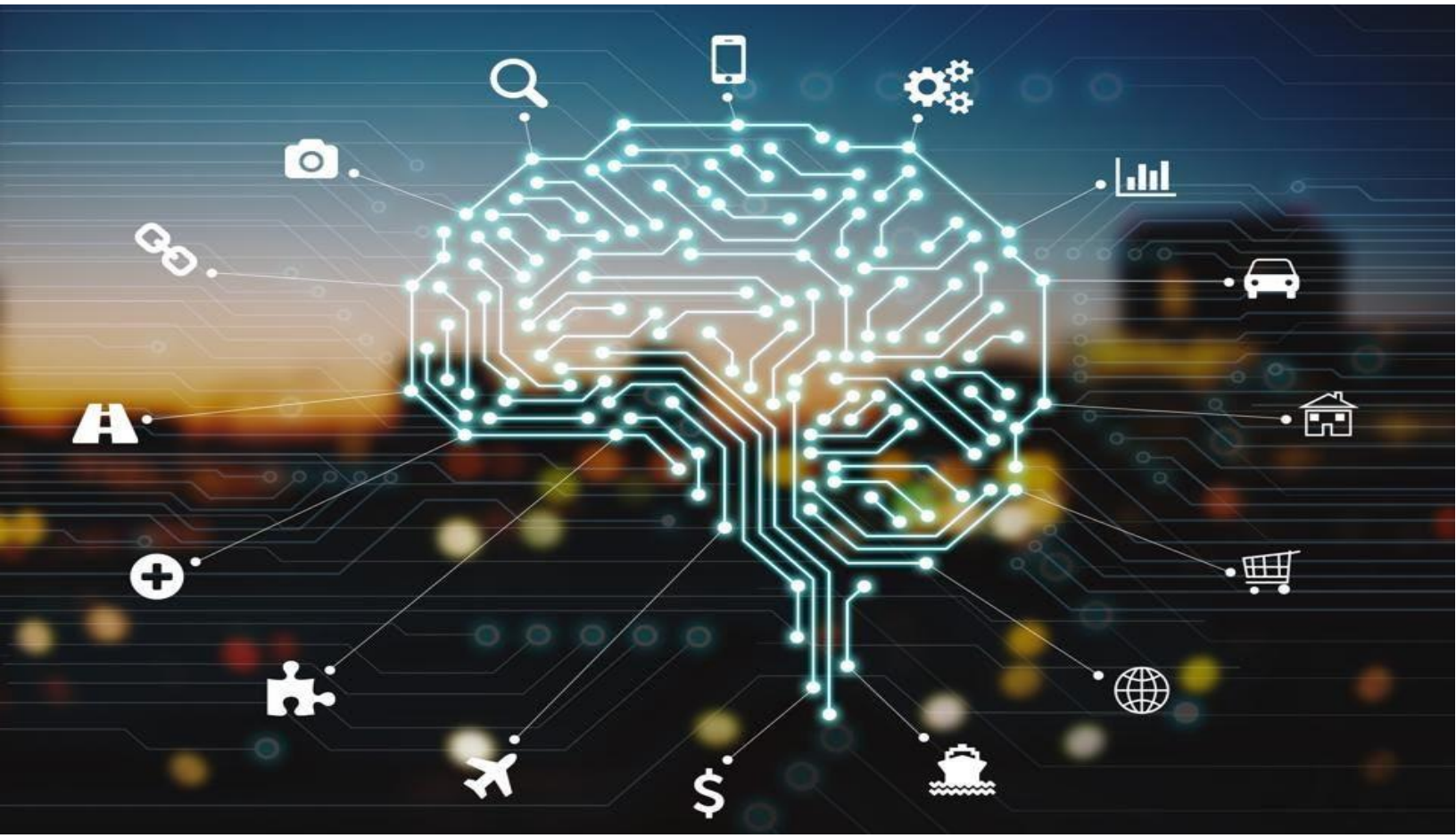
THE SCHOOL OF ENGINEERING

MAKERERE UNIVERSITY



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ACRONYMS

BSc	Bachelor of Science
COVID-19	Corona Virus Disease - 19
GOU	Government of Uganda
HEI	Higher Education Institutions
ICT	Information Communications Technology
IP	Intellectual Property
KPI	Key Performance Indicators
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MSc	Master of Science
NCHE	National Council for Higher Education
CEDAT	College of Engineering, Design, Art and Technology
PESTLED	Political, Economic, Social, Technological, Legal, Environmental, Demographic
SWOT	Strength, Weaknesses, Opportunities and Threats
SoE	School of Engineering
SP	Strategic Planning
Ush	Uganda Shillings

THE PRINCIPAL'S FORWARD

WORD FROM THE DEAN

1. EXECUTIVE SUMMARY

The School of Engineering Strategic Plan was developed to enhance the Academia-Industry relationship, a gap experienced by the School and the students as they join employment or start businesses. This Strategic Plan will span the period 2025/26 – 2029/30 with the strategic areas of focus being; Research, innovation and tech transfer; Teaching and staff capacity; Enhanced engagement and partnership with industry; Student learning experience; Operational Excellence (efficiency and digitization) and Financial Stewardship.

In a bid to keep up with the ever evolving trends and technologies in engineering, the SoE has newly split the Electrical and Computer Engineering department into Electrical and Electronics Engineering and Computer and Communications Engineering departments. Together with the Department of Civil and Environmental Engineering and Department of Mechanical Engineering, the departments will strategically and operationally implement the Strategic direction and achieve the strategic objectives with their respective departmental and school objectives.

The Strategic Plan also highlights recommendations to improve Academia-Industry Relations and organizational analyses (SWOT and PESTLED). It also maps the Strategic Objectives to Strategic Areas and Perspectives which departments through their scorecards will contribute towards.

The resource mobilization strategy emphasizes the need for alignment of annual work plans and budgets to the Strategic Plan priorities, lobbying for additional funding from the Government and Donors and strengthening partnerships and collaborations in line with strategic initiatives. The plan will cost about Ugx 16.5 billion broken down in section 4 of this plan.

Under the institutional arrangements for implementation, the Strategic plan recommends the need to set up a Corporate Relations office and team charged with promoting Academia-Industry relation, stakeholder and Grants Management.

Key to the implementation, the plan also details the Institutional and Departmental Scorecards, communication and feedback strategy and the Implementations risks. These are living sections that the School and Departments should endeavor to actively update as and when necessary.

2. SITUATIONAL ANALYSIS

2.1 Background

The Makerere School of Engineering (SoE) received funding from the China Funds in Transit (CFIT), an initiative by UNESCO with support from the People's Republic of China, to develop a Strategic Plan for the school focused on developing and strengthening the Academia-Industry collaboration under the CFIT III project. The Strategic Plan will span 5 years from 2025/26 to 2029/30.

This section presents a situation analysis of the SoE to determine the reference point for the development of the Strategic Plan. The analysis involved an internal and external environmental assessment of the SoE's current and potential engagements with its stakeholders.

This was achieved through interviews with internal and external stakeholders, document review, and the use of questionnaires sent to relevant stakeholders.

To harness the school's capabilities for greater future impact, the assessment included the following aspects: SoE Institutional and Management Structure; SoE Departments and Services offered; SWOT and PESTLED Analysis; Funding Sources and Stakeholder Grouping as elucidated below;

2.2 About the School of Engineering

The School of Engineering is one of the three schools that form the College of Engineering, Design, Art and Technology (CEDAT). It was formed during the formation of Colleges at Makerere University in 2011. The School of Engineering houses the three traditional Engineering Departments in Makerere University, namely; Mechanical Engineering, Electrical and Computer Engineering, and Civil and Environmental Engineering. These departments were established were established in Makerere University in 1970.

2.2.1 Department of Civil and Environmental Engineering

The Department of Civil and Environmental Engineering (DCEE) boasts of highly qualified human resources that train students to the highest academic standards comparable to those of the highly ranked Universities in Africa and the world. Since its inception, the Department has administered a four-year undergraduate curriculum providing a broad foundation in the above areas, leading to the award of the Degree of Bachelor of Science in Civil Engineering. The courses taught are clustered under mathematics, Information and Communications technology, technical drawing and technical and support courses, vocational training, and design project (group and individual). The department also provides Postgraduate Diplomas in Construction Project Management and Urban Planning and Design. It also has a master's program covering Civil Engineering, Urban Planning and Design, Geo-Information Science and Technology, Construction Management and Land Management.

Department of Electrical and Electronics Engineering.

This department will focus on Power systems, renewable energy and electronics aspects of engineering. The curriculum of the existing Bachelor of Science in Electrical Engineering has been revised to include power systems, renewable energy, electronics and control systems. The department offers a Master of Science in Power Systems Engineering and PhD in Electrical Engineering.

Department of Computer and Communication Engineering

Arising from the merger of Computer and Communications engineering, the new department will administer a new course curriculum offering a Bachelor of Science in Computer and Communications Engineering. The course will include software development and application of new trends in Machine Learning, covering the application of AI and robotics in real life. The department will also offer a Master of Science in Computer and Communications Engineering. Both courses to be available from the start of the academic year in August 2025, after accreditation in April 2025 by the National Council of Higher Education. The department plans to offer a PhD in Computer and Communications Engineering. The curriculum will be reviewed by the department, the school of Engineering, CEDAT, the University Senate, Quality Assurance, the University Council, and the National Council of Higher Education for accreditation.

Department of Mechanical Engineering.

The Department of Mechanical Engineering at the School of Engineering was started in the 1970's. The department offers one undergraduate program and three graduate programs, namely: Master of Science in Mechanical Engineering, Master of Science in Technology Innovation and Industrial Development and Master of Science in Renewable Energy.

Vision of the SoE

SoE has a vision to be the leading school in Engineering Education and Research innovations in Africa. The mission is to educate and graduate engineers who are well founded in engineering fundamentals, blended with the highest standards of professional and ethical behavior, and are prepared to meet the market technical challenges and the needs of society. The school is committed to:

1) Supporting excellence, innovation and cross-disciplinary initiatives in teaching and research.
2) Encouraging opportunities for students to grow beyond their chosen disciplines by participating in industry-sponsored projects, exchange programs, and research activities.
3) Providing an academic environment conducive to staff achieving the highest levels of academic and research excellence.
4) Continuing to be the top engineering school in the region.

