

SUNStudent Project Update to SU Council

April 2024

- **SUNStudent Background**
 - Context
 - Change drivers
 - Timeline and Go/No-Go Motivation
- **Registration 2024 Post Go-live report**
 - Review
 - Tracked Issues Overview
- **Project Progress**
 - Current Status
 - Key Risks and Issues
- **Immediate Areas of Focus for SUNStudent**

Risks driving the change

- Ageing platform & technology (Natural/Adabas)
- Difficulty of integrating with other systems from Legacy
- Knowledge embedded in key staff – retirement
- Scarce and expensive programming Natural/Adabas skills (European-based)

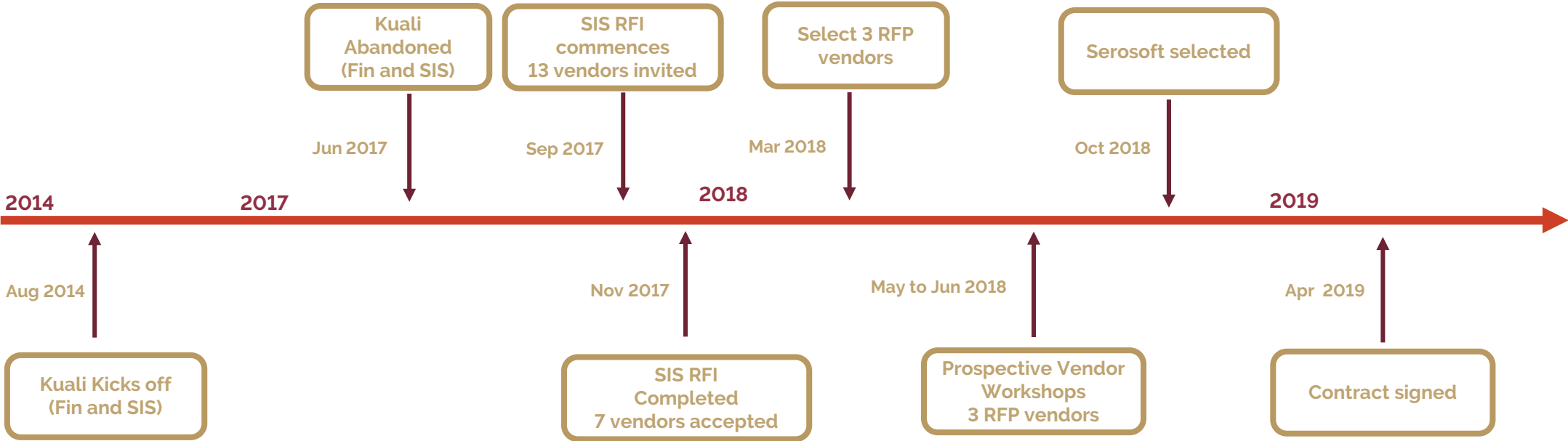
Renewal Drivers / Needs

- Broadening of access and student-centred
- Cater for non-traditional courses & programmes, semesters & quarters, **flexibility** in academic offering
- **User defined reporting** and analytics

