

SUNStudent feedback session

How we got to implement Academia and the way forward

19 September 2024

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Photo by Stefan Els

- **SUNStudent Background**
 - Context
 - Change drivers
 - Timeline
 - Vendor Selection Criteria
 - Governance
 - Go/No-Go Motivation
- **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)

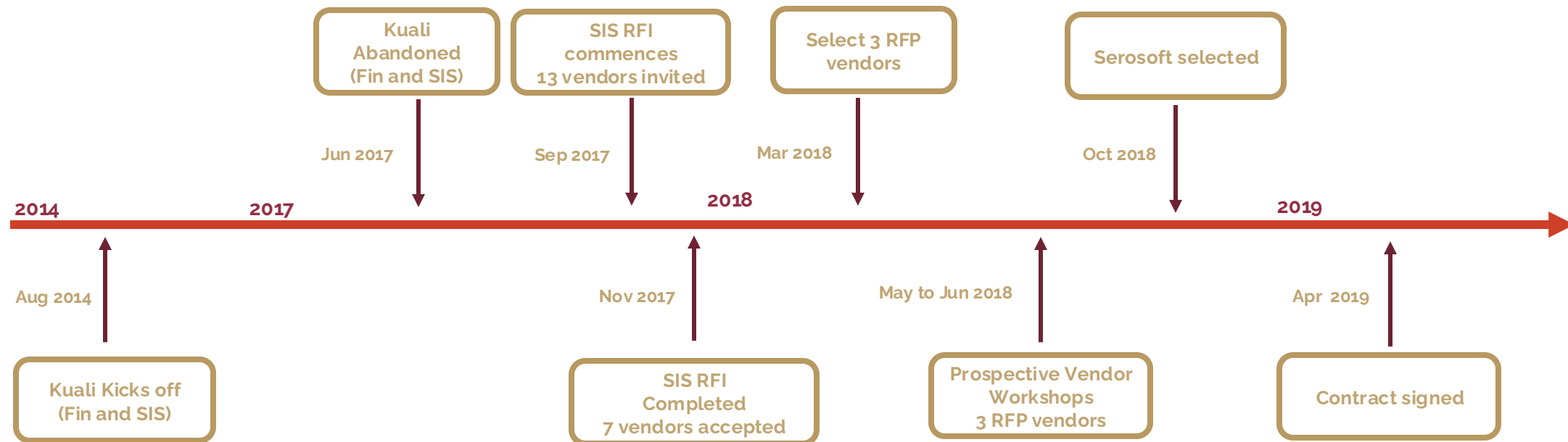
Renewal Drivers / Needs

- 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.

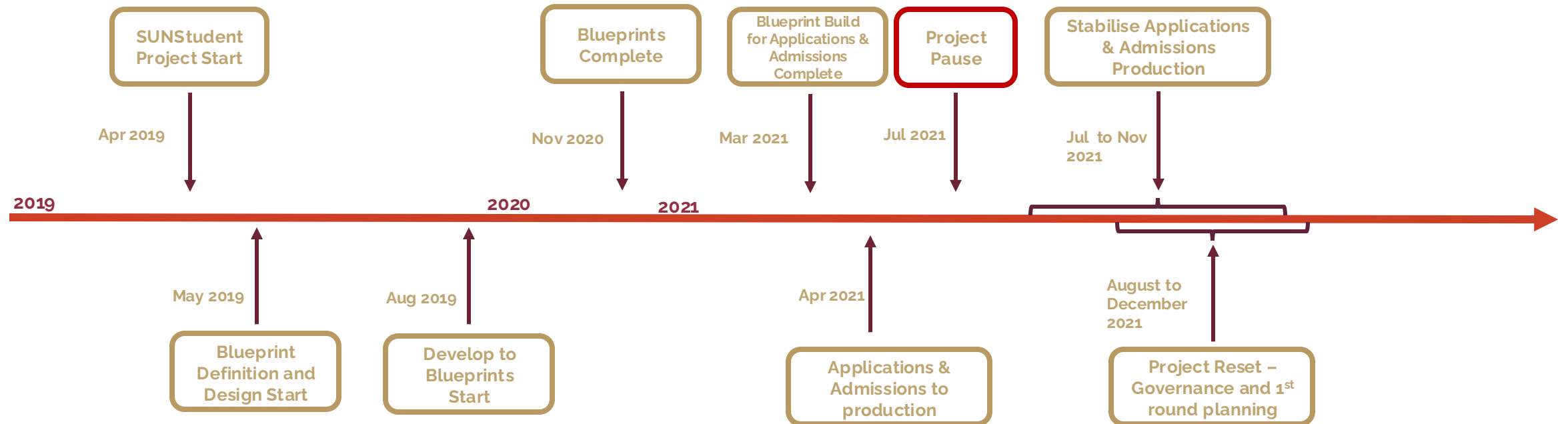


Providers were assessed against four key categories.

