who had to learn and write exams remotely students who did not have access to these. To date 1728 laptops have been provided to students on a loan basis, and data bundles are being provided to approximately 17000 students on a monthly basis. The logistics and communication to enable the laptops and data for students were challenging, and again showed the value of excellent

cooperation between the Divisions of the Vice-Rector Learning and Teaching, and the Chief Operating Officer.

The IT Division has arranged for CellC, MTN, Telkom and Vodacom to zero-rate the data to several critical on-campus services, such as SUNLearn. This zero-rating means students do not incur costs when using SUNLearn via mobile data – whether learning or writing exams.

An extraordinary effort was made in a short time by amongst others, IT, the Centre for Learning and Teaching, Scheduling Office and blended learning co-ordinators into ensuring that the mid-year exams could proceed despite lockdown, switching from mostly paper-based to fully online.

The preparations included:

- Establishing a dedicated high-priority service desk channel and telephone line for exams,
- On the advice and recommendation of lecturers, revising the exam schedule to stagger the starting times by 15 minutes to reduce the impact on the system,
- Allowing 30 minutes extra time for exam submissions to counter any potential technical issues with submitting the assessments,
- Load testing and optimising the SUNLearn system to cope with the increased load,
- Preparing an Outlook calendar of exam times, for information purposes, for coordinating support and for predicting load on the systems.

A word of appreciation is also due to the lecturers, who in a very short time had to convert courses and exams to this emergency fully online mode. Almost everybody had to sacrifice their Easter holidays to get ready for teaching and examination during lockdown.

Support collaboration by IT, CT and the CUA's to service students and lecturers during the lockdown

Providing an e-Learning support service to the Stellenbosch University is no simple task; it requires coordination between the role players in different responsibility centres.

In essence, it is a type of distributed IT service offered by the IT Division, Centre for Learning Technologies, the computer user areas as well as the library. Until recently, the cooperation has mostly been managed with informal structures to coordinate daily operations, as well as on management level.

During 2019, a new service desk system was launched, to ensure that all user requests, projects and incidents are handled smoothly and can be tracked. The system provides a single point of entry, but within this, the type of enquiry is delineated and directed to the appropriate service desk of the CLT, CUA, Library or IT.

Learning Technology related requests are submitted via Learnhelp.sun.ac.za, the Learning Technologies Support desk.

