



**Audit Report
on
Mangosuthu University of Technology**

**Report of the Higher Education Quality Committee (HEQC)
to Mangosuthu University of Technology**

Executive Summary

January 2012

1 Quintin Brand Street, Persequor Technopark, Brummeria, Pretoria, 0184.
P.O. Box 94, Persequor Park, 0020, South Africa
Tel: +27 12 349 3853 Fax: + 27 12 349 3927, E-mail: ed@che.ac.za
Website: <http://www.che.ac.za>

HEQC Audit Report Number 34

©2012 Council on Higher Education

1 Quintin Brand Street
Persekor Technopark
Brummeria
Pretoria
0184

PO Box 94
Persekor Park
0020
South Africa

Tel: +27 12 349 3853

Fax: +27 12 349 3927

Website: <http://www.che.ac.za>

Acronyms

AP	Audit Portfolio
APC	Academic Planning Committee
CAO	Central Applications Office
CE	Community Engagement
CED	Cooperative Education Directorate
CESM	Category of Educational Subject Matter
CHE	Council on Higher Education
CSCD	Centre for Student Counselling and Development
DBA	Diagnostic Baseline Analysis
DoE	Department of Education
DHET	Department of Higher Education and Training
ECP	Extended Curriculum Programme
ETQA	Education and Training Quality Assurer
FTEs	Full-Time Equivalents
HEMIS	Higher Education Management Information System
HEQF	Higher Education Qualification Framework
HEQC	Higher Education Quality Committee
HoD	Head of Department
HR&D	Human Resources and Development
ICT	Information and Communication Technology
IF	Institutional Forum
IRD	Institute for Rural Development

IRDCE	Institute for Rural Development and Community Engagement
ITS	Integrated Tertiary Software
KZN	KwaZulu-Natal
LC	Language Centre
MUT	Mangosuthu University of Technology
NEHAWU	National Education, Health and Allied Workers' Union
NPHE	National Plan for Higher Education
NSC	National Senior Certificate
NSFAS	National Student Financial Aid Scheme
PQM	Programme and Qualification Mix
PRETECH	Pre-Technicians
QMD	Quality Management Directorate
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
SASCE	Southern African Society for Cooperative Education
SER	Self-Evaluation Report
SERTEC	Certification Council for Technikon Education
SRC	Students' Representative Council
TSC	Technology Station in Chemicals
UoT	University of Technology
VC	Vice-Chancellor
VP	Vice-Principal
WIL	Work-Integrated Learning

OVERVIEW OF THE AUDIT

Introduction

The Higher Education Quality Committee (HEQC) of the Council on Higher Education (CHE), which was constituted as the Quality Council for Higher Education in terms of the *Higher Education Amendment Act of 2008* and the *National Qualifications Framework Act of 2008*, has statutory responsibility to conduct institutional audits of higher education institutions.

The Audit of Mangosuthu University of Technology (MUT) was conducted by the HEQC in terms of its mandate. This document reports on the audit process and findings based on the Self-Evaluation Report, documentary appendices provided by MUT, supplementary documentation requested from the University, observations made during a preliminary campus site visit on 11 April 2011, and interviews and observations made during the audit visit that took place between 8 and 13 May 2011. The Audit Panel also consulted the Institutional Profile of MUT prepared by the Monitoring and Evaluation Directorate of the CHE.

This Report comprises an overview of the audit visit, the findings of the Panel in relation to the audit criteria set by the HEQC, and a list of commendations and recommendations that are based on the findings of the Audit Panel.

The Audit process

In 2007 the Executive Director of the HEQC secured the consent of the Vice-Chancellor and the executive management team at MUT that the University would participate in an institutional audit in October 2009.

Preparation for the audit was launched on 14 March 2009; the HEQC sent a team from its Institutional Audits Directorate on an audit preparatory visit to the University in August 2009. The University established five task teams to deal with the various focus areas of the audit preparations and a project management team comprising all convenors of the task teams was established under the leadership of the director for quality management (SER: 15). The University requested an extension that was granted, resulting in the postponement of the audit to May 2011.

An Audit Steering Committee was constituted by the current Vice-Chancellor in his capacity as Administrator appointed by the Minister of Higher Education and Training in terms of Section 41A of the Higher Education Act (101 of 1997, as amended) in April 2010. The University, in the process of ensuring maximum institutional participation, used the theme "Let's all get involved in the pursuit of excellence" for its self-evaluation process (SER: 15).

MUT conducted its institutional self-evaluation in the agreed time and produced an Audit Portfolio for review by the HEQC Audit Panel. The final Audit Portfolio, which comprised the Self-Evaluation Report and supporting documentation, was submitted to the HEQC, together with an electronic copy on 22 February 2011.

The HEQC constituted an Audit Panel consisting of senior academics and academic administrators from the higher education community, all of whom had taken part in auditor preparation workshops run by the HEQC. An audit portfolio meeting was convened by the HEQC in Pretoria on 25 and 26 March 2011, at which the Audit Panel considered the Audit Portfolio in preparation for the audit visit to MUT. At this meeting, the Audit Panel identified additional documents to be requested from the University prior to the site visit.

The CHE sent a team from its Institutional Audits Directorate on an audit preparatory visit to the University on 28 March 2011. The format and programme for the audit visit and other details of the audit were also discussed and generally agreed to by the senior management of MUT.