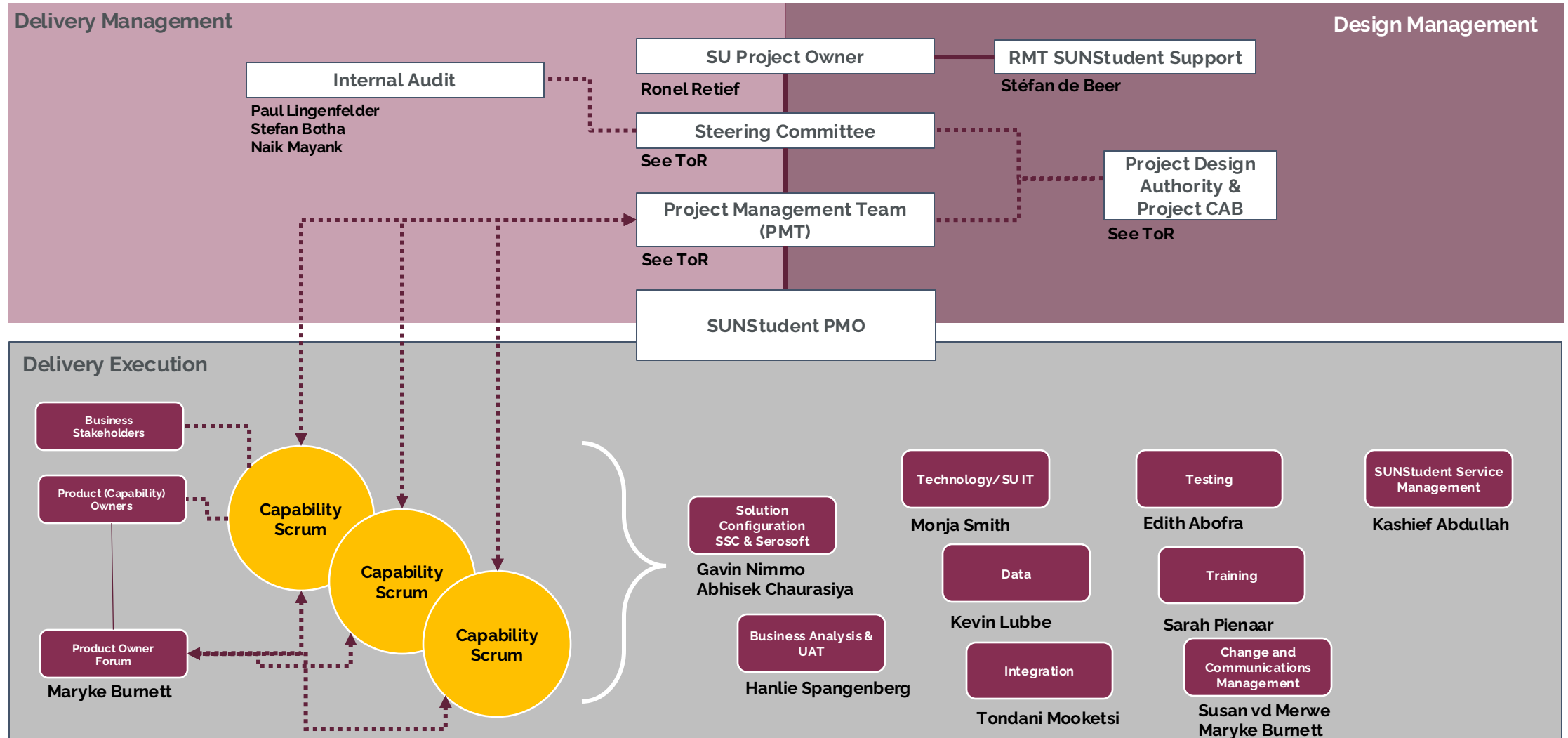
#	Criteria	Description	Weight
1	Functionality		50%
1.1	Functionality and functional fit (40%)	Considers the scope of functionality of the products and the extent to which they fit the functional requirements as requested by the RFP/tender documents. It uses, as major input, the assessments submitted by 250 functional stakeholders who attended RFP workshops with each vendor/partner. The functional requirements include core, or essential, functionality that SU requires for academic administration. The core functionality assessment was then moderated by assessments of the functional gap not met by the solutions, assessment of student centricity including leveraging of CRM capabilities, and assessment of the modernity and quality of the user experience	
1.2	Technical (10%)	Considers technical, technology and architectural attributes of the offer. If an unweighted score of less than 4 out of 10 is achieved, the proposal will be vetoed on technical grounds irrespective of the scores for other criteria. The following attributes are assessed: architectural approach and principles; design for performance and scalability; cloud readiness; integration capability; and configurability and extensibility.	
2	Total cost of ownership	Considers the cost of owning the solution over time (TCO). An investment in SUNStudent is an investment decision that is made for 10 to 20 years. For the purposes of fair comparison, the costs for each proposal were modelled for 10 years, based upon the best and final offers made by the proposers. The TCO considered four cost components to level the playing field: 1 - The direct cost of software licences and SaaS subscriptions over 10 years and the cost of implementation 2 - Organisational change management consultation. 3 - The direct cost of hardware and software infrastructure licences for on-premises implementations over 10 years 4 - The estimated cost of closing any functional gaps through the procurement of alternative point solutions.	30%
3	Project governance: Implementation partner capability and vendor sustainability	This criterion considers the capability of the implementation partner and the software vendor to deliver successfully, and the long-term sustainability of the software vendor.	10%
4	B-BBEE Compliance	The B-BBEE criterion was applied to the South African partners (Implementation partners representing the various software houses were assessed.	10%