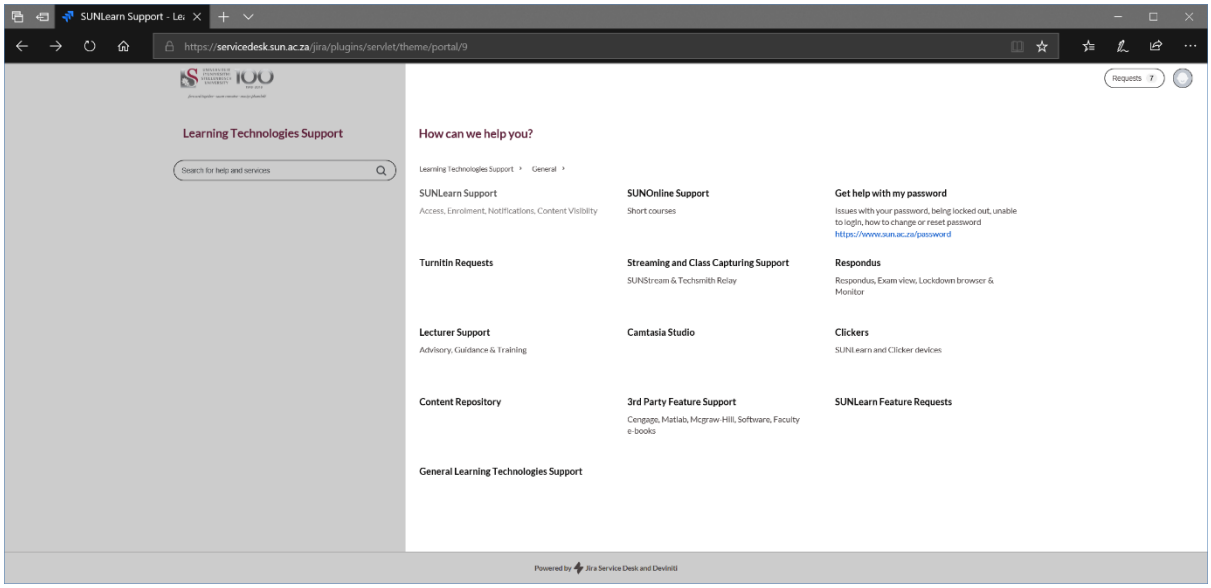


Figure 92: *SUNLearn support desk*

If the problem is of a technical nature, such as where there is an infrastructure problem, the issue is escalated to the ICT service desk. Within IT, problems can also be further escalated to the appropriate operations team. During this entire process, IT tracks the progress, and the person who submitted the problem can follow the progress. The service desk adheres to ITIL standards and ensures that responsibilities between the service desks and departments are clearly defined, as shown by the levels 1 to 3 in the diagram below:

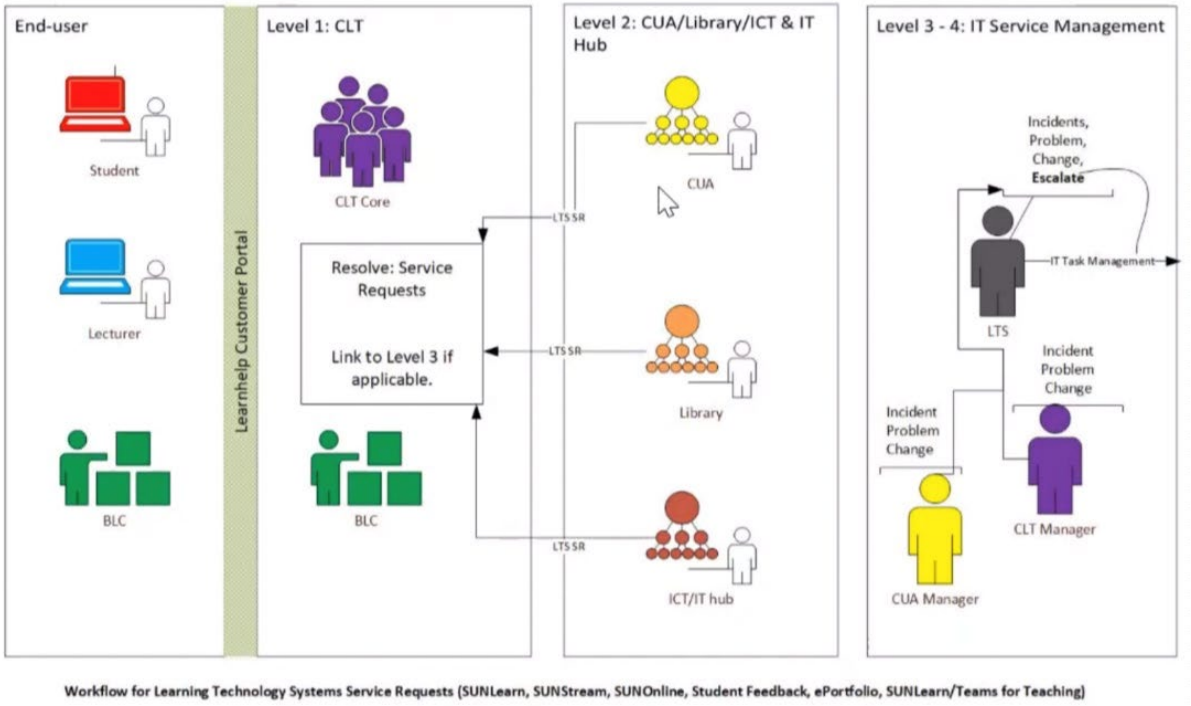


Figure 93: *Workflow for Learning Technology Systems service requests*

The biggest hurdle was to expand the service desk staff levels to handle the sudden drastic increase in online learning as illustrated in the graph below.