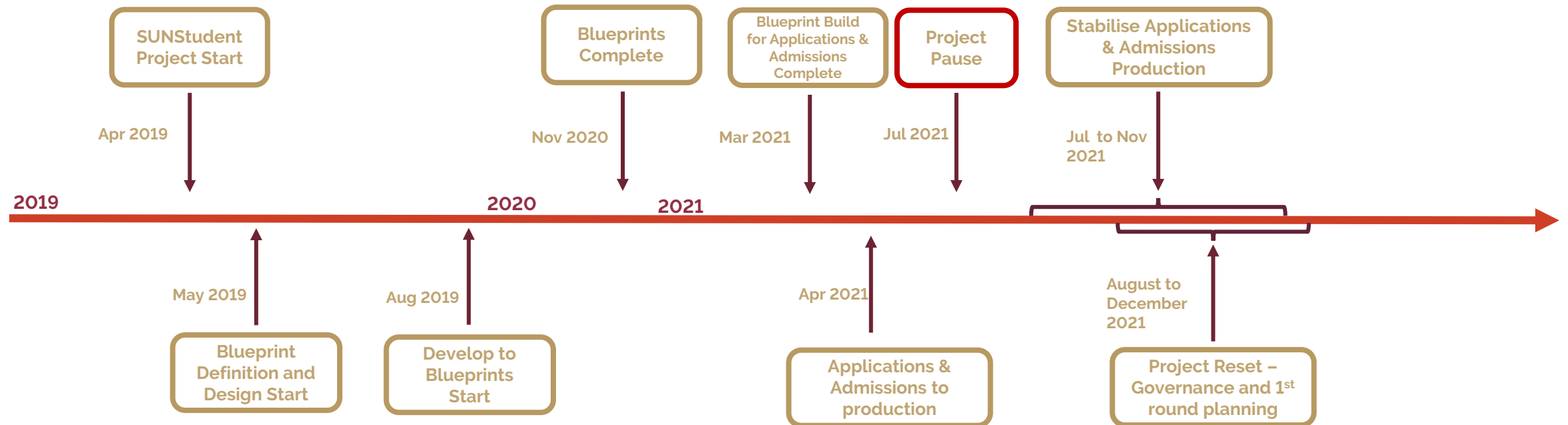
Modern technology

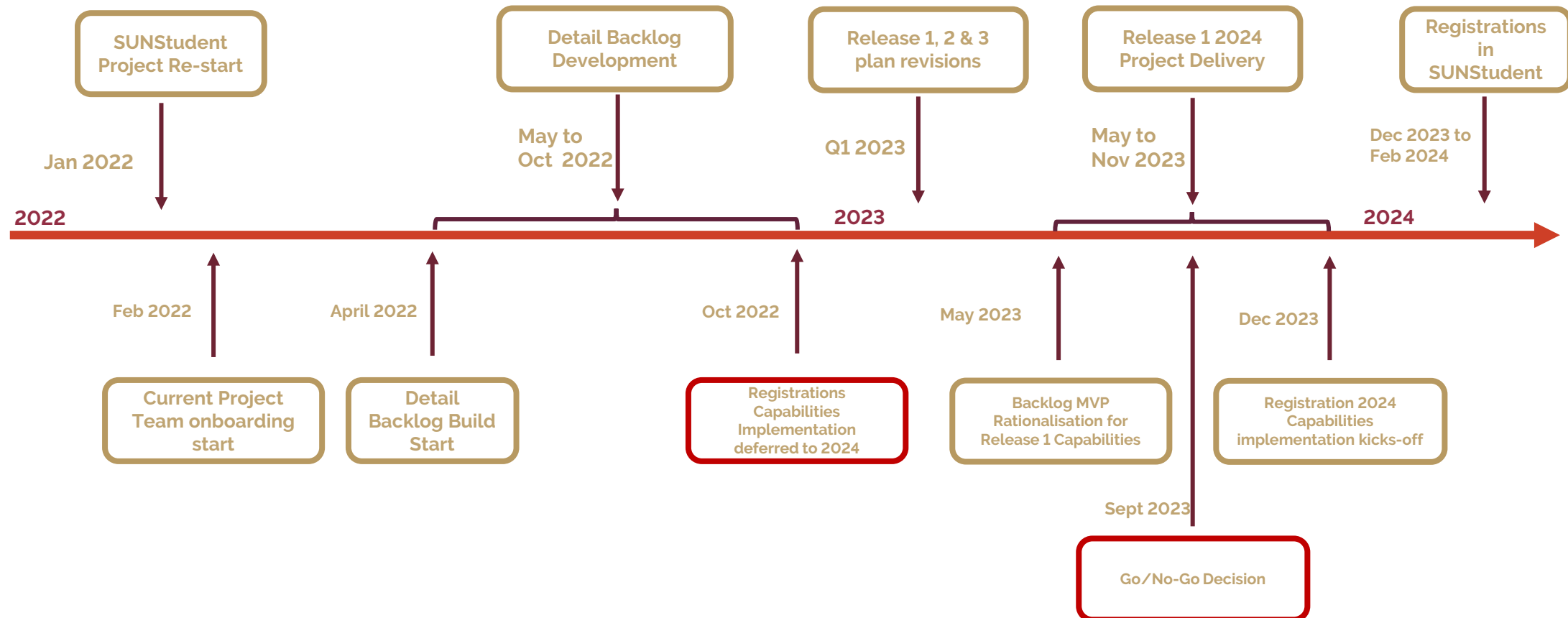
- On premises vs cloud-based
 - Cost benefit of infrastructure and software licensing
 - Available, scalable, maintainable
- Bespoke "old tech" vs Software as a Service (SaaS) built on new technology
 - New (always current) technology, better architecture, regular updates, relational database