PwC conducted an integrity due diligence on Serosoft as a legal trading entity, as well as company officers and senior management and supplied SU with a report dated 17 September 2018.

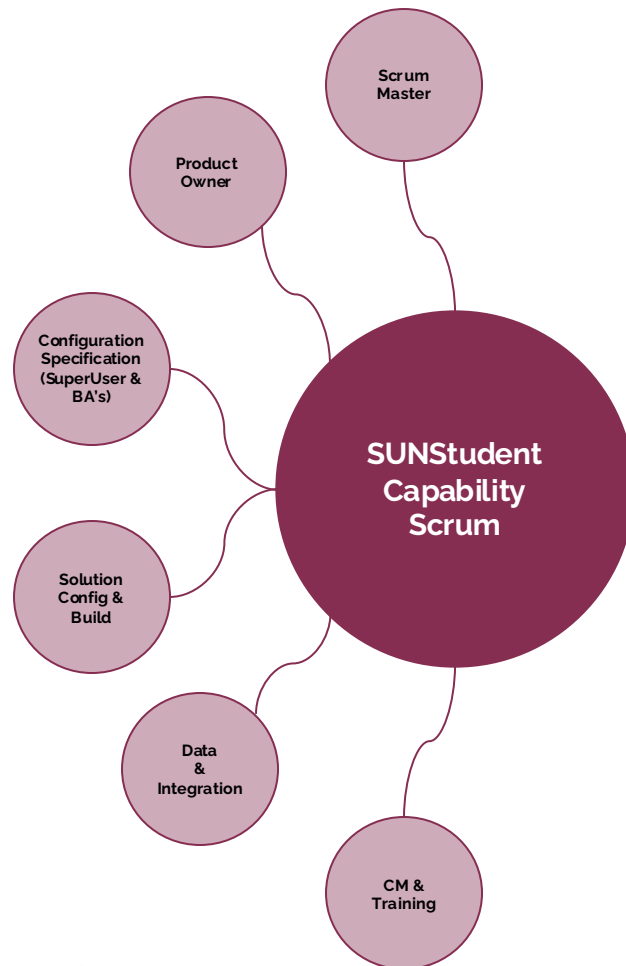
Oct 2018



The SUNStudent project team key roles are filled by the following team members



The project delivery capability is expressed in scrums which are constituted by several key functions and staffed from the different workstreams in the project structure.