5) Providing national leadership in undergraduate and graduate engineering education. The School offers both undergraduate and graduate programs in various engineering disciplines consisting of civil, electrical, and mechanical engineering (Engineering, 2023).

2.3 SoE's Successes

In the last five years, SoE performed well despite the COVID-19 pandemic that led to national lockdowns between 2020 and 2021. According to CEDAT, School of Engineering report (2018-2023) and SoE Graduate Tracer Study 2022, some of the key achievements included the following:

- The rate of employment, including self, was close to 90%.
- A Portion of 79% were satisfied with their current jobs; 50% very satisfied; 17% were ecstatic.
- 3450 students graduated from engineering programs in the period 2012-2021, with 3338 graduating from Bachelor's and 112 from the Master's programs.
- The total number of key research equipment and services was 59 across the three departments.
- The total research projects stood at over 40 as of 2023.
- There were over 40 publications by the School of Engineering in 2022.

2.4 SoE Challenges and Solutions from the Situation Analysis

Key stakeholders identified several issues and provided valuable insights into how to address them. The summary is highlighted below.

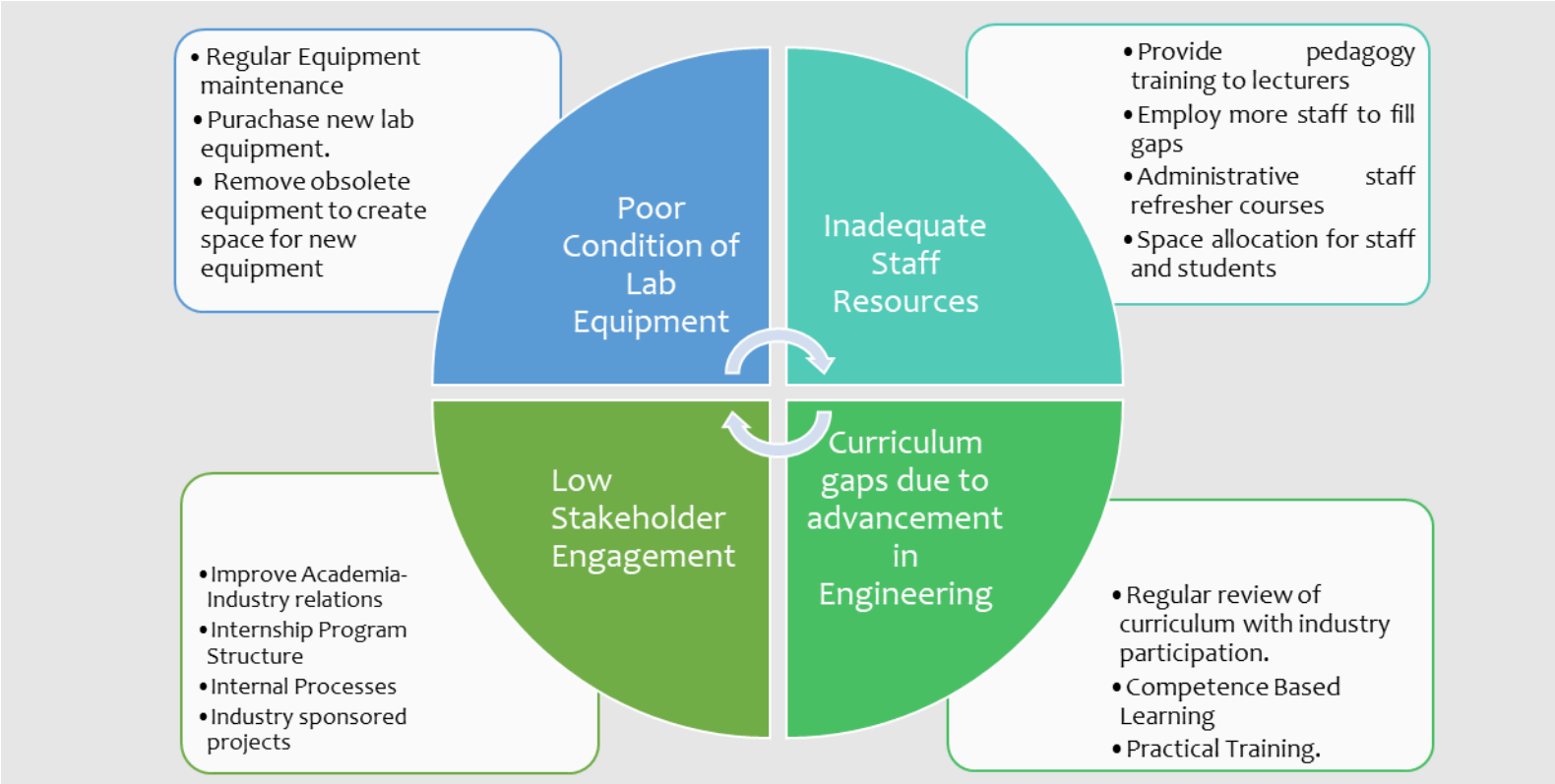

Figure 1: Key Challenges and Solutions

2.5 Key Recommendations to Improve Academia-Industry Relations

1. **Creation of a Corporate Relations Office**: The School of Engineering should consider setting up a Corporate Relations Office. This office will engage with industry and other partners to establish research partnerships, manage corporate sponsorships, and support the commercialization of research. Some of the functions that the office will perform include:
   - **Partnership Development**: Identify and cultivate relationships with industry partners, facilitating collaboration on research and development projects.
   - **Intellectual Property Management**: Manage the SoE's intellectual property portfolio, including patent filing, licensing, and commercialization of innovations.
   - **Start-up Support**: Assist faculty and students in launching start-ups based on SoE research, providing guidance on business development and securing funding.
   - **Industry Collaborations**: Facilitate industry-sponsored research and development projects, ensuring compliance with legal and regulatory requirements.
   - **Sponsorship and Funding**: Secure sponsorships, grants, and donations from corporate partners to support university programs, research, and infrastructure.
   - **Corporate Events**: Organize events such as career fairs, networking sessions, and industry conferences to connect students and faculty with industry professionals.
   - **Collaboration Agreements:** Negotiate and manage contracts, memoranda of understanding (MOUs), and partnership agreements with industry entities.
   - **Liaison Activities:** Serve as a point of contact between the university and industry, ensuring clear communication and mutual understanding of goals and expectations.

2. **Curriculum Review with Industry Involvement**: The School of Engineering should annually or as seen fit, review the curriculum with input from industry to closely evolve with new and emerging trends to ensure the students are prepared for the labour market needs. In addition to the required practical training, students should be given soft skills and entrepreneurship training. The creation of an Industry advisory board would assist with curriculum development, research focus areas, and course content to match industry needs.

3. **Review of Internship Program Structure**: The School of Engineering needs to reengineer the structure of the internship program to meet the industry needs especially practical skills training, and better coordination to meet student placement needs and learning outcomes.

4. **Mentorship and Training for Students and Faculty**: The School of Engineering should work to develop mentorship programs where experienced industry professionals mentor students, providing career guidance and industry insights. Pedagogy training can also be provided to teaching staff on new technologies, equipment, and techniques in industry practice.

5. **Sustainability and Social Responsibility Projects**: The school of Engineering should collaborate with industry on projects that address local community challenges, emphasizing sustainable and socially responsible engineering practices. It should also partner with

companies on their CSR initiatives, providing students with opportunities to work on impactful projects. These can be coordinated by the Corporate Relations Office.

2.6 Organizational Analysis

The analysis was undertaken to make a systematic and thorough evaluation of the state of SoE. This process gives stakeholders a better understanding of SoE and the environment in which it operates.

2.5.1 SWOT Analysis

SWOT analysis noted the capabilities of SoE that will help create strategies that will proactively contend with the challenges faced in achieving the vision. The analysis looked at the Strengths, Weaknesses, Opportunities, and Threats that affect SoE to better understand SoE ecosystem at a glance.

Table 1: SWOT Analysis

Strengths	Weaknesses
1. Well-trained academic staff. 2. Being home to reputable centres such as CREEC and Mapronano 3. Receiving/admitting top students 4. Dedicated Staff 5. Being a part of a high-ranking Academic Institution in Africa and worldwide.	1. Graduate students lack dedicated space for learning. 2. Old software running on computer labs. 3. Lack of specialized training opportunities for PhD students to facilitate their research studies. 4. Low completion rates leading to student dissatisfaction, affecting the school's reputation. 5. Inadequate staff to supervise students' research work. 6. Low admission numbers due to the low completion rates 7. Limited facilities and financing 8. Perceived negative attitude of graduate supervisors by the students. 9. Demotivated staff in terms of promotion and work structure that does not offload staff members by hiring PhD students to teach undergraduate students.
Opportunities	**Threats**
1. Use of Grants-call databases for applying for grants 2. Use the interdisciplinary nature of the College to conduct holistic research. 3. The 24-hour 'policy' on keeping CEDAT open could lead to increased staff and student productivity. 4. Involvement of PhD students in teaching, supervising, and mentoring undergraduate students 5. The ability to solve industry problems. 6. Exposing our learners to professional bodies as student members and lobbying for more industrial placements 7. Government research funding and a high number of students willing to uptake graduate studies	1. Ill-treatment of students especially by some administrative staff that breeds bad reputation. 2. The low completion rates at graduate level resulting in poor reputation. 3. Low admission rates 4. Unfavorable policies and mindset challenges within the education system

2.5.2 PESTLED Analysis

The PESTLED Analysis was used to gain a macro picture of SoE environment. It allows SoE to form an impression of the factors that might impact the implementation of the strategic plan. It evaluated the external environment of SoE by breaking down the opportunities and risks into Political, Economic, Social, Technological, Environmental, Legal and Demographic factors.

Table 2: PESTLED Analysis

Political	Economic	Social	Technological	Legal	Environmental	Demographic
Political Instability	Stiff competition for jobs	Institutional culture	Leveraging Emerging Technologies to develop relevant solutions	Copyright & IP issues	Climate change, circular economy, and green jobs.	Youth unemployment
Changes in government policies	Government Funding and Support	Demand for increased research capacity	Digitization and E-learning	Compliance requirements	Obsolete equipment disposal	Low-girl child access to basic and tertiary level education
Regulations and government policies	Income level of Ugandans	Cultural norms and social trends	New technological trends and software for work	Change in legal and government processes & procedures	Sustainability	
International relations with funding entities and countries	Tax policy on gadgets, and educational material	Cultural diversity	Innovation centers	Revised University and other tertiary institutions Statute	Natural Disasters	
Policy on research funding by the government	Economic growth rate	Future of work and online learning	Technology Infrastructure and modern lab resources			

2.7 Stakeholders Matrix

The identified stakeholder groups for the implementation of this strategic plan are shown in the table below.