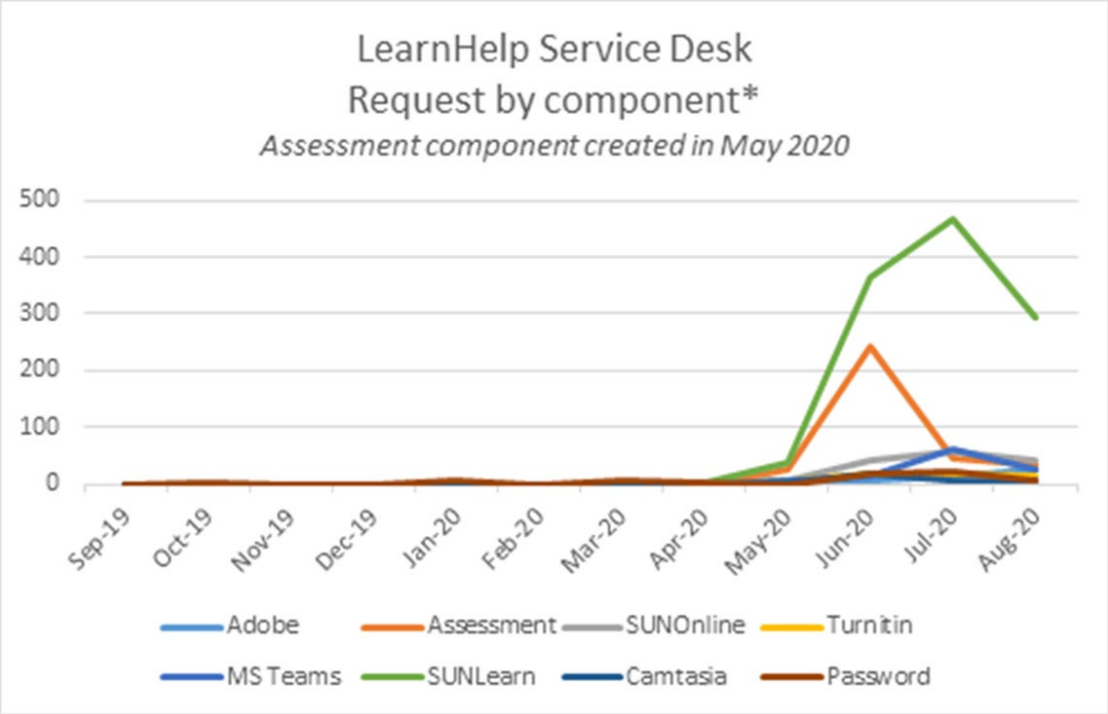


Figure 94: *Growth in enquiries at the SUNLearn service desk.*

Many options were explored, but since it would have taken too long to onboard and train new appointments, the decision was made to rather use existing capacity with re-assigned responsibilities. All available resources from the CUAs and Library were assigned to help on the CLT service desk in an expanded team, as an emergency measure.

Many of these staff members could be freed up because their duties had changed with the drop in face-to-face learning. In total, the service desk staff has been increased from four members to more than 22 members; there are 59 agents registered on the CLT service desk (see graph below). These expanded service desk team members can still fulfil their role in their home department; they can for example work on both the CLT service desk as well as the CUA service desk, depending on the nature of an enquiry.