SUNStudent Capability Scrum

- Drawn for project workstream and user teams
- Drives configuration of individual SUNStudent capabilities (Epics in JIRA)

Product Owner:

- Coordinates and owns the definition of the design and prioritises the backlog (tasks) of functions of the capability to be realised
- Ensures that the user requirements are expressed in such a way for the scrum team to deliver the capability

Scrum Master:

- Enables and facilitates the scrum to achieve realisation of a SUNStudent capability while exercising Agile values
- Manages the stand-ups and facilitates the framework within which the scrum team operates
- Reports progress and status of capability establishment to PMC

Super-Users:

- Provides input into the designs and user requirements.
- Assists with the authoring of the Blueprints and configuration specifications
- Assists with user acceptance testing end-user training

Business Analyst:

- Captures the core processes of the capability and authors the configuration specifications
- Assists with authoring of user acceptance testing scenarios

Solution Build Team:

- Configures and tests functions of the capability
- Prepares the product for handover to production

Data & Integration:

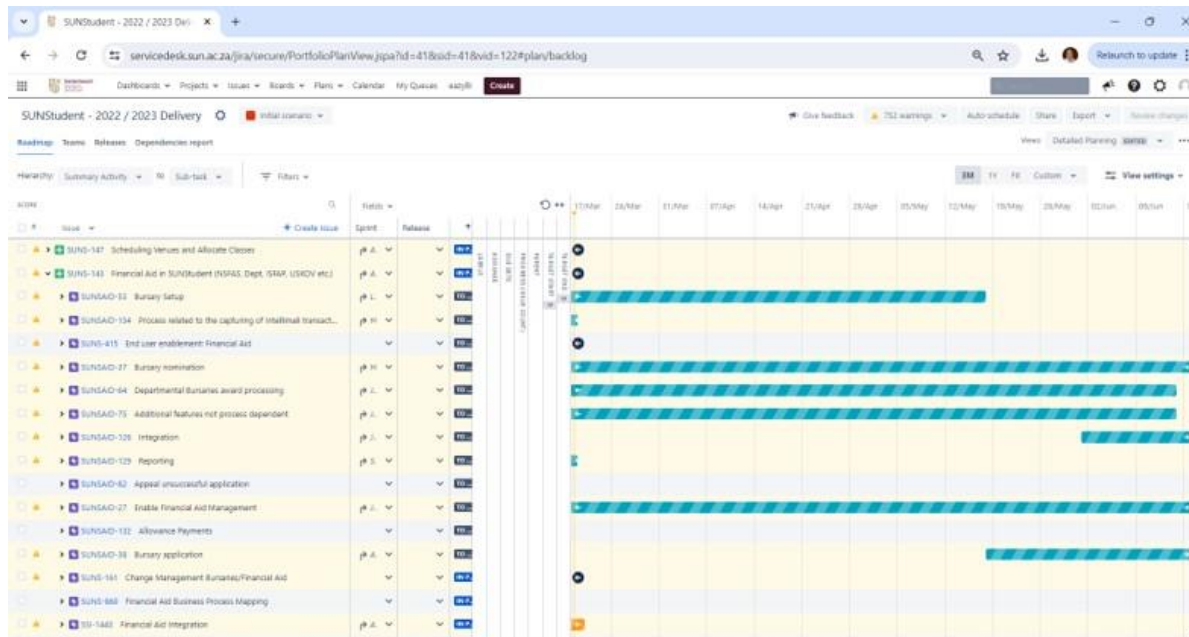
- Ensures that data requirements that support the particular SUNStudent capability are defined
- Defines integration methods and designs between SUNStudent capabilities and with other systems

Change Management & Training:

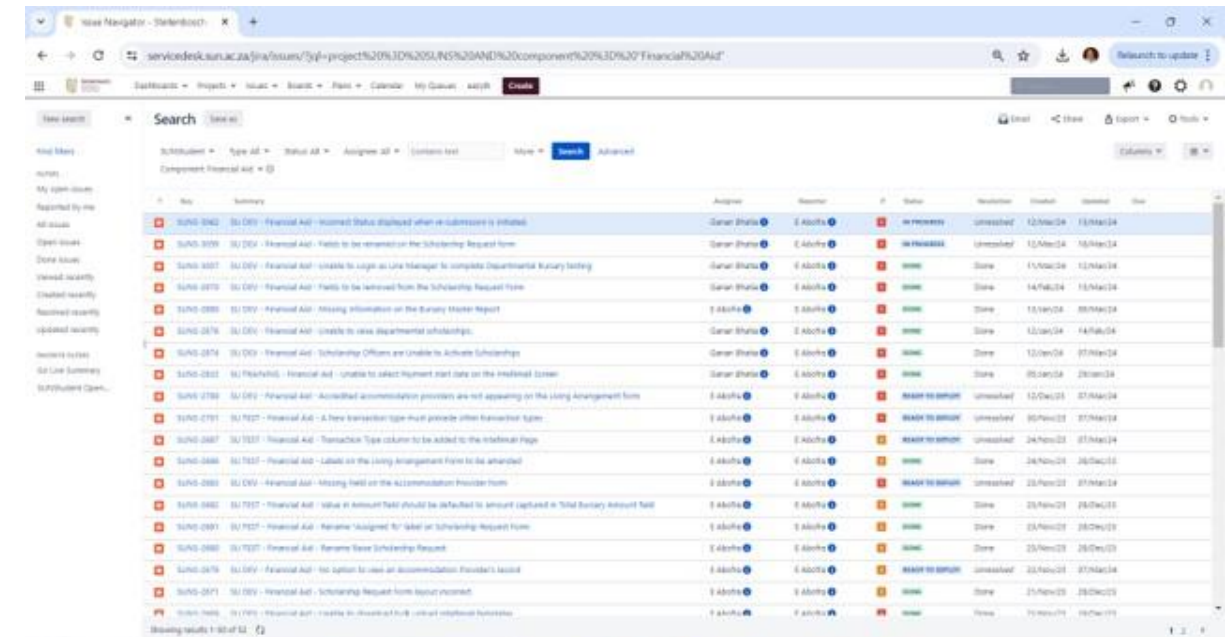
- Coordinates training of super- and end-users
- Ensures training material is available
- Manages transition to new ways of working and adoption of new processes by end-users