Table 3: Stakeholder Groups, Roles, and Obligations

STAKEHOLDER GROUP	NEEDS/INTERESTS	SoE's OBLIGATIONS TO THE STAKEHOLDERS
Industry Partners	1. Updates on curriculum relevance to industry needs 2. Opportunities for partnership and collaboration. 3. Highlight the value proposition of graduates with industry-aligned skills 4. Foster ongoing engagement for collaborative projects and internships. 5. Further training through tailored short courses or workshops.	1. Strong Value Proposition 2. Periodic progress meetings and reports 3. Clear communication and feedback channels
Development Partners	1. Progress updates on project milestones 2. Resource needs and allocation 3. Alignment with Development Partners' Objectives	1. Reports on project milestones 2. Progress Reports and meetings
Policy Makers	1. Alignment of the Strategic plan and School's goals with the National Development Plan and goals 2. Feedback on policy updates' effect on education.	1. Compliance with policies and regulations 2. Provision of policy briefs to guide decision making.
Regulatory Bodies	1. Compliance with accreditation standards 2. Updates on programs' quality and outcomes assessment. 3. Open communication on curriculum development processes.	1. Compliance with regulations and standards 2. Engagement and lobbying to influence favorable policies and standards.

STAKEHOLDER GROUP	NEEDS/INTERESTS	SoE's OBLIGATIONS TO THE STAKEHOLDERS
Alumni	1. The School's commitment to graduate employability and industry relevance. 2. Explore the potential for alumni mentorship and guest lectures 3. Updates on the School's achievements 4. Networking opportunities	1. Periodic reports to the progress of SoE projects and activities. 2. Engagement with the aim of strengthening partnerships and collaborations.
Faculty and staff	1. Professional development opportunities aligned with Industry needs 2. A culture of innovation and industry engagement in teaching practices. 3. Communication of School policies and procedures. 4. Knowledge of the industry collaboration aspects of the plan.	1. Staff remuneration 2. Provision of teaching material and other necessary facilitation 3. Professional Development of staff 4. Supervision of academic staff
Students	1. Communication on how the strategic plan will enhance their learning experience with industry exposure. 2. Opportunities for internships and projects with industry partners. 3. Communication of student feedback to administration. 4. Academic support services 5. Student participation in industry-related activities	1. Dedicated space for learning for graduate students. 2. Internship placements for Undergraduate students. 3. Academic support services 4. Career guidance

3. STRATEGIC DIRECTION

3.1 Strategic Context

SoE has identified the following key areas of focus where the organisation must excel in order to achieve its vision. **Table 5** provides information on the areas of strategic focus and their expected results while **figure 2** demonstrates the role played by the areas of strategic focus as pillars of success in the journey to achieving SoE's vision.

Table 4: Areas of Strategic Focus and their Expected Results

Areas of Strategic Focus	Expected Results
Research, innovation and tech transfer	Foster improvement of research, innovation, and adoption of advanced technology
Teaching and staff capacity	Improve teaching and staff capacity
Enhanced engagement and partnership with industry	Develop and strengthen partnerships with stakeholders
Student learning experience	Cultivate a pragmatic learning experience
Operational Excellence	Streamline institutional and management processes (Digitization)
Financial Stewardship	Mobilise resources for the sustenance and development of the School of Engineering

3.2 Strategy House

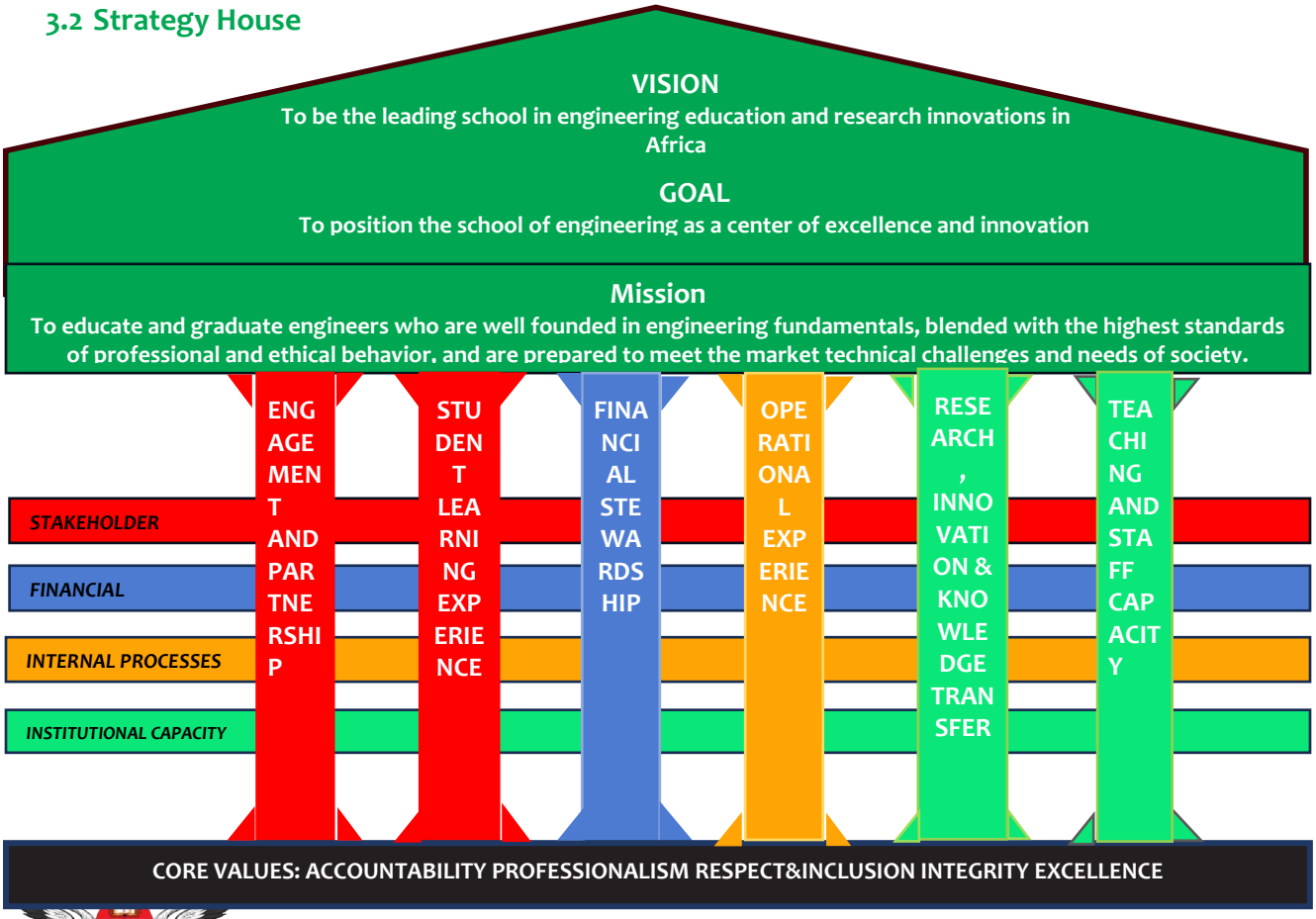

Figure 2: Strategy House

3.3 Vision, Mission, and Values

Vision

"To be the leading school in engineering education and research innovations in Africa"

Mission

"To educate and graduate engineers who are well founded in engineering fundamentals, blended with the highest standards of professional and ethical behavior, and are prepared to meet the market technical challenges and needs of society."

Goal:

"To position the school of engineering as a center of excellence and innovation."

Values:

SoE will pursue five core values over the strategic plan period (2024 - 2030), which will form the overarching culture that will need to be strengthened to achieve the institution's strategic goal and objectives.

Table 5: Makerere University Core Values

#	Value	Definition
1	Accountability	Commit university staff to uphold the ethos that meet the expectations of its stakeholders.
2	Professionalism	Demonstrate competence and a culture of customer care to generate new ideas from staff and students.
3	Respect and Inclusivity	Promote diversity in the university community and create an inclusive environment in which ideas flourish to achieve maximum potential without discrimination.
4	Integrity	Uphold ethical values that ensure that staff and students do the right thing in all circumstances.
5	Excellence	Strive for excellence that seeks to apply the highest standards to benefit university stakeholders.

3.4 SoE Goal and Objectives

SoE is looking to improve its initiatives and tasks to position itself as a center of excellence and innovation over the next planning cycle. To achieve this, it has set its path on achieving the following objectives as it further consolidates its focus on being the leading school in engineering education and research innovations in Africa:

1. To foster the improvement of research, innovation, and adoption of advanced technologies.
2. To improve teaching and staff capacity.
3. To develop and strengthen partnerships with stakeholders.
4. To cultivate a pragmatic learning experience.
5. To streamline institutional and management processes.
6. To mobilise resources for the sustenance and development of the School of Engineering.

The strategic objectives above have been coined from a synthesis of key strategic areas/Initiatives and thematic areas together with the associated tasks developed by each perspective at SoE from the analysis of relevant CEDAT and the School's reports, and stakeholder interviews.

3.4.1 SoE Theory of change

SoE's strategic objectives have been coined to strengthen its goal to position the School of Engineering as a center of excellence and innovation in the new strategic planning cycle 2024-2030. These objectives are categorized into four key strategic perspectives and six thematic areas, each contributing specific value to institutional transformation from the current state to the desired state.

1. **Institutional Capacity:** SoE aims to fortify its staff capacity and foster the improvement of research and innovation to contribute to the vision of the school. This will improve the institution's capacity to serve its students and stakeholders better.
2. **Internal Process Enhancement:** SoE is committed to optimizing its internal processes, ensuring increased operational efficiency. This streamlining effort will directly contribute to better resource management and service delivery, ultimately resulting in a superior experience for its students and other stakeholders.
3. **Financial Stewardship:** SoE's dedication to improving financial efficiency and mobilizing resources for development and sustainability is critical. This financial stability enhances the SoE's ability to invest in equipment, research and learning initiatives, positively impacting its goal.
4. **Stakeholder Centricity:** By strengthening stakeholder engagement and cultivating a pragmatic learning experience, SoE ensures a holistic approach to stakeholder satisfaction by providing services that cater to their needs. This approach directly aligns with SoE's overarching vision and goal.