A sub-Panel comprising Professors Schultz and Webb and Drs Fourie and Lalendle, visited the University on 11 April 2011 and inspected the infrastructure that supports teaching and learning in preparation for the main audit visit. The sub-panel, during this visit, heard a presentation from the senior management of MUT on the history of the institution and the state of the infrastructure that supports teaching and learning, including university residences available to students. Students also made a presentation on their experiences of the University's physical infrastructure and its facilities.

The main site visit took place from 8 May to 13 May 2011. The Audit Panel conducted interviews with a wide range of MUT staff, students, and other stakeholders. The interviews were completed on 12 May 2011, and oral feedback was given to the Vice-Chancellor and the management team on 13 May 2011.

Open sessions were made available for staff members, students or members of the community to meet the Audit Panel and make submissions. Three staff members made use of the opportunity to meet with the Panel.

In all, the Panel interviewed about 220 people in 32 interview sessions during the audit visit, including:

- Council members
- The Vice-Chancellor and members of his executive management team
- Members of Senate and other Senate committees
- Deans of faculties
- Heads of department
- Academic and academic support staff
- Professional and administrative staff
- Undergraduate students
- Representatives of the staff union
- Members of the Students' Representative Council
- Civic and community representatives; and
- Alumni.

This report reflects the audit findings based on the Self-Evaluation Report of MUT, supporting documents, the profile of MUT prepared by the Monitoring and Evaluation Directorate of the CHE, supplementary documentation requested from the Institution, and interviews and observations made during the audit visit. Every effort has been made to understand the quality arrangements at the University at the time of the audit visit, and to base the Panel's conclusions on the documentation submitted, the interviews held, and the Panel's observations.

It is expected that the University will use these findings to strengthen its internal quality management systems and thereby facilitate the improvement of the quality of its core academic activities. Decisions about the manner in which this is done, and the priority accorded to the various recommendations, is the prerogative of the University. The HEQC expects the University to submit an improvement plan, based on the Audit Report, five months after the publication of the Audit Report.

The HEQC would like to thank MUT for the co-operative manner in which it participated in the audit process. The HEQC also wishes to express its appreciation to the University for the openness and confidence demonstrated by the Vice-Chancellor and management in allowing the Audit Panel to conduct its work. Efficient preparation by the University resulted in a trouble-free audit that enabled the auditors to focus their attention on the main purposes of the audit. The hospitality and assistance of the University staff is greatly appreciated. We would like to thank Dr Makua and Mrs Ndimande and their team in particular for the preparation of the documentation, as well as for their co-operation and helpfulness throughout the audit process.

Executive Summary

Brief overview of the Mangosuthu University of Technology

1. Mangosuthu University of Technology is one of five universities in KwaZulu-Natal (KZN), and is located in the Province with the second highest population in the country which is about 21% of the total population of South Africa. The University is located in Umlazi Township which is also the biggest township in the Province. The main language spoken in the Province and also at MUT is isiZulu, followed by English and Afrikaans. KwaZulu-Natal has the second largest regional economy in the country, contributing around 16.5% towards the GDP of South Africa. Of those South Africans younger than 15 years, approximately 23% (that is 3, 5 million) reside in KwaZulu-Natal. All of these factors highlight the important social and economic role that the University has to play in the Province.
2. As part of the national goal of transforming higher education, the government in 2007 changed the designation of MUT from a technikon to university of technology. As a result, MUT as a university of technology has been required to reposition its purpose and role within the higher education landscape. It presently provides undergraduate professional and vocational education to students from KwaZulu-Natal, other provinces and from neighbouring SADC countries. It has a single campus accommodating around 10 000 students enrolled for a limited range of mainly undergraduate degree and diploma programmes mainly in the fields of science, engineering, and technology, and in business and management.
3. MUT offers general formative qualifications, comprising a mix of undergraduate diplomas and a limited range of bachelor degree programmes. However, constraints imposed by the Department of Higher Education and Training (DHET) following the recent turbulent history of the institution and the awaiting of the introduction of a new Higher Education Quality Framework curbed the expansion of bachelor degree programmes. The total student enrolment has fluctuated between 9 000 and 10 000 between 2004 and 2009 and virtually 100% of them are African students. The University currently has 10 040 students pursuing various degrees and diplomas (SER: 18).

Vision, mission and identity

4. Both the vision and mission statements are carefully explained in the Self-Evaluation Report (SER: 30-32) and offer explanations of what is intended. To be “pre-eminent” is defined as to “stand out among other universities of technology (UoT’s) on account of its superior performance in its core business”. “Applied research is understood as original investigation that applies scientific principles to practical problems” resulting in, “value-added products, processes and services to improve the human condition.” Community engagement is interpreted as “the institution’s social responsiveness that seeks to build mutually beneficial relationships within its communities” by leveraging “the intellectual expertise of the University and the knowledge base of the

communities involved.” Within this broad ambit “community outreach, technology transfer, service learning, internship and volunteerism” are included within the activities of the University (SER: 28-29).