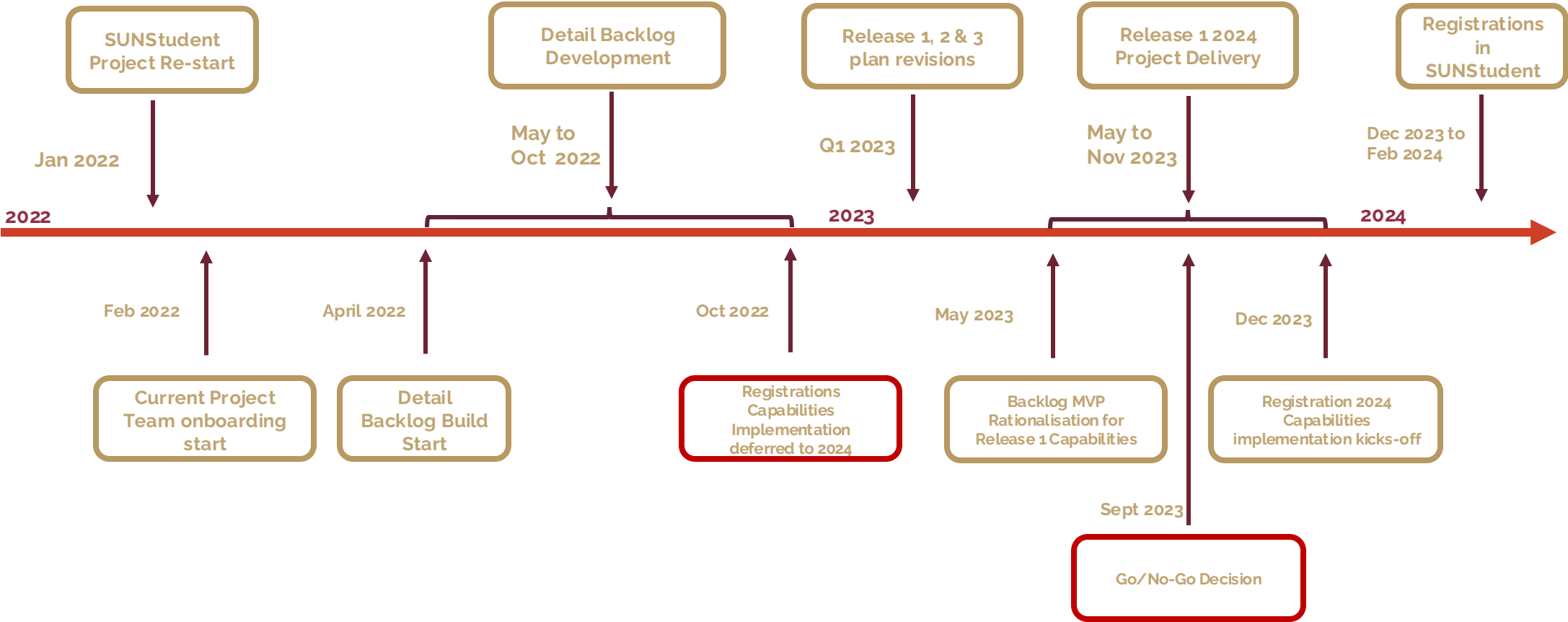
Project Governance and Methods

Planning now conducted in Jira



Customisation backlog in Jira (linked to plan/schedule)





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

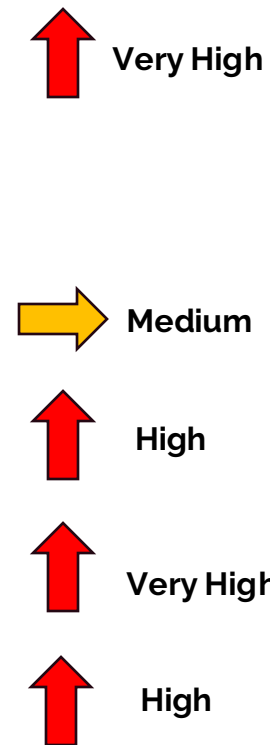
- No capacity to expend on Plan B if commitment to a Go decision is obtained

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



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

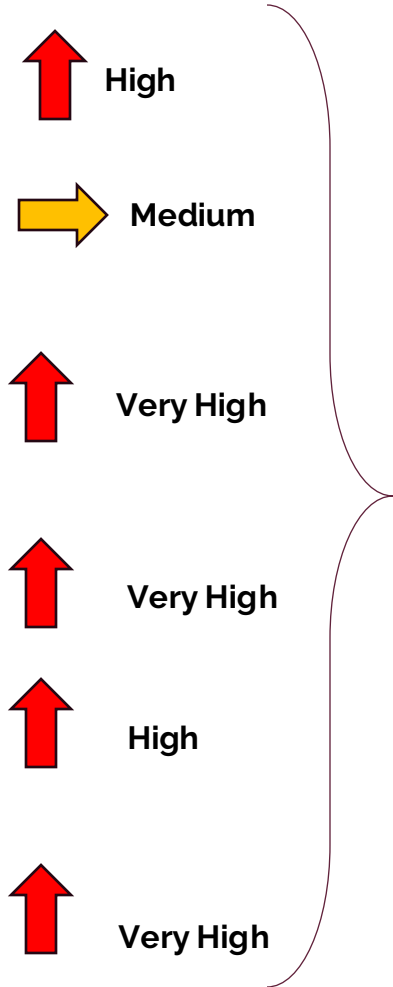
- No capacity to expend on Plan B if commitment to a Go decision is obtained

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.
- The project team continues to support the issues experienced during go-live with the able assistance of SU IT and the SSC.

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 two 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 March, 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.

- **DATA**

- **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.

- **“LIVE” CAPABILITIES**

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

- **DELIVERY OF NEW FUNCTIONALITY**

- Review implementation schedule 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**

- **RESOLVE DELIVERY MODEL – HOW SU AND SEROSOFT WORK TOGETHER TO DELIVER**
 - Revisit delivery issues that emerged over the past months
 - Much higher transparency from vendor
 - Root cause analysis of how current issues were not picked up during testing phases
- **LONGER TERM PLAN**
 - Roadmap going forward

Nkosi, Thank You, Baie Dankie

**Further input and questions
sunstudent@sun.ac.za**