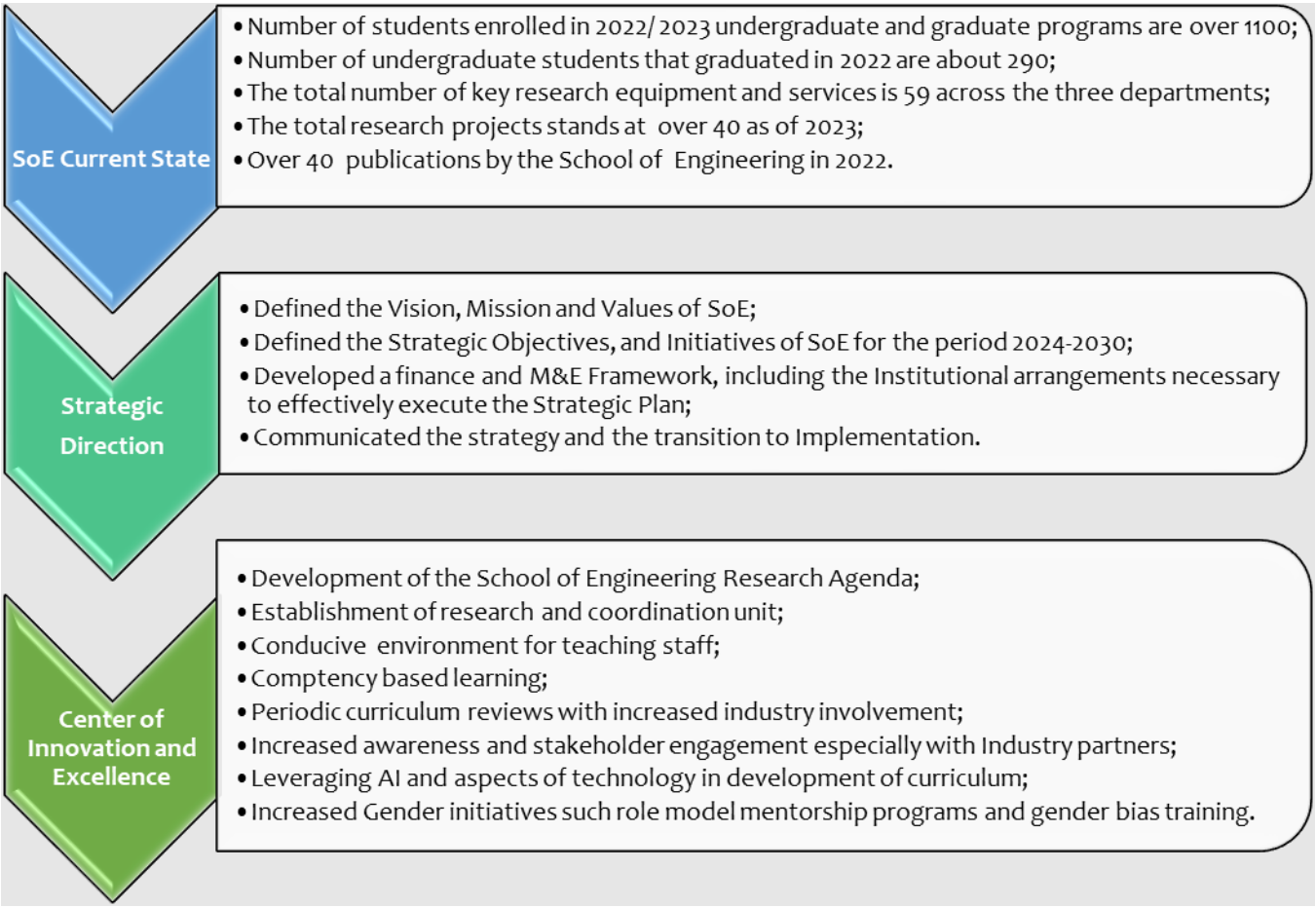

Figure 3: Theory of Change

3.4.2 SoE Strategic Mapping

Figure 4: Strategic Map

The Strategic map above summarizes the relationship between the SoE Objectives, the four (4) Strategic perspectives towards the overall goal and vision of SoE, highlighting key strategies at each stage/level.

Table 6: Mapping of Strategic Objectives to Strategic Areas and Perspectives.

#	Strategic Perspectives	Strategic Focus	Strategic Objectives	Strategic Areas	Strategic Key Result
1.	Institutional Capacity	Research, Innovation and Knowledge Transfer	To foster the improvement of research, innovation, and adoption of advanced technologies.	• School of Engineering research agenda • Advancing research and innovation • Creation of Incubation centers • Purchase and maintenance of lab equipment. • Exchange Programs • Gender initiatives	• Development of the School of Engineering research agenda. • Establishment of research and coordination unit. • Academia-Industry Joint research projects • Lab resources that are fit for purpose. • Knowledge transfer • Gender Parity
		Teaching and Staff Capacity	To improve teaching and staff capacity.	• Staffing Resources • Competence Based Training • Enhanced use of ICT and online teaching engagements • Regular curriculum reviews with industry involvement • Practical training for teaching staff • Student-teacher ratio • Gender initiatives	• Conducive environment for teaching staff • Improved staffing resources • Curriculum aligned with market and industry needs. • Teaching staff with practical experience • Student: teacher ratio that meets NCHE guidelines • Gender Parity

#	Strategic Perspectives	Strategic Focus	Strategic Objectives	Strategic Areas	Strategic Key Result
2.	Stakeholder	Enhanced Engagement and Partnership	To develop and strengthen partnerships with stakeholders.	• Academia-Industry Relations • Gender initiatives	• Industry Sponsored projects • Internship placements • Mentorship programs • Conferences and workshops • Study tours. • Guest lectures • Graduate training programs • Gender Parity
		Student Learning Experience	To cultivate a pragmatic learning experience.	• Internship Placements • Career Guidance • Soft skills Training • Entrepreneurial Training • Increased practical training. • Peer Mentorship programs • Flexibility in graduate programs scheduling. • Gender initiatives	• Student career development • Increased student employability • Student with skills desired by the market. • Improved learning outcomes • Evening and weekend programs for masters and other short courses. • Gender Parity
3.	Internal Processes	Operational Excellence	To streamline institutional and management processes.	• Process reengineering. • Identification of bottle necks in process • Process improvements. • Gender initiatives	• Improvement of operational efficiency and effectiveness • Improved student and staff experience • Improved records management • Gender Parity

#	Strategic Perspectives	Strategic Focus	Strategic Objectives	Strategic Areas	Strategic Key Result
4.	Finance	Financial Stewardship	To mobilise resources for the sustenance and development of the School of Engineering.	• Research Grants • Industry Donations • Short course developments • Addressing funding gaps • Gender initiatives	• Meet funding needs for underfunded priority areas. • Hiring of Grants Officer • Gender Parity

4. FINANCING FRAMEWORK AND STRATEGY

The implementation of this Strategic plan is estimated to cost approximately ***Ugx 16,500,000,000 (Sixteen billion five hundred million shillings only)*** over the strategic period, with the school's expenditure being annualized and aligned to the Strategy.

4.1 Resource Mobilization Strategy

In line with the Makerere University Resource Mobilization Strategy, SoE will endeavor to meet the financial needs and requirements through;

- The alignment of annual work plans and budgets to the Strategic Plan priorities
- Lobbying for additional funding from Government and Donors
- Strengthening partnerships and collaborations in line with strategic initiatives

Table 7: Strategic Plan Cost of Implementation

ITEM	Amounts in Ugx '000					
	BASELINE (2024/25)	Year 1 (2025/26)	Year 2 (2026/27)	Year 3 (2027/28)	Year 4 (2028/29)	Year 5 (2029/30)
REVENUE	**Amounts**					
Allocation through CEDAT	800,000	800,000	800,000	900,000	900,000	900,000
Grants	700,000	500,000	600,000	800,000	800,000	800,000
Other Services	600,000	600,000	600,000	650,000	700,000	700,000
Other income	50,000	55,000	55,000	60,000	65,000	70,000
Total Revenue	**2,150,000**	**1,955,000**	**2,055,000**	**2,410,000**	**2,465,000**	**2,470,000**
EXPENDITURE						
Cost of Services	400,000	450,000	500,000	600,000	500,000	500,000
Grant Expenses	700,000	500,000	600,000	800,000	800,000	800,000
Staff Costs	300,000	400,000	600,000	600,000	600,000	600,000
Operating Expenses	250,000	300,000	400,000	400,000	500,000	500,000
Infrastructure and Euipment		-	1,500,000	1,500,000	-	-
Total Expenditure	**1,650,000**	**1,650,000**	**3,600,000**	**3,900,000**	**2,400,000**	**2,400,000**
Surplus/Deficit	**500,000**	**305,000**	**-1,545,000**	**-1,490,000**	**65,000**	**70,000**

Assumptions;

1. **Revenues**
   - With the introduction of new Masters and PhD programs in the various departments, revenue from the allocation to the SoE, other services and other income will increase gradually from year 3 onwards
2. **Expenditure**
   - The expenditure on infrastructure and equipment will increase exponentially in year 2 and 3 due to building, renovation and equipping laboratories.
   - The cost of services, staff and operations will increase in year 2 and 3 with the start of new Masters and PhD courses.

5. INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION

5.1 Oversight and Implementation of the Plan

Implementation of the strategic Plan shall be led by the leadership team of the School of Engineering, under the guidance and oversight of the principal of CEDAT. The leadership team shall periodically appraise the principal of the college for progress being made in the implementation of the strategic initiatives and attainment of strategic Results. The Principal shall support the SoE leadership team through provision of policy guidance, strategic oversight and ensuring the requisite resources are in place to implement the plan. The School shall appoint Strategy Champions in the department to spearhead, monitor and periodically report on the implementation of initiatives at department level.

5.2 SoE Institutional Arrangements

The success of the Strategic Plan implementation is dependent on several key factors, including the appropriate institutional culture, a robust implementation framework, effective coordination within the SoE team, and a motivated and skilled human resources team.

The establishment of a corporate relations office is essential for the strategic plan's execution. This office will oversee funding mobilization, manage academia-industry relations, and provide career services for students. New roles within the office will include career advisors, a grant officer, and an industrial/corporate relations officer. The proposed organizational structure below is designed to ensure effective strategy execution.