5. MUT plays a critical supportive role to the citizens of Umlazi, but in order to improve its standing among the 23 public higher education institutions in the country, its needs to strategically locate itself in the wider eThekweni metropolitan area from where it can develop strategic partnerships with stakeholders in the province and region. It is important that the University not position itself as a parochial and insular institution of higher learning and research.
6. The University has made efforts to align the Strategic Plan 2020 with the vision and mission statements. It is not very clear how the implementation of the Strategic Plan’s objectives will achieve the transition from technikon to UoT status without an accompanying cultural change at the University. The Panel was not assured by interviewees or from the SER that major institutional stakeholders have engaged deeply with the implications of its university status and how this might be implemented and achieved via the Strategic Plan.
7. The Strategic Plan lists attaining ten priority areas equated with a successful transition from technikon to a university of technology. These priority areas map out what needs to happen to achieve an effective and efficient institution attracting good quality staff and students and a quality student experience via appropriate teaching and learning, research and community engagement. It is intended that the quality innovation and technology transfer emerging from applied research would position the institution as ‘pre-eminent’ among South African UoTs. Stakeholders, moreover, recognise that the strategic goals are unattainable without having an effective and competent management team to drive infrastructure and resource development.
8. The resolution embedded in the mission statement has yet to be firmly reflected in key institutional documents to guide and direct activities of the institution. This requires assiduous attention to ensure that the mission statement better informs and underpins the philosophical foundations of the University’s operations at an individual and/or departmental level. Awareness of the role of the mission in outlining the future direction of the University was conspicuously absent from the discussions with many staff.
9. Like all South African higher education institutions, MUT, has a responsibility to engage with South Africa’s socio-economic imperatives through the core functions of teaching and learning, research and community engagement. The Panel notes the intention of a careful pursuit of applied research as part of its contribution to attain pre-eminent status in the delivery of quality innovation and technology development. The Panel endorses this gradual and developmental approach to research. The ability

to attract and retain research-engaged staff and conduct research is a crucial aspect of defining a university. The University admits serious problems in this regard and views its emergence from a period of 'diminished governance' and 'deinstitutionalisation' as having had a devastating impact on both academic staff and infrastructure and consequently putting the institution in a compromised state. The Vice-Chancellor in the Foreword of the Strategic Plan, unambiguously stated the difficulties of an unreliably constructed strategic plan that ignored the fundamentals of its new mandate: "On the other hand, the institution had to reckon with the plain fact that, at least in the initial stages, it was not appropriately structured, staffed or resourced to respond effectively to its new mandate". Furthermore, the Panel struggled to understand how the chosen research focus areas are aligned with MUT's mission and its plan for technology development and transfer within its geographic setting.

10. To achieve fitness for purpose as a University of Technology, the upgrading of staff qualifications is a necessity. Like other South African institutions facing a similar transition to university status, staff are required and supported to improve their academic qualifications to at least a master's degree level. To capacitate academic staff, it is imperative that the teaching and learning centre mentioned in interviews be created as soon as possible to create an environment where staff can develop as reflective and scholarly teachers and to develop the requisite graduate skills to nurture postgraduate enrolments. This matter will be explored more fully in Section 4 of this report.
11. The SER described the period before the appointment of the Assessor in 2008 as a time of 'de-institutionalisation' characterised by the absence of appropriate and functioning governance and management structures (SER: 21). The devastating consequences of this 'diminished governance' compromised good governance, resource allocation, teaching and learning, research and community engagement. As a result, the University suffered from over-enrolments leading to substantial student overcrowding in lecture and laboratory facilities. The absence of effective institutional planning; a dysfunctional institutional culture characterised by fear and victimisation of staff; and the departure of senior and experienced staff for a range of reasons, including low staff morale also added to this demoralising situation.
12. In an effort to achieve a robust institutional identity, the University is confronted by the following challenges: the first is to address the legacy of 'de-institutionalisation' through the re-establishment of sound corporate and academic governance across the institution. Part of this task includes finalising the new Institutional Statute and also restoring the trust and participation of staff, students and other stakeholders in a commitment to the academic endeavour. To this end, a substantial process was started to significantly renew or develop institutional policies, systems, structures and processes, and the associated accountability of individuals or structures, in line with legislation and good higher education practice. One of the benefits reported to the

Panel by a number of interviewees has been a renewed focus on the academic project of the University. While the effects of the breakdown of governance and management must be addressed, it is important that the University leadership continues to be active in communicating where it wants to take the University and to ensure that the momentum of academic change is maintained in order to take advantage of the current goodwill of staff and stakeholders.

13. The second major challenge is to establish the institution as a university of technology with an institutional culture and identity that is sufficiently distinctive within the higher education sector, and that generates staff, student, community and stakeholder ownership and support. The University must conceptualise and give appropriate expression to the three core functions of teaching and learning, research and community engagement in such a manner that reflects its identity as a university of technology.

Recommendation 1

The HEQC recommends that Mangosuthu University of Technology initiate an institution-wide conversation about its identity as a university of technology and the implications that this has for its programme and qualification mix, and its expression in teaching and learning, research and community engagement.

Transformation, institutional culture and equity

14. MUT has begun the process of engaging with the national transformation imperatives and the opportunity for the University to redefine itself. The SER admits that it has unfortunately failed to explore these issues on an institution-wide basis (SER: 33). The general consensus nonetheless is that it should embrace, “the generation of an institutional sense of ownership; promotion of intellectual vibrancy and a spirit of excellence; customer orientation; integrity and valuing of people; democratic ethos; transparency; building local and international partnerships and networks, and the development of optimal infrastructure.”
15. The University’s mission statement proposes a particular interpretation of transformation where the institution serves as an intellectual conduit for the training of indigent and socially disadvantaged individuals to acquire the skills needed for them to play a meaningful economic role to uplift themselves, their communities, province, and country. In striving to achieve fitness of purpose as a university it is essential that such a view does not promote an isolationist and narrow perspective of transformation. The University community must engage with the wider transformation challenges of the Education White Paper 3: A Programme for the Transformation of Higher Education which is linked to gender, class, quality, and the wider intellectual shift from ‘training’ to ‘educating’ and its implications for the University.