Student administration systems renewal process and history.



Oct 2018





Several dimensions were considered to arrive at a recommendation for a go/no-go decision, these included:

- Project status and progress against timeline – Green at the time
- Advisory feedback and opinion (PwC due diligence and Deloitte input)
- Risk-based approach assessment (i.e. what are the risks and impacts of going live vs not going live) considering dimensions such as:
 - Institutional risk
 - Systemic risks of current legacy system
 - Data Migration
 - IT and technology risk
 - Cost risk

Point of no return set on 28 September 2023

The point of no return marked the date where a feasible roll-back could still be implemented. Beyond this date a full commitment to the capabilities earmarked for Registration 2024 was implied, with no roll-back possible. As of the date the project status (including completed development, testing and number of outstanding defects) were deemed to be acceptable to recommend a go decision.

The risks and impacts for a **Go**-decision include amongst others:

Institutional and Implementation risk

- Reputational risk if an unforeseen event that impacts Registrations 2024 is experienced
- Staff not fully trained to manage new business processes and work activities
- All stakeholders are not fully informed of the extent and gravity of the change (i.e., expected implementation stress is not understood)
- Guardrails are not put in place to manage the go-live and transition event (Dec 2023 to mid-February 2024)
- Testing not comprehensive enough to ensure expected operational functionality and integrity of financial transactions to-and-from SUNStudent
- The necessary staff to support the go-live is not available at specific times during from November 2023 to February 2024.

Cost risk

- Unforeseen costs to establish guardrails to ensure business continuity
- Unforeseen/non-budgeted costs to complete the implementation

IT and technology risk

- No capacity to expend on Plan B if commitment to a Go decision is obtained

Data Migration

- Data provision timelines are not adhered to may impact timely introduction of key capabilities
- Serosoft unable to turn around the ETL process to SUNStudent in reasonable time

Systemic risks of current legacy system

- Difference in data file structures may cause data load discrepancies/data mis-matches in SUNStudent
- Legacy SiS needs to be maintained until such time data is fully archived

 **Very High**

 **Medium**

 **High**

 **Very High**

 **High**

Mitigated through

- Complete as per plan
- Ensure data migration plan is adhered to
- Exact stakeholder communication
- Execute Training as per plan
- Ensure high testing coverage
- Data migration is 100% comprehensive and fully validated
- Successful "pilot" of Stellenbosch Business School and selected PGM registrations early December 2024
- Comprehensive and complete business operational readiness framework in place
- Agree minimum criteria for business continuity.

The risks and impacts of **No-Go** decision (irrespective of deferment or abandoning) include:

Institutional risk

- Reputational (internal and external) risk if the project is delayed/abandoned
- Staff fatigue due to re-adoption of old processes and work activities
- SiS replacement process starts anew – could take up to 10 years to commence

Current project implementation risk

- Loss of project implementation knowledge as project staff roll off
- Loss of updated/new business processes aimed to kickstart move to operational efficiency

Cost risk

- Extending the cost of implementation to cover off another year of implementation if delayed
- Sunk cost of implementation to date
- Project closure costs
- Increase in costs to maintain Legacy environment (migrating back to "on-prem")
- Increased Software AG support and maintenance costs
- Possible upgrade/replacement of on prem infrastructure to cope with increasing volume