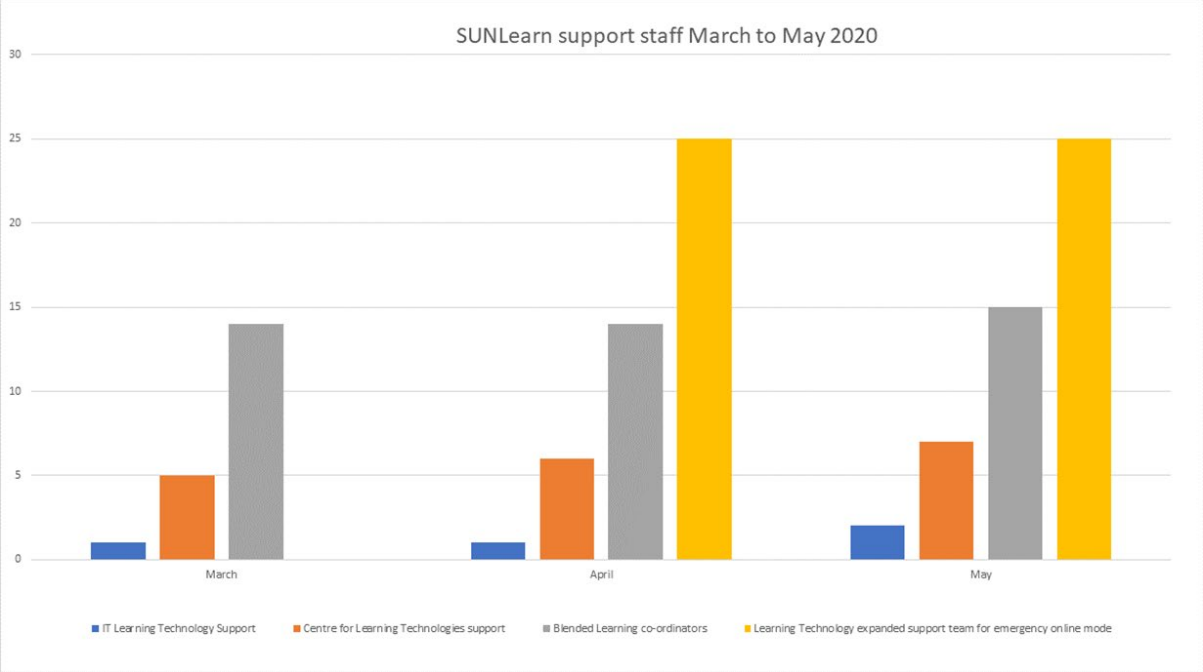


Figure 95: *Growth in staff numbers (especially the extended support team).*

- Although the above was the focus, other Learning Technology achievements through facilitation, advisory services and relationship management were:

- Student Feedback went fully online from 1 January, allowing for a seamless shift once the COVID-19 pandemic hit the University.

- Upgrades to the Kenako booking system for the Language Centre are underway.
- The database CRM solution for SUNCEP Talent Development Programme has been completed.

- The team has begun technical testing of learning analytics, which should contribute to a better understanding of learning, as well as towards improving student success.

- Even though the spotlight was on learning and teaching, the Research Support team did equally well, assisting SU researchers as well as the Division for Research Development, SU International and the Social Impact Division in working online. The team can report the following:

    - Hamilton BiOS: The IT Division collaborated with the FMHS Biorepository Laboratory team to integrate the Hamilton BiOS into the SU ICT ecology by way of the BiOS management software, INSTINCT S. This system provides a robotics automated system to store and retrieve biomedical samples and replaces many old nitrogen refrigerant freezers.

    - Research contracts integrated reporting: The IT Division continued its collaboration with the DRD Research Contracts team and SU augmentation partner iOCO on the design and development of a research contracts system

phase 2: integrated reporting capability. The first phase, which is the core of the Research contract system, is in production and of great value to the University.

- SAURAN: The IT Division coordinated the development of an application for Centre for Renewable and Sustainable Energy Studies (CRSES) to make solar radiometric data available from stations located across the Southern African region.

- GEMS: The IT Divisions partnered with the Department of Agricultural Economics to implement an instance of GEMS - a "system ... to support and functionally integrate spatially and temporally distributed genomic, environmental, management, and socioeconomic data in a single integrated platform" - at SU.

- The IT Division partnered with SU International to select an implementation partner by way of RFP for the envisaged InterInfo solution.