Recommendation 2

The HEQC recommends that Mangosuthu University of Technology develop a shared understanding of transformation among staff and students, including strategies to integrate the elements of transformation into forming its institutional culture and new academic identity, where tolerance of opinions promotes an environment conducive to higher learning and social cohesion.

Equity, success and transformation

16. There is almost an equal proportional split between the genders in student enrolment with 52% female and 48% male students in 2008. In 2009 over 92% of the total number of 9680 students at MUT students were drawn from KZN (i.e. 8943 students), with the Eastern Cape providing the next largest group of 3% (330). No foreign students were registered in 2008 (MUT Handbook of Statistics: 2011, 4), although they constituted 1% (or 77 students) in 2009 (SER: 64). This configuration has serious implications in favouring a parochial mind-set that contributes to ongoing local provincial political tensions and politically-based conflicts on campus. Equally, it deprives these students of exposure to a wider cultural setting both in terms of class and race.

17. Post the period of 'diminished governance', MUT is committed to provide access to higher education for students from disadvantaged backgrounds; there are consequences which continue to impact negatively on the fitness for purpose of the institution. Not least of these has been the rapid growth in the intake of students to the current capped level of 10 000 and the impact this has had on educational and physical infrastructural resources. This is further affected by the steady decline in numbers of permanent academics between 2005 and 2008 from 146 to 119. This decline in permanent academic staff was provisionally offset by a rise in temporary academic staff between 2005 and 2007. The temporary academic staff numbers, however, also dropped thereafter in 2008. Of particular concern is the fact that at least 14 of the staff lost during this period were academically qualified at the master's or doctoral level (SER: 172). While, in the period 2005-2008, there was a slight improvement in the student to staff ratio, it remains at 46:1 which is substantially higher than the average for the university of technology sector of 29:1, and negatively impacts on the quality of the student learning experiences. A conscious pedagogical approach to deal with this steady decline in qualified and experienced academic staff is the least MUT could do.

18. The University's leadership is encouraged to systematically explore through institutional impact monitoring and evaluation, the philosophical, organisational and structural underpinnings of its academic culture and the implications of its programme offerings that are fundamental to being a university of technology that intends to make a socio-economic impact in its local and regional context. The Panel gained the impression from staff and stakeholders that there is a perception that MUT has been

isolated and parochial in relation to other universities and wider engagement in the metropolitan area, province and in the region. As noted above, MUT should forthrightly address these internal and external perceptions of its parochial status by seeking to locate the institution within the broader eThekweni metropolitan area, the Province, region and nationally. This could provide opportunities to develop new partnerships and opportunities with a range of local communities and external stakeholders.

Recommendation 3

The HEQC recommends that Mangosuthu University of Technology strategically locate itself in the eThekweni metropolitan area from where it can develop strategic partnerships with stakeholders in the province and region, and actively embrace a model of greater university cooperation at both national and international levels.

19. The development of a new academic identity as a university of technology requires further reflection on issues of student access and success and the necessary elements of a suitable student experience at MUT. As a result of the socio-economic profile of its students, MUT attempts to offer 'affordable' education. The University also notes that it draws its students from a weak schooling background and recognises the need for extra support to ensure student success. In 2010 the majority (66.7%) of first-time entering students had National Senior Certificate point aggregates of between 20 and 34 points, with a mean of 27 points, although the minimum admission requirement into management sciences was 16 points (SER: 63). This mean is not significantly different from the admission criteria of a number of other universities in the country. In 2008 the University's undergraduate success rate was 78%, which is on a par with the better results of UoTs in South Africa.
20. Performance is particularly low in the SET category which is attributed to the inadequate background in mathematical training received in the schooling sector. The reasons for the low graduation rates need exploration by the University with possible answers lying in areas of financial need, campus learning environment, problems associated with work-integrated learning (WIL) requirements, and the nature of teaching and learning provided. However, in the absence of rigorous and systematic quality assurance of its academic offerings, the University is not in a position to satisfy itself that any changes in graduation and success rates are not at the expense of quality.
21. The Panel recognises that there are external factors which impact on the success of the University. Over the years, the tensions in provincial and national politics that played out in the institution have had a negative impact on staff, students and stakeholders. The consequences of these pressures have been devastating to the institution and it is important that the loss of teaching time to protest action, which

such actions cause, is minimised. While there have been improvements under the tenure of the present Vice-Chancellor and Principal, the academic project at the University continues to be under threat by external political interference in student formations. Violent protests on campus have been an outcome of this in the past. Students have been intimidated and their safety compromised by being forced to align with competing political factions and thus adversely compromising the University as a place of knowledge generation, of contestation of ideas, of critical citizenship and of democracy building. The Panel is encouraged by senior management's decisive leadership in changing this culture and notes that a range of measures have been introduced to change this situation, for example, criteria for student leadership positions, active engagement with external political leadership and the marketing of the University as a place of higher learning. An unfortunate legacy of the past is the cumulative impact on current resourcing priorities and allocations which has led to the under-provisioning for the on-going development and maintenance of the core academic project and its effective support. The extent of this will be referred to later.