IT and technology risk

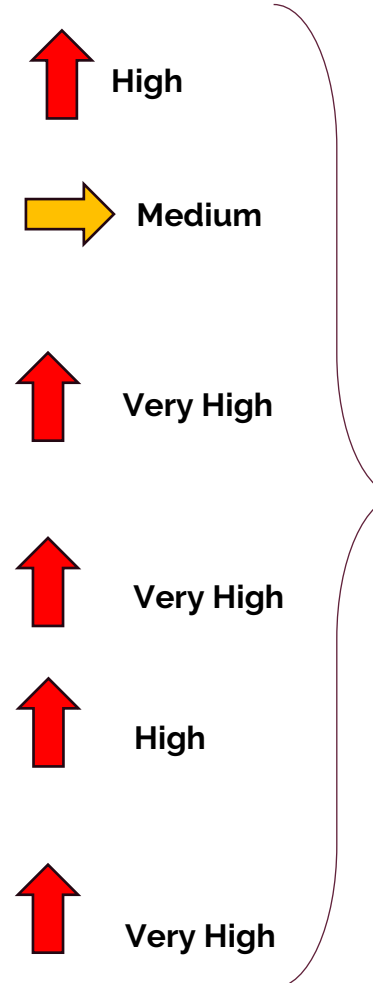
- No capacity to expend on Plan B if commitment to a Go decision is obtained

Integration

- Possibility of newly required integration to amongst others SUNFin
- Integration of live SUNStudent capabilities to existing systems

Systemic risks of current legacy system

- Declining efficacy and operational stability of legacy SiS may impact business continuity
- Legacy SiS configuration and business readiness not implemented completely resulting in a difficult registration period (as 2023 proved)
- Assessment policy functionality delayed by at least a year to configure this functionality on Legacy SiS
- Gradual erosion of business systems operational knowledge on Legacy SiS due to natural staff attrition



Mitigated through

- Dedicated focus from Q4 2023 onwards to set-up Legacy SiS for Registrations 2024
- Clearly defined motivation for deferment to all stakeholders
- Expand SSC support capacity
- Redirection of project funds to:
 - Increased infrastructure spend
 - Increased resource spend (Natural team capacity)
 - Increased support and maintenance spend with Software AG

NOTE: Abandoning compounds risks over time

Preparing for Registration 2024 – A Review

- From October 2023, the SUNStudent project focus shifted to **preparations for the registration** for the 2024 intake.
- Several **engagement sessions and communications** to stakeholder groups, including two town-hall sessions on 27 October and 10 November 2023, respectively.
- Information on the **support model** for the extended go-live timeframe to enable users to access assistance where required.
- In addition to the information on the registration website, students received regular **registration updates** via email.
- Registration commenced for the Stellenbosch Business School and the School for Public Leadership on 4 December 2023, followed by the Faculty of Medicine and Health Sciences on 2 January 2024.
- Online self-registration opened on 15 January 2024 and on-campus in-person registrations kicked-off on 29 January.

Multiple capabilities launched simultaneously, and same-day final offer issuance implemented

- Same-day issuance of final offers during 2024
- Final offer acceptance quicker, with approximately 3300 acceptances within the first day
- Simultaneous launch of several capabilities including Registrations; Student Fees; Residence Management, Student Services Fees (meal bookings and printing quotas); Financial Aid and Scheduling (group allocations).

Registration challenges

- Despite systems functional and user testing in late 2023 and into January, the transition was extremely challenging.
- The complexity and multi-faceted capabilities deployed for the first time across all faculties and academic programmes resulted in registration delays and inaccuracies, which had a severely negative impact on all the other capabilities reliant on registration data.
- The approach to deliver a minimum viable product (MVP) caused further frustration with certain functionalities not being available yet or work-arounds being required.

forward together
sonke siya phambili
saam vorentoe

Final Registration Report: Newcomer First-year

Overview of 2024 newcomer first-year enrolments at the conclusion of the Final registration period in comparison to targets and previous years

FirstTimeEntry

First Time Entry Student

Snapshot

Final Reg

Faculty

All

Report developed by

L Kistner and C Kroon, Centre for Business Intelligence
26 February 2024

Privacy notice

Stellenbosch University is committed to protecting the privacy of our employees and students in line with South African legislation, global leading practices, and our commitment to good institutional governance. The information presented here is for management and statistical reporting purposes only. For further guidance on realising the right to privacy, visit: <http://www.sun.ac.za/english/InformationGovernance/governance>