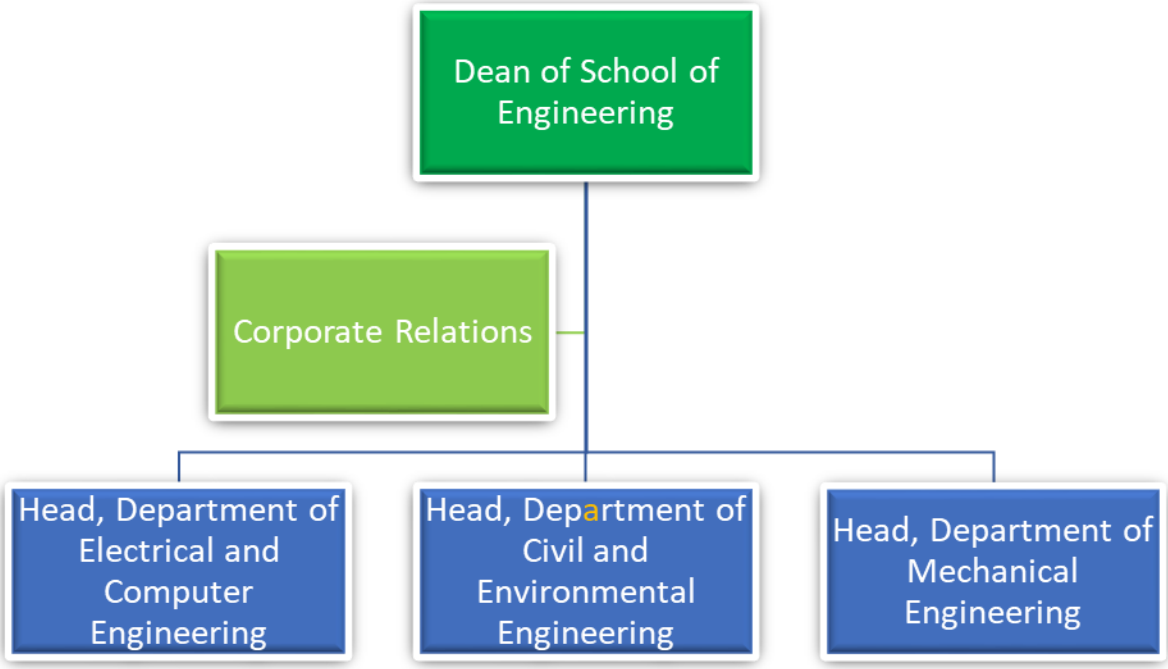

Figure 5: Proposed SoE Organizational Structure

6. COMMUNICATION AND FEEDBACK STRATEGY

The communication plan in *Table 9* below outlines the methods by which information will be shared among the stakeholders involved in the implementation of the strategic plan. It is essential that all stakeholders comprehend the Strategy, and effective feedback is encouraged to ensure that the plan is carried out efficiently.

In some cases, it may be necessary to reiterate the message several times to both SoE staff and stakeholders to ensure that the Plan's objectives are well understood. Adequate feedback mechanisms will be in place to ensure that stakeholders receive appropriate feedback through the appropriate channels. The communications matrix is detailed in the implementation plan, which will provide a comprehensive outline of how information will be disseminated among the stakeholders.

External Communication

Table 9 describes how SoE plans to communicate to its key audiences. The section entails a stakeholder matrix that describes each category of stakeholders, their likely needs, the key channels to use to target them, and the key documentation and items involved.

Table 8: Communication to External Stakeholders

#	Audience Segment	Description	Needs/interest	Channel	Documentation
1.	**INTERNAL STAKEHOLDERS**				
1.1	Admin and Heads of Department	School administrators and department heads responsible for decision-making, coordination, and Implementation.	• Secure buy-in and ownership of the strategic plan from department heads. • Collaboration between departments for effective industry engagement. • Resources and support for implementing new initiatives. • Budget allocation	• Strategic planning workshops • Meetings • Memos • Emails • Training sessions on Curriculum development	• Strategic plan with departmental action plans for industry collaboration • Implementation timelines and resource allocation • Communication guidelines for departmental dissemination of the plan. • Budget Reports • Meetings Minutes

1.2	Staff	Faculty and technical staff responsible for delivering programs.	• Professional development opportunities aligned with Industry needs • A culture of innovation and industry engagement in teaching practices. • Communication of School policies and procedures. • Knowledge of the industry collaboration aspects of the plan.	• Staff meetings • Emails • Staff training sessions on industry collaboration • Faculty meetings with Industry guest speakers. • Memos • Q&A sessions with leadership on implementation	• Strategic plan with staff development plan for industry-aligned skills • Meeting minutes • Training materials • Policy documents • Information on new teaching methodologies incorporating industry input
1.3	Student Representatives	Elected student representatives advocating for student interests within the School.	• Communication on how the strategic plan will enhance their learning experience with industry exposure. • Opportunities for internships and projects with industry partners. • Communication of student feedback to administration. • Academic support services • Student participation in industry-related activities	• Student Forums and Portals • Emails • Student union meetings • Social media engagement with industry internship and project opportunities • Schools Newsletters • Memos	• Information on internship and project opportunities with industry partners • Opportunities for student participation in industry events and competitions • Strategic plan student-focused summary • Student feedback reports • Meeting minutes
2.	**EXTERNAL STAKEHOLDERS**				
2.1	Industry Partners	External organizations that employ graduates	• Updates on curriculum relevance to industry needs • Opportunities for partnership	• Industry meetings • Industry Workshops	• Memorandums of Understanding • partnership

		and collaborate on projects.	and collaboration. • Highlight the value proposition of graduates with industry-aligned skills • Foster ongoing engagement for collaborative projects and internships. • Further training through tailored short courses or workshops.	• Emails • Website section with partnership opportunities	agreements • Case studies of successful partnerships • Industry collaboration framework • Strategic plan summary document
2.2	Policymakers	Government officials or entities responsible for setting educational policies and regulations.	• Alignment of the Strategic plan and School's goals with the National Development Plan and goals • Feedback on policy updates' effect on education.	• Reports • Presentations • Emails • Website section	• Strategic plan executive summary • Alignment matrix with national development goals • Impact Progress Reports on graduate employability •
2.3	Development Partner/NGOs	Organizations that provide funding and support to the School of Engineering	• Progress updates on project milestones • Resource needs and allocation • Alignment with Development Partners' Objectives	• Meetings • Regular Progress Reports • Emails • Dedicated program liaison • Website section with project updates	• Project Proposals • Funding Requests • Quarterly reports with key performance indicators (KPIs) on industry engagement • Case studies of successful industry collaboration initiatives • Financial reports
2.4	Regulatory Bodies	Government agencies responsible for	• Compliance with accreditation standards • Updates on programs' quality	• Presentations to accreditation bodies	• Compliance documentation with accreditation

		overseeing education standards and accreditation.	and outcomes assessment. • Open communication on curriculum development processes.	• Compliance Reports • Meetings • Emails • Website section	standards • Accreditation reports • Periodic reports on curriculum revisions • Strategic plan section on curriculum development with industry input
2.5	Alumni	Former graduates of the School of Engineering.	• The School's commitment to graduate employability and industry relevance. • Explore the potential for alumni mentorship and guest lectures • Updates on the School's achievements • Networking opportunities	• Alumni Newsletters with Industry collaboration updates • Alumni Events with Industry speakers • Social media engagement with industry-related content • Dedicated alumni website section • Emails	• Strategic plan highlights • Alumni engagement reports • Event summaries • Alumni engagement strategy • Information on career development resources and industry networking opportunities

7. IMPLEMENTATION RISKS

As SoE sets out to implement its new Strategic Plan, there are a myriad of internal and external risks within and outside its control, that it might encounter and that will affect how successfully the set target will be attained. These risks have been categorized into specific strategic Objectives risks and general risks.

The strategic direction SoE will embark on in the next planning cycle and its implementation might encounter risks shown in the table below;

Table 9: Strategic Objectives Vs Implementation Risks and Mitigation Measures

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Objective 1: To foster the improvement of research, innovation, and the adoption of advanced technologies.							
Inadequate funding	Declining research funding applications	Highly likely to face funding challenges	Decline in the School's contribution to knowledge creation	Academic Performance: The School of Engineering may experience lower graduation rates, and an overall decline in the quality of education. Global Standing: The school's reputation and ranking on a global scale may suffer, impacting its ability to attract top talent and funding	High	Diversifying funding sources through developing partnerships with industry, lobbying for additional funding from Government, engaging in fundraising activities	Low

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Limited stakeholders buy-in	Low faculty engagement	Highly likely especially because initiatives may require change or significant investment	Lack of support for new ideas and technologies, hindering progress which may ultimately affect the school's competitiveness.	Strategic Alignment: Without Stakeholder support, it may be difficult to align the school's strategic objectives with the actions needed to achieve them. Resource Allocation: Limited buy-in can lead to suboptimal allocation of resources, as not all stakeholders may agree on where to invest efforts and funds.	High	Active management of stakeholder relationships through understanding stakeholder expectations, fostering open communication, and involving stakeholders in the decision-making process to ensure their interests are aligned with the school's goals. Demonstrating the value and potential impact of research and technology initiatives can help in gaining stakeholder support.	Medium

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Regulatory changes affecting research funding	Stringent restrictions /requirements to or from Grant and Donor offering entities	There is a significant likelihood of such changes as they can arise from shift in Government, budgetary allocations, or changes in policy focus.	Increased compliance costs, shifts in funding priorities, and potential reductions in available research grants	Strategic Panning: The School of Engineering may need to revise their strategic plan to accommodate new regulatory environments, which can disrupt ongoing research and delay future initiatives. Competitiveness: Changes in funding regulations can impact the school's ability to compete for top researchers and projects, both nationally and internationally.	Medium	Periodical updating and compliance to requirements, advocating for policies that support robust research funding and creating contingency plans to mitigate potential negative impacts. Engaging with policy makers, participating in public discourse, and forming coalitions with other institutions can also be an effective measure for navigating a changing regulatory landscape.	Low
Objective 2: To improve teaching and staff Capacity.							