22. Under these circumstances, equity and transformation at MUT are clearly linked to the University's capacity to provide staff and students with an enabling environment where physical access leads not simply to good success rates, but access to knowledge, that is, competent student participation in the discourses and practices of their disciplines and learning for understanding rather than rote learning. The Panel noted the dedication of the majority of staff to ensure the success of students. However, without considerable adjustment and the adoption of appropriate teaching methods, the successful attainment of access to knowledge is at risk of floundering by the time MUT reaches a steady state in its university environment.
23. The Panel examined documentation and discussed the causes for the low academic performance rates of students in interviews with a range of staff. Although some of the problems, such as under-preparedness for higher education studies and reported insufficient National Student Financial Aid Scheme (NSFAS) funding, do not wholly depend on the institution, others like the lack of fit between student needs and the responses provided by existing academic programmes, the quality of teaching, and the kind of academic and pastoral support provided to students are within the University's capacity to address. The Panel did not find evidence that the University has put in place sufficiently adequate interventions to assist at-risk students, although an extended learning programme has been developed and implemented. The Panel acknowledges that the University has conducted internal reviews of its academic programmes that have involved external peers. However, the University has been unable to effectively derive the anticipated benefits from this process due to a number of constraints ranging from finances to the inability of some departments to implement the improvements.

Recommendation 4

The HEQC recommends that Mangosuthu University of Technology monitor the implementation of the improvements from the internal review process to ensure that it is in a position to satisfy the maintenance and enhancement of educational quality.

24. The staff gender profile indicates a bias in favour of males particularly at the professional levels. The University is encouraged to closely monitor the gender representation of women. The Panel was pleased to note that the majority of academic staff members are employed on permanent rather than temporary contracts. Nevertheless, in terms of a transformation agenda, the increase of female staff, particularly in senior positions, must become a priority.
25. The Panel concurs with the University that its approach to transformation includes interaction with and benchmarking against other institutions in South Africa, and makes use of international links to enhance the transformation agenda of MUT.

Institutional culture and the student experience

26. Disturbing aspects of student behaviour were foregrounded during the audit site visit, of which political intolerance, sexual abuse of female students, cheating and destruction of property were highlighted. While the University has made great strides in promoting a new ethos and stability on campus, the Panel encourages the University to continue to monitor and enhance behaviours that promote tolerance among students. University education should foster and develop knowledge acquisition and the creation of an environment conducive to learning and the development of personal integrity and ethics.

Recommendation 5

The HEQC recommends that Mangosuthu University of Technology continue to monitor and enhance behaviours that promote tolerance among students and ensure that academic programmes and other activities promote ethical citizenship which supports tolerance of ideas and difference.

27. In addition, the transformation of the student experience is of great importance. This is an area of significant deficiency both in the areas of residential accommodation and extra-curricular activity as well as general campus spaces. The Panel is concerned with the extent to which the general environment and infrastructure has been allowed to deteriorate. The Panel observed a general state of disrepair, untidiness and lack of cleanliness, and was concerned that this situation has led to a lack of pride and loss of dignity among the students. The Panel concurs with the concerns expressed by Council, management, staff and students about the quality of the overall campus environment that supports the academic focus of the University.

28. Areas for attention include ensuring that the physical campus promotes a learning environment that takes account of its social, recreational, sporting and residential aspects. There are serious concerns which relate to overcrowding on campus, the lack of computer laboratories, the inadequacy of the library facilities, and the quality and location of the residences. Management is aware that these issues significantly impact on the quality of student life. The Panel concurs that these, and other, problem areas be addressed as soon as possible.
29. An unfortunate consequence of the instability of recent years is the cumulative impact on current resourcing priorities and allocations which led to under-provisioning for the ongoing development and maintenance of core academic functions and their effective support. The extent of this will be referred to later. A major challenge appears to be the University's limited resource capacity to support its recovery and transformation.
30. The result of previous choices about student accommodation has had a negative impact on educational quality, and especially the quality of the student experience for those residing in the Durban city centre. Taken together, the limited resources available to the University and the high percentage of students in its residences may require the University to make some hard choices by way of residences in the medium to long term with respect to what it is able to provide to ensure the financial sustainability of the University. While acknowledging the challenges confronting the University regarding land acquisition in proximity to the campus; it must consider as one of many strategies, an engagement with private sector entities that are willing to create student accommodation in close proximity to the campus. The provision of an encompassing student experience involving residential and day students, and that extends from the lecture halls and laboratories to other learning and social spaces on campus, is a fundamental challenge for the institution. The Panel notes, from interviews, that the security arrangements seem to be working well and that criminal activity is virtually absent on campus.
31. Student support services have not kept pace with the rapid expansion of student numbers since 2003. The health and counselling services appear to be inadequately staffed and poorly located to fulfil their tasks effectively. Sporting facilities are also inadequate for the size of the student population. Provision in this regard should be seen as an integral part of the student wellness programme.

Recommendation 6

The HEQC recommends that Mangosuthu University of Technology provide a comprehensive student experience that includes an improved campus environment for staff and students, improved health and counselling services, and urgently consider relocating city-based residential students closer to campus.

32. In a number of interviews with students and staff, the Panel heard of the prevalence of sexual harassment and sexist behaviour at the University. Particularly worrying is the indication that cases of 'sex for marks' might be taking place at the University, with lecturers victimising female students who refuse to offer them sexual favours. This situation is totally unacceptable in whatever context. The University has taken action in reported cases against staff. The extent to which this situation is exacerbated by patriarchal behaviour was not clear to the Panel. The Panel is encouraged by the bold steps taken at the University to ensure that transgressions are dealt with and that support is provided to those subjected to reported sexual harassment. There must be close monitoring by senior management of reported incidences and actions taken to inform future institutional strategies and actions.
33. The Panel heard reports that the University is not a welcoming place for persons with disabilities. In particular, buildings and infrastructure do not adequately accommodate persons with disabilities. This was also compounded by the lack of sensitivity displayed by some staff and students who also lack training in this area. The Panel urges the University to benchmark its practices relating to supporting persons with disabilities. The Panel reminds the University that it has a responsibility for the education of students beyond the formal curriculum and of the importance of providing a safe and accessible educational environment.