Copyright notice

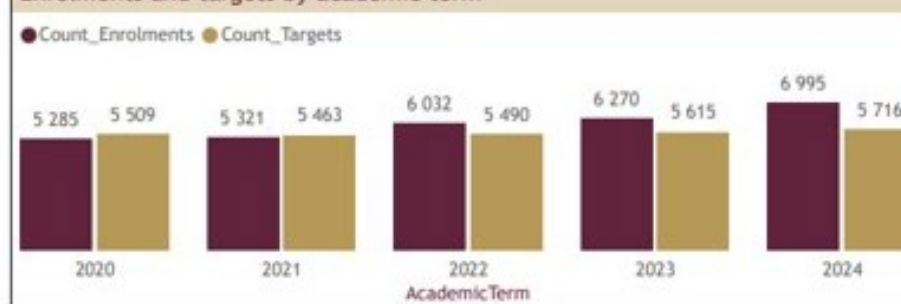
This document is prepared for internal use only, subject to Stellenbosch University Policies, Regulations and Procedures.

© 2024 Centre for Business Intelligence, Stellenbosch University. All rights Reserved.

Enrolments and targets by academic term

AcademicTerm	Count_Enrolments	Count_Targets	Diff_EnrolTarget	%Diff_EnrolTarget
2020	5 285	5 509	-224	-4.1%
2021	5 321	5 463	-142	-2.6%
2022	6 032	5 490	542	9.9%
2023	6 270	5 615	655	11.7%
2024	6 995	5 716	1 279	22.4%

Enrolments and targets by academic term



The **targets** refer to the June enrolment targets. Please note that the enrolment targets are based on statistics obtained in June, which implies that an accurate comparison between the targets and actual enrolment figures will only be possible at that stage. Late enrolments and/or cancellations and drop-outs may still occur.

Final Registration Report: Undergraduate

Overview of 2024 undergraduate enrolments at the conclusion of the Final registration period in comparison to targets and previous years

FirstTimeEntry

▼

All

▼

Snapshot

▼

Final Reg

▼

Faculty

▼

All

▼

Report developed by

L Kistner and C Kroon, Centre for Business Intelligence

26 February 2024

Privacy notice

Stellenbosch University is committed to protecting the privacy of our employees and students in line with South African legislation, global leading practices, and our commitment to good institutional governance. The information presented here is for management and statistical reporting purposes only. For further guidance on realising the right to privacy, visit: <http://www.sun.ac.za/english/InformationGovernance/governance>

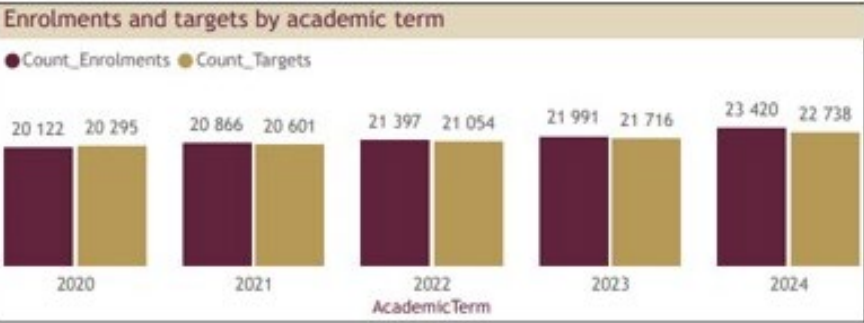
Copyright notice

This document is prepared for internal use only, subject to Stellenbosch University Policies, Regulations and Procedures.

© 2024 Centre for Business Intelligence, Stellenbosch University. All rights Reserved.