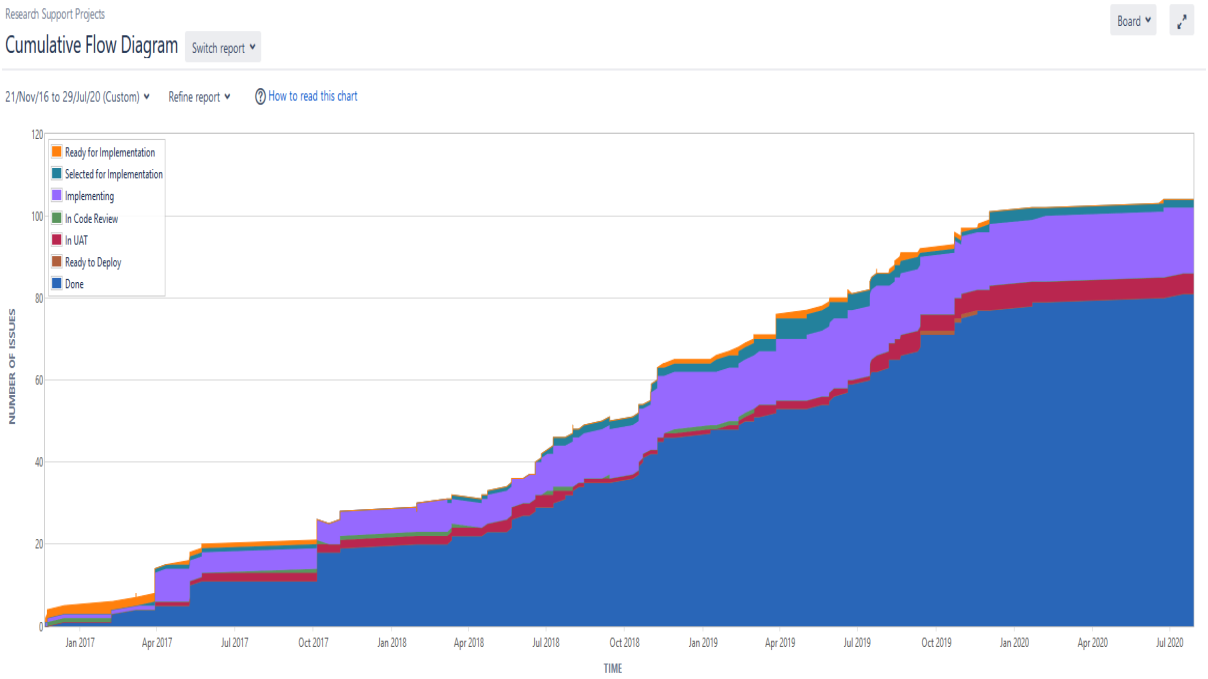


Figure 96: *Cumulative total of completed ICT for research projects from January 2017 to December 2019: This graph illustrates the steady trend of growing number of ICT projects (issues in Service Management) completed in support of Researchers at Stellenbosch University. This support team is quite small, but is delivering a satisfactory stream of support projects.*

4.3.1.11 Infrastructure services

4.3.1.11.1 Identity and access management systems renewal project

Identity and Access Management (IAM) is a core element of any sound security program. IAM touches virtually every end-user, numerous business processes as well as every IT application and infrastructure component. As such, successful projects require input and cooperation from many internal groups, an effort that can be difficult to organise. IAM

projects require a thorough understanding of the organisation's current business strategy and security posture, along with a clear vision of the desired security state and the necessary steps to get there.

As data, access, and networks continue to expand; the University has an ever-increasing need to manage users' identities and access. The optimum solution for this function is a well-planned and institution-wide identity and access management (IAM) program or framework. Identity and Access Management (IAM) is the broad set of policies, processes, and technology used to manage digital identity information and to provide these identities with access to approved electronic resources when they need that access. In its simplest form, IAM ensures that only the right people can access the right resources and data at the right time.

Stellenbosch University is faced with the challenge of simultaneously providing greater security for its digital assets and computer systems while providing a greater and more varied range of services. The digital environment is changing fast, and the COVID-19 pandemic has accelerated the need for a much more flexible environment. The bulk of the University's current IAM services were designed and implemented over the years as part of the operational activities of Information Technology. Although this infrastructure has been enhanced over time, these improvements have been implemented in a piecemeal manner. As a result, the University's current IAM infrastructure is increasingly unable to quickly adapt to evolving campus requirements, for example, cloud applications and a strategy of digitalisation. The University needs to establish an overall strategy designed to address campus IAM needs using a coordinated, holistic approach and ensuring good governance.

The objective is to develop a roadmap to implement comprehensive IAM services to encourage collaboration, facilitate stakeholder engagement, and support online interactions with the variety of users while maintaining the security and integrity of the University's digital assets.

4.3.1.11.1 The IAM renewal programme schedule

An RFP to appoint a business partner to help the IT Division develop the IAM programme is expected to be issued in the next few weeks. The immediate next phase will be to schedule and execute the implementation of the different projects arising from the IAM programme. The project timeframe will be three to four years. Urgent functions required for current projects (e.g. SUNFin and SUNStudent) will be expedited and implemented as needed.