Recommendation 7

The HEQC recommends that Mangosuthu University of Technology urgently investigate the extent and impact of sexual harassment and patriarchal attitudes on its premises, and continue to promote an institutional culture based on democratic values, gender equality and respect for human dignity, especially for those living with disabilities.

34. The University is encouraged to review the effectiveness of the approach to, and administration of NSFAS, including regular communication to students on decisions related to student allocations. The current allocation approach is reactive rather than proactive in meeting student needs, for example. The late notification of available funding for residential assistance to first year students, in particular, results in a small number of first year students on financial aid being housed in the residences.
35. Executive management and the Quality Management Directorate have a responsibility for the implementation of the Strategic Plan 2020. The Panel, however, noted that the Strategic Plan does not clearly allocate responsibility to any specific office or structure. Given the gaps in leadership capability across the institution, and academic leadership in particular, the University should consider expanding the formal and informal platforms of the Vice-Chancellor and executive management to ensure meaningful participation and ownership from University stakeholders for the successful implementation of the Strategic Plan. This process should provide feedback from the

periodic reviews and monitoring mechanisms to ensure that the University meets its objectives, and in particular provides direction for the academic activities to ensure the quality of education provision.

36. In terms of its academic staff profile, as noted earlier, the lack of clear equity goals and plans is of concern. The demographics of executive management indicate that this is an issue that requires attention. There is also recognition by most stakeholder groups that women are seriously under-represented at senior management level.

Recommendation 8

The HEQC recommends that Mangosuthu University of Technology ensure a meaningful participation and ownership from University stakeholders for the successful implementation of the Strategic Plan by developing an integrated operational plan that includes employment equity targets at all levels within the University, with transformation goals that have clear timeframes, resources and responsibilities that are appropriately allocated.

37. The Panel heard that there has been positive improvement and change at the University since the current executive management has taken charge. It will be important for the University leaders to ensure that residual mistrust and fear between staff members and those who were seen to “collaborate” with the previous management is addressed. It is important that an inclusive and respectful culture is fostered, including meaningful engagement with the staff union and student leadership by middle managers. The Panel is of the opinion that part of establishing a renewed institution and culture will be the development of an appropriate performance management system with clear key performance areas and indicators which are aligned to strategic priorities for all staff. The Panel was made aware by a number of students of their satisfaction and appreciation of committed academic staff.

Institutional Planning, Resource Allocation and Quality Management

38. The University is emerging from a period of ‘diminished governance’ and ‘de-institutionalisation’ which resulted in the Minister of Education appointing an Independent Assessor in 2008 to make recommendations on restoring governance, management administration and employee relations at the institution. In terms of this relationship, the University’s Act was suspended and current governance undertaken in terms of the standard institutional statute. But the institutional statute has yet to be legislated. The University is urged to ensure that its internal processes enable the finalisation of the relevant legislation.

Recommendation 9

The HEQC recommends that Mangosuthu University of Technology prioritise the finalisation of its institutional statute to provide a firm legislative basis for the governance and management of the University.

39. Following the Assessor's Report to Parliament, a new Council was appointed and subsequently received a comprehensive induction process. It is working effectively with executive management and the Institutional Forum in contributing towards effective governance of the University. The Council representatives interviewed by the Panel indicated that Council is aware of its statutory responsibilities and is working to overcome the deficiencies of the past. Challenges highlighted include the inadequately qualified numbers of academic staff, student debt which impacts on institutional financial stability and the low levels of awareness by students of their role in their own education and their place generally within the institution. The institutional risk register is being developed to assist Council, executive management and staff to identify and manage risks that threaten the good functioning of the University. The Panel noted Council's active support for the changes underway at the University and encourages Council and executive management to maximise this positive engagement.

Commendation 1

The HEQC commends Mangosuthu University of Technology for Council's active governance engagement in the affairs of the University and for their prioritisation and support for a speedy institutional turnaround.

40. The Panel reviewed the functioning of Senate and is of the opinion that it requires substantial strengthening. Prior to 2009 it was known as the Academic Board. Its academic leadership role in the University is recognised, but the examples provided by interviewees raised concerns that too great an emphasis is on operational matters to the detriment of academic oversight, academic debate, and discussing the academic and research directions for the University. The clearest evidence of this emerged in the approval of 48 new policies in 2009 and the admission by members of Senate that they were not thoroughly discussed in the context of its identity as a university of technology. Many strategic decisions, such as the nature and application of applied research were discussed in other structures and only reported to Senate without substantial discussion. What is not clear is the extent to which the lack of robust debate and self-critical reflection in Senate is a legacy of the period of 'diminished governance', or whether it goes further back to when the institution was designated as a technikon. The Panel acknowledges the changed institutional climate that now encourages debate. Nevertheless, the full engagement and deliberation by senior academics in this forum must be developed and promoted. Academics, likewise, must be reminded that academic freedom must be protected and respected in a context of accountability which includes a responsible work ethic and excellence in teaching quality.

Recommendation 10

The HEQC recommends that Mangosuthu University of Technology ensure that the Senate fulfils its mandate as the highest academic structure of the University.