Enrolments vs Targets 5-year trend

AcademicTerm	Count_Enrolments	Count_Targets	Diff_EnrolTarget	%Diff_EnrolTarget
2020	20 122	20 295	-173	-0.9%
2021	20 866	20 601	265	1.3%
2022	21 397	21 054	343	1.6%
2023	21 991	21 716	275	1.3%
2024	23 420	22 738	682	3.0%



The number of undergraduate enrolments are determined annually by the number of newcomer first-years and the retention and throughput rates of the previous cohorts. For enrolment planning, the number of undergraduate enrolments by faculty and population group are projected for future intakes, but are not considered as set and agreed upon targets (as in the case of newcomer first-years).

The targets refer to the June enrolment targets. Please note that the enrolment targets are based on statistics obtained in June, which implies that an accurate comparison between the targets and actual enrolment figures will only be possible at that stage. Late enrolments and/or cancellations and drop-outs may still occur.

Summary of tracked post go-live issues – Registrations 2024

ISSUES AND CATEGORIES	STATUS
Log-in screen 'hanging' or buffering	The main cause is due to integration issues between the SU identity management system and SUNStudent. Log-in issues have been mostly resolved, with further changes pending in the SU identity management system to fully resolve student access and provisioning issues. Students with recurring individual issues should send an email to info@sun.ac.za
Browsers	Although Google Chrome is recommended, all browsers can now be used, including Safari on Apple mobile devices.
Module selection: screen is 'hanging' or buffering; module list not visible to student on the portal; module list incomplete or incorrect. Linked to module selection, incorrect module credits also prevented some students from registering.	This issue was mostly limited to returning students rather than new entrants as first-year modules are more structured without multiple exceptions. The overarching system issue was mostly resolved by updating module data. Remaining issues do not have a common thread being resolved individually. Students with complex module combinations for various reasons made use of assisted registration in NARGA. Selected cases are still being addressed by the SSC post registration.
Dual profiles preventing log in: students with both a studentnumber@sun.ac.za and a name@sun.ac.za email address; and staff members who have both a staff and a student email address.	The project team managed to decrease the number of multiple accounts/log-ins, but the issue has not been resolved completely. Selected students who are also staff are not currently able to log in on more than one profile at the same time. Staff members are advised to create a temporary student log-in to gain access to the student portal but will be able to receive both staff and student communication to their official SU email address.
Financial and academic holds and blocks	Despite initiatives to resolve issues (e.g. lifting financial blocks for students with NSFAS funding) holds and blocks continued to impact the registration process. The finance team can lift blocks where required and have been doing so on an individual basis where it still occurs.
Postgraduate registration issues	Bulk admissions for postgraduate students have solved many of the challenges. Students with persisting registration issues were given access to SUNLearn to enable them to start their academic year, while the Admin, SSC and Sersoft team attend to these students' registration requirements.
Proof of registration	The period between completion of registration and receiving proof of registration has been greatly reduced. Initially there were delays in sending the proof or registration confirmations resulting in several students arriving in person to confirm their registrations. This matter (queuing of registrations e-confirmations in the system) has been resolved.
Registration: Military Science	Bulk admissions have been completed for the Faculty of Military Science, rather than having the faculty administrator do this individually per every student.

Summary of tracked post go-live issues – Registrations 2024

ISSUES AND CATEGORIES	STATUS
Master's and doctoral students	A <u>digitised registration form</u> was created for new and returning master's and doctoral students as an interim measure. Upon submission, the forms will be processed within two business days, and on completion of the registration process, students will receive proof of registration via email. This group of students and faculty administrators received <u>communication</u> in this regard which aided in the enrolment of post-graduate students.
Financial Aid/Bursaries (Fin-Aid)	3 defect resolution fixes were promoted to the Production (operational SUNStudent software instance) environment and tested by the bursaries team end of February. The bursaries team have distributed the necessary guides with respect to issuing bursaries. NSFAS allocations and disbursements have been bulk uploaded to aid the throughput of NSFAS disbursements to students.
Student Account Statements	Account detail and data did not pull through from the student registration records to correctly reflect selected module list enrolments, impacting in some cases the correctness on student accounts and statement. Several emergency fixes have been applied to rectify this and work is ongoing to address outlier cases where account statements are not correctly constituted
Multi-factor authentication (MFA) by way of the Microsoft Authenticator application	Although unrelated to SUNStudent or registration, MFA had a noticeable impact during the early days of registration. The issue was resolved through information on the registration website, student communiqués and social media messages on how to install MS Authenticator and use the MFA application.
Pre-registration application forms	These forms were printed for students who registered in person (and need to review and agree their module lists with Faculty staff). It aided in resolving module list and subject confirmation for registration.