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Inadequate training resources	Outdated teaching methods	The likelihood is relatively high, especially if the school is facing budget constraints or rapid changes in educational technology or methods.	Suboptimal teaching and student dissatisfaction	Student Outcomes: Inadequate training can lead to lower student engagement and achievement, affecting the school's overall performance. Institutional Reputation: The reputation of the school may suffer if it becomes known for subpar teaching and outdated practices.	High	Prioritizing investment in training and development programs through leveraging open educational resources, adopting lean learning practices to maximize the efficiency of training, and ensuring the training is aligned to the school's strategic goals and the latest developments in Engineering. Regular assessment of the effectiveness of training programs and adapting them to meet the evolving needs of industry and staff.	Medium

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Resistance to change	Low faculty engagement	The likelihood of encountering resistance is high, particularly when changes challenge established traditions and practices.	Resistance can impede the adoption of new teaching methodologies, negatively affecting the quality of education.	Student Learning: If teaching practices do not evolve, student learning experiences may suffer, potentially impacting their academic success and future opportunities. Adaptability: The school's inability to adapt to change can leave it ill-prepared for future challenges in the Engineering landscape.	High	Engaging stakeholders early in the change process, providing clear communication about the benefits of the change, and offering support and training to ease the transition. Additionally, fostering a culture of openness and continuous improvement.	Low

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Insufficient faculty development programs	Inadequate professional development opportunities	Relatively high, particularly if the school is facing financial constraints or has not prioritized staff development as part of their strategic planning.	The school may lack current knowledge of best practices in pedagogy, reducing the quality of instruction and student learning outcomes.	Student success: Students may receive an education that does not employ the most effective teaching methods, which can impact their success and preparedness for the workforce. Competitiveness: Without ongoing faculty development, the school of Engineering may fall behind in educational innovation, making them less competitive in the Engineering landscape.	High	Investing in comprehensive faculty development programs that are aligned with the school's strategic goals and the latest educational trends through providing regular training on new teaching technologies, pedagogical methods, and opportunities for scholarly advancement. Fostering a culture that values continuous learning and professional growth can also help in enhancing teaching quality and staff capacity.	Medium
Objective 3: To develop and strengthen partnerships with stakeholders.							

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Misaligned expectations	Limited engagement from stakeholders	High as partnerships often involve multiple stakeholders with diverse goals and perspectives.	Long-term relationships maybe strained or damaged if expectations are not adequately managed and aligned from the outset.	Reputation: The school's reputation may suffer if partnerships are perceived as unsuccessful or if conflicts become public. Future collaborations: Potential future partners maybe hesitant to engage with the school if they perceive a risk of misaligned expectations.	High	Engaging in clear and open communication with all stakeholders from the beginning. Establishing shared goals, regular check-ins, and flexible frameworks for adjusting expectations can help ensure that all parties are aligned, and that the partnership is positioned for success.	Medium

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Communication gaps	Disagreements on goals	Quite high as partnerships often involve a variety of stakeholders with different backgrounds, expectations, and communication styles.	Poor communication may lead to misunderstandings, misaligned goals, and ineffective collaboration.	Project Outcomes: Projects may fail to meet the objectives or deliver on time and within budget due to miscommunication. Strategic Goals: The school's strategic goals maybe compromised if partnerships do not effectively contribute to their achievement.	Medium	Establish clear communication channels and protocols. Regular meetings, transparent processes, and the use of collaborative tools can help ensure that all stakeholders are on the same page. Investing in relationship management and intercultural communication training can enhance mutual understanding and cooperation among diverse stakeholders. Assigning or allocating a dedicated team or individual for managing partnerships and ensuring consistent and effective communication.	Low

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Conflicting interests	Insufficient resource allocation	Highly likely especially when partners have different goals, expectations, or financial interests.	Legal challenges or financial repercussions if conflicting interests are not properly addressed.	Decreased morale: Perceptions of favoritism or unfair treatment due to unaddressed conflicting interests can negatively affect morale and productivity within the school. Operational Disruptions: Conflicts related to commitment, where individuals prioritize external commitments over their school responsibilities can impact operations and productivity.	High	Implement and enforce clear conflicting interests' policies and procedures. Transparency in disclosing potential conflicts to all relevant stakeholders, including students, faculty and the public is crucial.	Medium
Objective 4: To cultivate and provide a pragmatic learning experience.							

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Outdated teaching methods	Declining enrollment	High likelihood that outdated methods will not engage students effectively or cater to diverse learning styles.	There could be a disconnect between the knowledge imparted and the skills required in the job market like critical thinking, problem-solving, communication skills, and adaptability, leading to graduates being underprepared for employment.	The school may see a decline in enrollment as students seek more modern and relevant educational experiences elsewhere. Graduates may struggle to find employment, leading to a devaluation of the school's reputation and the perceived value of its degrees.	High	Adopting active learning methodologies that encourage student engagement and participation. Updating curriculum to include current and relevant content that prepares students for the future workforce. Providing professional development for educators to help them transition to more effective teaching strategies.	Low
Inadequate faculty training	Ineffective course delivery	Highly likely that inadequately trained faculty will struggle with effective teaching methodologies, especially in an online environment.	Inadequate training can lead to a failure to meet educational objectives and prepare students for real-world challenges.	A decline in the school's reputation, lower student retention, and graduates who are not well-prepared for the workforce. There could also be financial implications for the school if enrollment decreases due to the perceived quality of education.	Medium	Investing in comprehensive faculty development programs that cover modern teaching techniques, especially for online learning. Ensure ongoing support and training for faculty to adapt to new educational technologies and pedagogies.	Low

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Lack of student engagement	Low student performance	Highly likely, as student disengagement is a prevalent issue across various educational settings, regardless of whether teaching is in-person or online.	Disengaged students are less likely to absorb course material effectively, leading to poorer academic outcomes and lower overall satisfaction with their educational experience.	A potential decrease in the school's reputation, challenges in attracting new students, and producing graduates who may not be fully prepared for their professional careers. There could be a financial impact due to reduced retention rates.	Medium	Implement teaching strategies that foster active learning and real-world application of knowledge. Encourage faculty to create engaging content and deliver it with energy and passion. Shorten lecture lengths and incorporate timely current events or discussions to maintain student interest.	Low
Objective 5: To streamline institutional and management processes.							
Complexity of existing processes	Inefficiencies	It is highly likely that complex processes will hinder efficiency and adaptability.	Slower decision-making, reduced innovation, increased costs, resource allocation inefficiencies and difficulty in implementing new technologies or pedagogies	A loss of competitive edge in the higher education market, as institutions with streamlined processes can adapt more quickly to changes. There could be a negative effect on student and staff satisfaction, as cumbersome processes can lead to frustration and a sense that the school is not responsive to their needs.	High	Conducting a thorough review of existing processes to identify areas for simplification and improvement. Implementing change management strategies to guide the transition to more streamlined processes. Engaging stakeholders in the process to ensure buy-in and minimize resistance to change.	Medium

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Resistance to change	Bottlenecks	Highly likely, especially when it involves altering long-standing traditions and practices	Stagnation in institutional growth, inefficient use of resources, failure to capitalize on opportunities for improvement and the inability to adapt to evolving educational needs.	Loss of competitive advantage as other institutions that are more adaptable move forward. There could be a negative impact on student outcomes and satisfaction if the school cannot provide an up-to-date and relevant educational experience.	High	Engage in open communication with all stakeholders to understand the sources of resistance and address concerns. Develop a clear vision for change that aligns with the school's goals and values. Provide support and training for staff and faculty to ease the transition and foster a culture of continuous improvement.	Medium
Inadequate communication	Delays in administrative tasks	Highly likely, as communication challenges are common in complex organizations, and school of Engineering is no exception.	Misunderstandings, delays in process improvements, missed opportunities for innovation and improvement, as well as frustration among faculty, staff, and students and a general lack of coordination among departments.	A decline in institutional efficiency and effectiveness, potentially affecting the quality of education and student outcomes. There could also be a negative impact on the institution's reputation, as stakeholders may perceive it as disorganized or out of touch with modern management practices.	High	Develop and implement a comprehensive communication strategy that includes clear protocols for information sharing and feedback. Invest in training for staff and faculty to improve communication skills and ensure that everyone is on the same page regarding institutional changes.	Medium

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Objective 6: To mobilize resources for the development of the School of Engineering.							
Inadequate funding	Increased operational costs and reduced public funding	Highly likely, as the school may face financial challenges due to reduced public funding and increased operational costs.	Cuts in programs, reduced staff, and limited resources for student services and research. Hindrance to the school's ability to invest in new technologies and infrastructure, which are crucial for modern education.	Delays in infrastructural development Decline in educational quality, which can affect the institution's reputation and its ability to attract and retain students. There could also be a negative impact on the broader economy, as Engineering is a key driver of innovation and workforce development.	High	Explore alternative funding sources, such as partnerships with industry, alumni donations, and grants. Implement strategic budgeting to align financial resources with institutional priorities and ensure the most critical areas are funded.	Low

STRATEGIC RISKS	RISK INDICATOR(S)	LIKELIHOOD	IMPACT	IMPACT/CONSEQUENCE (NARRATIVE)	INHERENT RISK RATING	MITIGATION MEASURES	RESIDUAL RISK RATING
Donor dependency	Budget shortfalls	The likelihood of donor dependency is moderate to high, especially if there has been a decrease in traditional funding sources and have turned to philanthropic contributions as a significant part of the school's revenue	Heavy reliance on donors may influence the school policies and priorities, potentially leading to a misalignment with the school's core academic mission. Donor dependency can also lead to financial instability if significant contributions are reduced or withdrawn.	Compromise in academic independence and integrity, as the school might feel pressured to align with donors' interests. There could also be a reduction in diversity of thought and research if donor interests dictate the areas of focus for the school.	Medium	Strive for a balanced and diversified funding portfolio to reduce the influence of any single donor or group of donors. Establishing clear guidelines and ethical standards for accepting and utilizing donations to protect the school's autonomy and academic freedom.	Low
Misalignment with institutional goals	Delays in project funding	The likelihood of this risk is moderate to high, as aligning resource mobilization with institutional goals requires strategic planning and clear communication, which can be challenging to achieve consistently	Misalignment may lead to inefficient use of resources, wasted efforts, and missed opportunities for development that aligns with the school's mission and vision.	Reduced effectiveness in achieving strategic objectives, diminished institutional reputation, and potentially, a loss of trust among stakeholders, including students, faculty, and donors.	Medium	Ensuring that there is a strong alignment between resource mobilization strategies and the school's long-term goals. Engaging in regular reviews and adjustments of strategies to keep them aligned with evolving institutional objectives and external conditions.	Low

Risk Rating	Colour Code
High	
Medium	
Low	

8. MONITORING AND EVALUATION FRAMEWORK

Monitoring and Evaluation (M&E) is critical for the successful implementation of this Strategic Plan. This will ensure, across board, visibility of the progress being made in the attainment of the plan targets. It will also support more real-time informed decision making by all stakeholders. Monitoring the plan shall include results attained, outputs delivered and impact of the various interventions and progress in implementation of strategic initiatives among others.