41. The Panel was encouraged by the mature way the SRC approaches its mandate in terms of its willingness to work with management and the evident increase in communication between them. SRC expressed its concern about three issues: the institutional administrative processes that provide access to and delivery of NSFAS funding, and the quality of residences (particularly their maintenance) and the need for areas of quiet space on campus where students can work uninterrupted. Of some concern to the Panel is the SRC's lack of ownership of the role it can play in changing the protest culture of the student body to deal with grievances and complaints. The University is encouraged to explore ways to promote dignity and pride in its students as this will contribute to a quality educational environment, whether this is manifested in respect for student opinions or the provision of a physical environment that engenders human dignity and enhances student aspirations as future leaders.
42. MUT previously had trade union representation, but its activities were curtailed by the previous University management resulting in strained relations between union members and management. The situation changed in 2007 following the appointment of the Assessor when the National Education, Health and Allied Workers Union (NEHAWU) were provided access to the entire staff. The Panel notes that a situation has been created where it will be very difficult for the academic staff to advocate for their specific interests which are different from those of the professional or general staff. The approval of an academic promotions policy in the absence of a relevant policy for staff who are not academics is a source of tension because it is seen as privileging academics over non-academic staff. The University must be cautious when developing and approving staff-related policies to ensure that they are understood and are not seen to inappropriately disadvantage some staff.

Recommendation 11

The HEQC recommends that Mangosuthu University of Technology strengthen its communication with the labour Union and find ways to accommodate the valid concerns of staff within the formal Institutional labour structures to improve the quality of overall academic and university environment.

43. Staffing figures presented in the SER indicate that in 2010 the total staff complement was 492, of whom 178 are academics (SER: 56). The University is encouraged, as part of its human resources strategy, to explore the implications of its staffing arrangements to ensure quality educational provision and the adequacy of qualified

academics and academic support staff to meet the educational requirements of the University.

44. Financial planning requires serious attention. A budgeting model needs to be developed which is linked to strategic priorities and which is developed through an inclusive and transparent process. At present there appears to be a variety of budget models in operation, from zero based budgeting models to those based on allocation related to income-earning capacity. The University is encouraged to have a budget committee that is representative of different sections of the University and which will transparently consider the balance between academic and pastoral support provision for example, and the financial pressures of an inherited and poorly conceptualised student residence system.

Recommendation 12

The HEQC recommends that Mangosuthu University of Technology consider establishing a representative University Budget Committee that will engender ownership and responsibility from all relevant structures.

Quality management and planning

45. The severe breakdowns in institutional and financial planning under previous management have had negative consequences for the management of quality. Not least of these is, for example, the substantial increase in student numbers by 50% in the period 2003 – 2004. While enrolments have since been capped at 10,000 students, it appears that little was done to address quality considerations resulting from the increase in enrolments. One consequence has been the demoralisation and loss of key academic staff in the face of increased staff to student ratios, inadequate teaching resources and physical infrastructure to cope with increased student numbers.
46. The management of quality is yet to be fully embedded across institutional structures and in the institutional culture. It has only recently been placed on the agenda of the “re-constituted” Academic Planning Committee (SER: 85) and that it “is well placed to take custody of quality management at MUT” (SER: 85). Given the recentness of the change, the Panel is not able to assess the effectiveness of the Committee in this regard.
47. The Panel noted with concern the seeming abdication of academic leaders and staff of their academic responsibilities during the period of ‘de-institutionalisation’ when there were apparently no institutional policies in place to govern academic and other affairs. It is not clear how academic achievement standards, programme standards and good teaching were maintained and monitored in such a vacuum. Furthermore, it is not clear that the academic project of the University has fully recovered. An emerging key message during the audit visit is the need for consistency of implementation and monitoring of policies and processes, and the exercise of accountability by all staff and University structures.

Recommendation 13

The HEQC recommends that Mangosuthu University of Technology ensure the development of academic policies in areas where they do not exist and that there is consistent implementation and monitoring of existing academic policies and processes to maintain academic standards.

48. The Panel noted some instances where the responsibility of academics can be significantly enhanced. Very little reference was made by interviewees regarding the “scholarship of teaching and learning.” Rather, it appeared that for a number of staff basic standards of good academic practise required enhancing. Academics who fail to arrive for lectures, four and a half-day work week, inadequate preparation for classes and lack of attention to maintaining academic standards were reported to the Panel.
49. Other areas in which quality must be embedded include the comprehensive implementation of departmental and programme reviews and their improvement monitoring; the development of consistent implementation of surveys (including student, staff, employer and graduate surveys for quality assurance and improvement purposes); the functioning of industry advisory boards; and the quality management of support and service areas underpinning the academic project.

Recommendation 14

The HEQC recommends that Mangosuthu University of Technology ensure the proper functioning of the University through implementing measures to ensure that staff and institutional structures are held accountable for decisions and actions they take in respect to the academic project. In particular, this refers to academic staff attending to their lecturing duties.

50. The effectiveness of quality assurance in general depends greatly on an understanding of quality that goes beyond a technical compliance approach and rather engages with curriculum and teaching and learning practices. Efforts will need to be made to ensure that appropriate structures support the quality agenda of the University; that there is the development and dissemination of quality responsibilities in faculties and departments; and that there is an institution-wide knowledge of the quality assurance policies and procedures.

Recommendation 15

The HEQC recommends that Mangosuthu University of Technology develop shared understandings of ‘quality’ among staff and establish monitoring mechanisms to ensure that the quality system is consistently implemented across the University.