- Release 1 capabilities promoted to production during the past three months include:
 - Registrations (including Hold & Blocks)
 - Student Fees
 - Services Fees (meal bookings and printing quotas)
 - Financial Aid/Bursaries
 - Residence Management
 - Scheduling (group allocations)
- Future release 1 capabilities coming on stream in April and May include Student Assessments, Postgraduate Management and Societies & Sport Clubs Management
- System functional testing underway for Textbooks Ordering, Student Discipline and Release 1 v2 capabilities.
- Functional showcases kicked off for Exam Management and Exam Concessions.
- Internal Audit conducting data integrity checks for migration of next iterations of the Academic Master loads being prepared.
- Project re-scoping concluded on 2 April with focus on enabling student lifecycle milestones through Academia and alternate solutions where appropriate



Red rated risks mitigated since last ARC report (October 2023)

Risk ID	Risk Description	Movement	Key actions to mitigate	Resp	Due
SUNS-103	Lack of clearly defined system roles and associated permissions and User account management practices	Mitigated	<p>The lack of clearly defined system roles and associated permissions in SUNStudent may result in unauthorized access / transactions and ineffective segregation of duties.</p> <p>Users across the board were requested to submit user role profile requirements which were mostly provided by go-live. Subsequent request are being managed on a BAU operational request basis through service management</p>	Maryke Burnett	30/11/2023
SUNS-541	Registration module group information impact on e-registration	Mitigated	<p>This requirement is needed for e-registration to be successful. The requirements were developed and showcased and will be thoroughly tested as part of test scenarios during the UAT stages.</p> <p>This risk will be addressed during the scheduled UAT ending on 28 Sep 2023. UAT completed to ensure go-live date of 4 December was met.</p>	Gavin Nimmo	28/09/2023
SUNS-1319	Current burn down rate might affect delivery of remaining backlog for Jan 2024	Mitigated	<p>When looking at the historical burn down rate and using that as baseline to review the possibility of completing the remaining tickets until 22 Sept there is a risk that all tickets may not be completed by Serosoft before the build to be complete due date. Required backlog was burned down with sufficient time to conduct testing.</p>	Mpho Fakude	28/09/23
SUNS-1439	Defect -Test Environment: instance not ready for UAT to continue	Mitigated	<p>There is a risk that the SU Test environment will not be ready for UAT due to delays in getting the SU Dev environment ready and fixing the minimum defects so that it can be released for the scheduled UAT dates starting in week of 4 September and applies to subsequent UAT cycles during October 2023.</p> <p>Test environment was ready to execute both SFT and UAT.</p>	Carina Smit	06/10/2023

Red rated risks on project risk register (Current)

Risk ID	Risk Description	Movement	Key actions to mitigate	Resp	Due
SUNS-95	Serosoft internal capacity to deliver on both BAU and project requirements	➡	Serosoft indicated that additional capacity may be provided at significant additional cost to SU. Project team is looking to re-visit scope to mitigate resource constraints of Serosoft to free up resources to attend to delivery of critical path capability development.	Stefan de Beer	Ongoing
SUNS-99	Capacity of allocated project team members	➡	<ul style="list-style-type: none"> Confirmation of available budget to fully staff project organisation and backfill permanent staff as per the project staffing plan continues Continued monitoring of SU staff capacity Expansion of SSC capacity – 2 new members onboarded Additional test analyst onboarded Looking to onboard additional Business Analysts Ensuring Serosoft assigned the necessary staff to complete development in a timely manner – under commercial review 	Stefan de Beer	Ongoing
SUNS-2998	Operational BAU and Project activity not separated which may impact project delivery	➡	<ul style="list-style-type: none"> Initial process agreed and to be communicated to all stakeholders. Longer term definition of BAU structure and support to be initiated Serosoft their divided team into project delivery and BAU focus areas – SU project resources following similar logical divide between operational and project areas 	Gavin Nimmo	30/04/2024
SUNS-3000	Delayed support from vendor to resolve Release 1 post go-live issues	⬇	Incidents and issues tracked in JIRA – significant number of reported tickets have been closed during the post go-live support period and remaining matters will be managed in business as usual/operational service management process.	Kashief Abdullah	15/03/2024