SoE will conduct annual reviews to assess progress against annual targets and if there are specific course corrections that need to be made early to ensure optimal delivery during the planning period. A detailed mid-term evaluation shall be conducted to assess progress made and highlight any challenges being experienced or emerging developments that may affect the attainment of set targets.

A final review of the Plan shall be conducted at the end of the planning period, with a focus on outcomes, the extent to which the set targets have been achieved and lessons learnt during the implementation of this Plan. The final review shall also inform the development of the next Strategic Plan beyond 2030. The table below shows an excerpt of the developed monitoring framework that will closely monitor over the strategic plan period.

Table 10: Monitoring and Evaluation Framework

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Strategic Perspective: Stakeholder									
Enhanced Engagement and Partnership	To develop and strengthen partnerships with stakeholders	Corporate Relations Office	Number of staff hired in the corporate relations office						
		Industry Sponsored Projects	Number of Industry Sponsored Projects						
		Internship placements	Number of Industry Internship Placements MoU						
		Mentorship Programs	Number of Mentorship Programs						
		Conferences and workshops	Number of conferences and Workshops with industry						
		Study tours	Number of Study Tours with Industry partners						

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
		Guest lectures	Number of Industry led Guest lectures						
		Graduate training programs	Number graduate programs coined with industry						
		Gender Parity in stakeholder engagement	Percentage of Women in Academic-Industry collaboration programs						
			Female Percentage Representation in Guest lectures and Workshops						
			Percentage portion of Female mentors from Industry						
			Female Percentage Representation in Guest lectures and Workshops						
			Satisfaction level of female participants with Industry Engagement						
Student Learning Experience	To cultivate a pragmatic learning experience.	Student career development	Percentage of student satisfaction with career services						
		Increased student employability	Percentage of students gainfully employed within the first three months of graduation						
		Student with skills desired by the market	Percentage of employer satisfaction with student skillset after internship and graduate training						
		Improved learning outcomes	Number of surveys on student satisfaction in course delivery and services by the careers office						
		Evening and weekend programs for Masters and other short courses.	Number of programs with evening and weekend options						

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
		Internship placements	Percentage of student satisfaction with internship program (placement support, facilitation, and training)						
		Gender Parity in Student learning experience	Percentage of female students gainfully employed within the first six months of graduation						
			Percentage of female students in leadership positions						
			Percentage of female students satisfied with mentorship programs						
			Percentage utilisation of academic support services by female students						
Strategic Perspective: Internal Processes									
Operational Excellence	To streamline institutional and management processes.	Improvement of operational efficiency and effectiveness	Percentage of processes reengineered						
			Percentage of processes automated and standardized						
		Improved student and staff experience access to services	Percentage of students satisfied with SoE management and institutional processes						
			Percentage of staff satisfied with SoE management and Institutional Processes						
		Enhanced E-learning Delivery	Number of students enrolled in e-learning programs						
			Percentage satisfaction of students in e-learning programs						
		Proper Induction and Training	Number of Induction and Training programs for staff						
		Improved Lab resources	Percentage of lab technicians in establishment filled						

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
			Percentage of Equipment that is fit for teaching and research						
			Percentage of Equipment maintained in line with maintenance requirements						
Strategic Perspective: Finance									
Financial Stewardship	To mobilise resources for the development of the School of Engineering	Grants	Percentage increase in grant funding						
		Industry Donations	Percentage of increase industry donations						
Strategic Perspective: Institutional Capacity									
Teaching and Staff Capacity	To improve teaching and staff capacity.	Conducive environment for teaching staff	Percentage satisfaction of teaching staff with remuneration and facilities						
		Improved staffing resources	Percentage of staff positions in establishment filled						
		Curricula aligned with market and industry needs	Number of programmes whose curricula has been reviewed in line with guidelines						
			Number of Programmes which have integrated Competency Based Learning and student centered assessments						
		Teaching staff with practical experience	Number of staff registered with professional bodies						
			Percentage of staff with practical training						
		Exchange Programs	Number of visiting scholars received by the school						

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
			Number of staff trained with industry partners						
		Enhanced Graduate Program Support	Percentage graduate student completion rate with required time						
			Percentage satisfaction of graduate students with support services						
		Gender Parity in Teaching and Staff Capacity	Percentage increase in female staff hired in establishment						
			Percentage increase in female staff in training programs						
			Percentage of female staff in leadership roles						
			Female staff turnover rate						
Research, Innovation and Knowledge Transfer	To foster the improvement of research, innovation, and adoption of advanced technologies	Development of the School of Engineering research agenda.	School research agenda						
		Establishment of research and coordination unit.	Research and Coordination Unit						
		Academia-Industry Joint research projects	Number of academia-industry joint research projects						
		Increased Technological Innovations	Number of Patents registered						
			Number of patents commercialized						
			Number of students receiving awards and IP rights						
		Increased Research Activities	Number of staff publishing in peer reviewed international Journals						
			Number of research proposals engendered						

Strategic Focus	Strategic Objective	Key Result	Performance Measure	Target					
				2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
			Number of research proposals approved from various funding agencies						
		Knowledge Transfer	Number of Guest lectures and seminars with government and Industry						
			Number of study trips and knowledge transfer partnership activities						
		Gender Parity in Research, Innovation and Knowledge Transfer	Number of Female staff participating in knowledge transfer partnerships and exchange programs						
			Percentage of Female Principal Investigators in Research projects						

The Monitoring and Evaluation framework of the Strategic Plan will address the following:

1. Check whether the defined objectives are being achieved in a timely manner.
2. Level of resourcing of the implementation teams within SoE to achieve the specified results.
3. Required course corrections needed to realign the Strategic Focus towards effective achievement of the results.
4. Extent to which objectives and results will be achieved at existing implementation pace.
5. Lessons learned for future quality improvement.
6. Recommendations for better implementation to achieve the desired results including specific responsibility centers for effective implementation and ownership.

All M&E findings shall be disseminated to the stakeholders using different approaches as may be appropriate.

8.1 Monitoring and Evaluation Arrangements

8.1.1 Monitoring

The Strategic Plan will be monitored through the collection, update and reporting of information to key decision makers and stakeholders using an automated platform for efficient processing and visibility. Outcome and key result indicators will be obtained through structured surveys, while output, input and process indicators and key results will be obtained from implementation reports.

Period reports will be provided on a monthly/quarterly basis highlighting key performance achievements and challenges for management's attention.

8.1.2 Evaluation

a) Annual Performance Review

Annual reviews to identify good practices and lessons learned and provide feedback to management as a basis for possible implementation adjustments will be undertaken.

b) End of Term Evaluation

An end of term evaluation will be undertaken to assess the extent to which the Objectives have been achieved under the planning cycle 2024 to 2030. This evaluation will also determine any gaps that need to be addressed in the next planning cycle.

At the minimum, reporting on the Strategic Plan will be done quarterly to the leadership of the university. An annual report covering the entire Financial Year under review shall be produced during the first quarter of the following financial year.

9. APPENDICES

9.1 SOE INSTITUTIONAL SCORECARD

Table 11: SOE Institutional Scorecard

Strategic Objective	Performance Measure	Target					
		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Strategic Perspective: Stakeholder							
To develop and strengthen partnerships with stakeholders	Number of staff hired in the corporate relations office						
	Number of Industry Sponsored Projects						
	Number of Industry Internship Placements MoU						
	Number of Mentorship Programs						
	Number of conferences and Workshops with industry						
	Number of Study Tours with Industry partners						
	Number of Industry led Guest lectures						
	Number graduate programs coined with industry						
	Percentage of Women in Academic-Industry collaboration programs						
	Female Percentage Representation in Guest lectures and Workshops						
	Percentage portion of Female mentors from Industry						
	Female Percentage Representation in Guest lectures and Workshops						
	Satisfaction level of female participants with Industry Engagement						
To cultivate a pragmatic learning experience.	Percentage of student satisfaction with career services						

Strategic Objective	Performance Measure	Target					
		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
To cultivate a pragmatic learning experience.	Percentage of students gainfully employed within the first three months of graduation						
	Percentage of employer satisfaction with student skillset after internship and graduate training						
	Number of surveys on student satisfaction in course delivery and services by the careers office						
	Number of programs with evening and weekend options						
	Percentage of student satisfaction with internship program(placement support, facilitation and training)						
	Percentage of female students gainfully employed within the first six months of graduation						
	Percentage of female students in leadership positions						
	Percentage of female students satisfied with mentorship programs						
	Percentage utilisation of academic support services by female students						
Strategic Perspective: Internal Processes							
To streamline institutional and management processes.	Percentage of processes reengineered						
	Percentage of processes automated and standardized						
	Percentage of students satisfied with SoE management and institutional processes						
	Percentage of staff satisfied with SoE management and Institutional Processes						
	Number of students enrolled in e-learning programs						

Strategic Objective	Performance Measure	Target					
		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Percentage satisfaction of students in e-learning programs						
	Number of Induction and Training programs for staff						
	Percentage of lab technicians in establishment filled						
	Percentage of Equipment that is fit for teaching and research						
	Percentage of Equipment maintained in line with maintenance requirements						
Strategic Perspective: Finance							
To mobilise resources for the development of the School of Engineering.	Percentage increase in grant funding						
	Percentage of increase industry donations						
Strategic Perspective: Institutional Capacity							
To improve teaching and staff capacity.	Percentage satisfaction of teaching staff with remuneration and facilities						
	Percentage of staff positions in establishment filled						
	Number of programmes whose curricula has been reviewed in line with guidelines						
	Number of Programmes which have integrated Competency Based Learning and student centered assessments						
	Number of staff registered with professional bodies						
	Percentage of staff with practical training						
	Number of visiting scholars received by the school						
	Number of staff trained with industry partners						