Red rated risks on project risk register (Current)

RISK ID	RISK DESCRIPTION	MOVEMENT	ACTIONS	RISK OWNER	DUE
SUNS-3024	Data Migration Integrity Issues could lead to a variety of operational issues in SUNStudent Academia	 Risk realized Ref SUNS-3014 for issue resolution actions	<ul style="list-style-type: none"> The post-upload reconciliation process continues with full datasets. Where scope, capacity and cost permitting Internal Audit should be included on some additional audit reviews. In addition to the point above, it is proposed that when a dataset is provided to Serosoft for loading that they extract a sample of that data. The process to load the data should be demonstrated to SU, the DM Team and the Internal Auditors to understand the process Serosoft goes through to load the data. This will ensure that the process is verified, and any concerns may be identified and addressed. This is especially important for non-once-off data sets that SU will use in the future. Serosoft should dedicate a senior resource to focus on the data migration items. This resource should address the exceptions as soon as possible. Currently, there are several exceptions sent to be resolved with no action taken to address these. (An example is the incorrect Seat Type, NQF Levels, Academic Records). Access to the SUNStudent database tables should be provided to SU so that they can interrogate the data in the system and can write their own extract queries. The Auditors would then also be able to interrogate the data with more advanced tools. 	Kevin Lubbe	30/04/2024
SUNS-3325	If Data Audit and - corrections are not done by 22 April it could impact the validity of data required by Assessments, Exam management and Exam concessions		<ul style="list-style-type: none"> Agree team and actions to treat and mitigate this risk (3 April 2024) - Done Ashmind and team to conclude Registration audit (12 April) IA assurance on data migration practices to conclude, data remediation team and SSC to provide further remedial actions to resolve current data issues (17 April) Module list and student registration records to be corrected Serosoft to complete SUNREG-28 to enable audit report reconciliation to occur 	Kevin Lubbe	19/04/2023

The SUNStudent project revisited the entire scope of implementation to expand delivery capacity to focus on implementing crucial capabilities that will enable the student lifecycle. As such several capabilities will be deferred or descoped out of Academia, with the most likely candidates being capabilities that are not currently run on the legacy environment.

The team will explore alternative delivery methods and solutions to provide functions that will enhance the student lifecycle, but not necessarily core to it. There will be a couple of these capabilities that will be deployed outside of the Academia solution but still critical to the student lifecycle.

Priorities driving 2024 delivery

- Critical Path Focus – delivery of key capabilities of SUNStudent (Academia and other solutions) enabling the student lifecycle
- Data Integrity – data remediation (student golden record and module lists) prior to Assessments
- Defect fixes handling and BAU stabilisation of SUNStudent Academia functionality
- Enhancements of operational capabilities where critical

- **Critical Path Delivery**

- Revisit scope and plan going forward to further **optimise the delivery**
- **Reduce vendor dependency** with immediate effect – only critical pathway capabilities in SUNStudent, alternative solutions outside of the system for timeous and high-quality delivery, and improved user experience
- **Serosoft** to attend to project and business continuity matters **onsite in Stellenbosch**

- **Data Remediation**

- **Investigation by Deloitte** to highlight shortcomings, particularly in the extract from legacy and load of data into SUNStudent.
- Deloitte audit specifically focussed on **registration (module lists), student fees and account statements and bursary allocation and disbursements.**
- **Data remediation** with focused team to address all data issues in SUNStudent.

- **Capabilities in Production**

- Dedicated team to **fix operational issues** of recently deployed capabilities



Nkosi, Thank You, Baie Dankie

sunstudent@sun.ac.za