Strategic Objective	Performance Measure	Target					
		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Percentage graduate student completion rate with required time						
	Percentage satisfaction of graduate students with support services						
	Percentage increase in female staff hired in establishment						
	Percentage increase in female staff in training programs						
	Percentage of female staff in leadership roles						
	Female staff turnover rate						
To foster the improvement of research, innovation and adoption of advanced technologies	School research agenda						
	Research and Coordination Unit						
	Number of academia-industry joint research projects						
	Number of Patents registered						
	Number of patents commercialised						
	Number of students receiving awards and IP rights						
	Number of staff publishing in peer reviewed international Journals						
	Number of research proposals engendered						
	Number of research proposals approved from various funding agencies						
	Number of Guest lectures and seminars with government and Industry						
	Number of study trips and knowledge transfer partnership activities						
	Number of Female staff participating in knowledge transfer partnerships and exchange programs						

Strategic Objective	Performance Measure	Target					
		2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Percentage of Female Principal Investigators in Research projects						
	Percentage of publications authored and co-authored by female staff						

9.2 DEPARTMENTAL SCORECARDS

Table 12: Department of Civil And Environmental Engineering

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
1. To foster the improvement of research, innovation, and adoption of advanced technologies.	1.1 To establish partnerships and collaborations with industry and research organisations and universities	Resource mobilisation from industry partners through research grants	No. of MoU signed	1	1	1	1	1
		Training and sponsoring of BSc, MSc and PhD students through research collaborations	No. of Msc. students trained / sponsored	3	3	3	3	3
		Collaboration with industry on innovation	No. of collaborations and research innovations taken up by industry	2	2	2	2	2
	1.2 To promote cutting-edge research in department	Promote emerging technologies research focusing on fields such as AI, machine learning, modelling	No. of research done/Progress of research	30%	50%	100%		

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
		Establish research centres (road maintenance unit, water research centre)	Progress in establishing research centres	5%	20%	60%	100%	
2. To improve teaching and staff capacity.	2.1 To ensure continuous capacity improvement of departmental staff	Regular staff training on use of equipment, pedagogy etc.	No. of departmental training workshops	2	2	2	2	2
		Encourage continuous professional development of staff members through refresher courses	No. of certificates got	5	5	5	5	5
		Participation in research seminars and trainings	Attendance of training by staff	10	10	10	10	10
	2.2 To invest in state of art equipment and infrastructure	Lobby for funding to maintaining equipment	Availability of budget for maintaining equipment (% of total required)	20	30	50	50	50

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
			No. of research grants with provision for equipment	1	1	2	2	2
	2.3 Improve teaching facilities, infrastructure and capacity for practicals.	Ensure availability of teaching materials, laptops, projectors etc.	Availability of budget of teaching materials per semester (% of total required)	80	90	95	95	95
		Lobby for more staff and tutorial assistants to assist with assignments, tutorials and practicals	% coverage of courses with tutorial assistants and technicians	40%	50%	70%	80%	80%
3. To develop and strengthen partnerships with stakeholders.	3.1 To establish partnerships and collaborations with industry and research organisations and universities	Resource mobilisation using research grants	No. of MoU signed	1	1	1	1	1
		Training of students through research collaborations	No. of students (MSc and BSc) trained with research grants	2	2	2	2	2
			No. of graduate trainees employed	2	2	2	2	2

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
			No. of stakeholders engaged in joint assessment of students in research seminars and research project presentations	5	5	5	5	5
	3.2 To increase stakeholder engagement Capacity development of stakeholders	Dissemination of research findings with stakeholders	No. of dissemination workshops or seminars	2	2	2	2	2
		Establish short trainings for industry partners and undertake joint training workshops with industries	No. of staff attending and contributing to stakeholder workshops	3	3	3	3	3
4. To cultivate a pragmatic learning	4.1 To improve infrastructure in laboratories,	Upgrade staff offices and classrooms with furniture, painting	% of staff reporting improved staff offices	20	30	40	50	50

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
experience.	staff officers and classrooms	lighting and equipment	No. of lecture rooms painted	3	3	3	3	3
			No. of furniture items (desks, chairs, cabinets) replaced	3	3	3	3	3
5. To streamline institutional and management processes.	5.1 To ensure equitable representation of departmental staff at school and college planning committees	Appoint specific staff members to represent the department on various committees and establish formal reporting structure.	No. of staff in department represented at school committees	3	3	3	3	3
6. To mobilise resources for the sustenance and development	6.1 To encourage staff to apply for research grants	Responding to research grants	No. of applications made	5	5	5	5	5
		Establish operational research groups in the department	No. of grants won by different research groups	1	1	1	1	1

Strategic Objective	Department Objective	Initiative	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
of the School of Engineering.		Establish partnerships with industry, research institutions and other tertiary institutions (local and international)	No. of research partnership MoU signed	1	1	1	1	1

Table 13: Department Of Electrical & Electronics Engineering / Department Of Computer & Communications Engineering

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
1. To foster the improvement of research, innovation, and adoption of advanced technologies.	1.1 To develop and improve area specific research groups within the department	Create and operationalise research groups	Working research groups	20%	50%	80%	100%	
		Innovation awards in collaboration with industry partners	Number of innovation awards/challenges per academic year	1	1	1	2	2
2. To improve teaching and staff capacity.	2.1 Promoting Collaborative Teaching Practices	Invitation of guest lectures from Industry	Number of guest lectures per academic year	2	2	3	3	3
		Create partnerships for staff mobility	Number of opportunities for staff mobility per academic year	2	2	2	3	3

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
3. To develop and strengthen partnerships with stakeholders.	3.1 To develop and extend collaborative partnerships with internal and external stakeholders	Signing MOUs with partner Institutions/organizations	No. of MOUs signed	3	4	4	5	5
4. To cultivate a pragmatic learning experience.	4.1 To enhance problem-based learning methods and approaches	Staff giving more Project-Based Assignments and Challenges	No. of course units adopting problem-based learning methods and approaches	60%	80%	100%	100%	100%
5. To streamline institutional and management processes.	5.1 To increase awareness of institutional and management processes	Conduct awareness sessions for staff members	Number of awareness sessions per academic year	1	2	2	2	2
6. To mobilise resources for the	6.1 To prepare research grant	Identification of relevant grant calls	Number of identified grant calls	3	3	4	5	6

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
sustenance and development of the School of Engineering.	proposals	Development and submission of grant proposal	Number of submitted grant applications	3	3	4	5	6

Table 14: Department Of Mechanical Engineering

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
1. To foster the improvement of research, innovation, and adoption of advanced technologies.	1.1 To develop a progressive research agenda	Encourage members to participate in grant writing	Grant Applications made	7	7	8	9	10
		Encourage every member of staff to participate in research activities. Advocate for the state of lab and workshop facilities	Number of research outputs (publications, innovations, IPs)	20	25	30	35	40
	1.2 To train and graduate entrepreneur students through collaboration with CTDD	Train students through the incubation of ideas into a product	Number of Students trained					
	1.3 To develop a department IPR coordinating office	Adopt the Triple HELIX model	Number of collaboration agreements signed					

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
2. To improve teaching and staff capacity.	2.1 To promote staff teaching and research capacity	Refresher courses	Attended refresher courses	5	6	7	8	10
		Inter university collaborations	Number of university collaborations					
		Exchange visits	Number of exchange visits					
	2.2 To align staff within the departmental research centres		No of approved department partnerships with other departments					
3. To develop and strengthen partnerships with stakeholders.	3.1 To advocate for improved academia-industry-Government office	Allow for engineering experts from government and industry offer special guest lectures as part of the syllabus	No of guest lectures	5	6	7	8	10
		Student placement in engineering-based companies for training	No of industrial placements					

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
		Create a platform for job opportunities and applications in engineering departments and firms	No of students graduating with assured/secured jobs					
4. To cultivate a pragmatic learning experience.	4.1 To advocate for state-of-the-art teaching and practical facilities	Create a good classroom environment for physical lectures	Improved classrooms	4	5	6	8	10
			Improved lab facilities					
		Improve facilitation for online teaching	Feedback mechanisms of learning experiences					
		Enhance practical learning	Enhanced Exam and practical sessions					
	4.2 To advocate for reduction of the contribution of exams in the assessment	Exam contribution from 60% to 30% and the rest for 70% for practical and Assignments						

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
	4.3 To create progressive learning measures							
5. To streamline institutional and management processes.	5.1 To decentralise various administrative functions of the department	Streamline administrative responsibilities in the department to be in line with the strategic objectives of the department	Smooth execution of departmental activities (Exams, Internships, Laboratories, ICT activities, Mentorship, Industry relations, Reporting)	8	8	8	8	8

Strategic Objective	Department Objective	Initiatives	Performance Measure	Target				
				2025/26	2026/27	2027/28	2028/29	2029/30
6. To mobilise resources for the sustenance and development of the School of Engineering.	6.1 To develop a platform for staff, grant application	• Participate in extensive grant write shops • Participate in grant applications • Encourage, if available, sale of IPs	# grant applications made # Grants successfully secured #Amount funds generated as grant admin fees (USD)	5000	10000	20000	30000	50000

9.3 List of Organisations/Individuals Consulted in the Development of the Strategic Plan

Table 15: List of Organizations/Individuals Consulted in the Development of the Strategic Plan

#	Organization	Representative(s) met
1	Makerere University, School of Engineering	Assoc. Prof. Moses Musinguzi
2	Makerere University, School of Engineering	Professor Dorothy Okello
3	Makerere University, School of Engineering	Dr. Abubakar Waswa
4	Makerere Engineering Society	Mr. Mutala Travis
5	Makerere University, School of Engineering	Dr. Phillip Nyenje
6	Makerere University, School of Engineering	Dr. Robinah Kulabako
7	Makerere University, School of Engineering	Dr. Michael. Lubwama
8	Makerere University, School of Engineering	Assoc. Prof. Peter Olupot
9	Makerere University, School of Engineering	Dr. Joseph. Seruganda
10	Makerere University, School of Engineering	Dr. Swaib Semiyaga
11	Uganda Institute of Professional Engineers	Engineer Bosco
12	Uganda Institute of Professional Engineers	Mr. Julius Kintu
13	Uganda Small Scale Industries Association	Mr. Joseph Sekandi
14	CG Engineering Consults	Mr. Gavamukulya Charles
15	MBW	Engineer Saul Matege
16	Turner and Townsend	Mr. Gava Louis
17	Engineering Registration Board	Engineer Dr. Isaac Mutenyo
18	Uganda Communications Commission	Engineer Irene Kagwa
19	Kampala Capital City Authority	Engineer David Luyimbazi