51. There are many policy documents that have been recently developed. While this is a positive development, it appears that support for them from the university community

is yet to be accomplished. The Panel was also informed that given the urgency to put policies and procedures in place consultants were used, with little input from the university community. A period of assimilation and buy-in by the community will be necessary before they become effective. This is particularly critical if the QMD is to change the compliance approach among staff. A change management strategy may need to be developed to assist staff to transition to a new institutional culture and to the attitude to education and administrative quality.

52. The University must consider creating opportunities to expose its academic leaders at middle management level to wider (national) debates around issues such as national educational policy, access and success for students, assessment practices, etc. At the level of the executive management, the Academic Planning Committee and the Quality Management Division, it is necessary to ensure that there is an integrated overarching strategic vision that reflects a nuanced approach to identify needs and weaknesses in the system and respond with practical solutions. While requiring staff to improve their qualifications is critical, this alone will not necessarily ensure either better teaching and learning or the generation of prolific researchers without other supporting strategies and mechanisms. Nor will the alignment of faculty or departmental funding with student results necessarily enhance quality results (SER: 68). Both of these examples may be necessary, but are not sufficient conditions, to improving overall academic quality.

Recommendation 16

The HEQC recommends that Mangosuthu University of Technology take steps to provide academic leaders with training and mentoring opportunities that will enhance their leadership skills relevant to the university-of-technology context.

53. The University acknowledged the absence of an effective teaching and learning centre as a significant shortcoming that is to be addressed. The University is encouraged to ensure that a teaching and learning centre not only provides student support through 'academic development', but also enhances the capacity of academic staff through development of teaching, curriculum development and assessment methods that address student learning needs. This centre or unit must be appropriately staffed as it is a critical element in improving teaching and learning at the University. In this respect it will be necessary for executive management to signal the importance of teaching and learning and its improvement, and the role of such a centre to assist academics.
54. The Panel noted with concern that the University's management information system has not been producing reliable data. Steps are being taken to remedy this situation. The University's comprehensive use of data for planning and performance measurement purposes is yet to be fully implemented. This includes ensuring that staff at all levels make optimal use of generated reports. The Panel encourages the University to significantly strengthen the planning and institutional research functions,

including retaining staff who will ensure the collection of accurate data and its analysis, and which includes meeting the requirements of HEMIS.

Benchmarking and surveys

55. The University has not made regular use of benchmarking against other higher education institutions for quality improvement purposes beyond external moderation of final year examinations. In the past the Certification Council for Technikon Education (SERTEC) provided common curricula and certification for the institution. This situation has changed and the University must now assume full responsibility to ensure academic quality, including the quality of its academics, programmes and graduates. Cooperation with other universities of technology through evaluation of curricula does not appear to be as widely practised as formerly has been the case.
56. There is still too great a reliance, from the previous institutional status as a technikon, on the external determination of quality assurance and the benchmarking implicit in this. Interviews with staff revealed a justifiable satisfaction by MUT in the regaining of professional accreditation in its key programmes over the past year. As part of the drive to 'pre-eminence' it will become necessary in the future for the institution to consider the shape of its own curricula (considering the parameters set by the various professional bodies) to define the distinctiveness and uniqueness implicit in MUT's qualifications. Achievement of this objective, as indicated above, will require a buy-in of dedicated academic staff supported by an efficient teaching and learning centre and administration equally intent on the drive towards the University's attainment of 'pre-eminence'.
57. Surveys of MUT graduates on issues such as the ease with which they found employment, what skills acquired in their training and are most useful to them, etc., will provide important data for the development and improvement of academic programmes. Information of this nature, along with the feedback acquired through the work-integrated learning logbooks and interviews with final year students could prove vital in directing thinking around the repositioning of both the theoretical and practical components of the programmes offered. The Panel heard a variety of opinions on the quality of MUT graduates, from outstanding to poorly prepared graduates ready for the work place. The University has the potential to graduate students who have the knowledge, soft skills, attitudes and competencies to enter the workforce and is encouraged to conduct graduate and employer surveys to ascertain areas for improvement in its academic programmes.
58. From interviews conducted by the Panel it is evident that the system of industry advisory boards was a casualty of the period of 'de-institutionalisation' in some programmes. It is critical for not only benchmarking purposes that these advisory boards are re-established in areas where they do not exist as a priority and the inputs of their members be taken into consideration in future curriculum planning and determination of new programmes. This, however, should not mean the abdication of responsibility for programme development and curriculum design to these advisory

bodies. Similarly, while not strictly a matter of benchmarking, the widening of the WIL programme to as many of MUT's qualifications should be considered and prioritised, where feasible.

Recommendation 17

The HEQC recommends that Mangosuthu University of Technology monitor the effective functioning of programme advisory boards in all faculties by drawing on a range of key employers to provide information on the required skills and training requirements needed by graduates.

Arrangements for the quality management of teaching and learning

59. The University recognises the critical role teaching and learning must play as the core driver of its academic endeavours as a “new era” institution “that prioritises the pedagogical needs of students” (SER: 28). It is vital that the fulfilment of these objectives rests on “the scholarship of teaching and learning,” rather than simply the provision of an appropriate teaching and learning environment. It is within this context that the emphasis of this report is on the understanding and articulation of this phrase and the related implementation activities. The scholarship of teaching and learning implies an ongoing critical engagement with the thriving and prolific scholarship within higher education to gain a greater understanding of what constitutes quality teaching and engaged learning to meet the pedagogical needs of students. It implies more than keeping up to date with disciplinary advances but also constitutes a critical engagement with the literature on how best to teach or facilitate those advances to ensure optimal learning and understanding.
60. Institutional culture comprises a variety of elements, including the ways in which it promotes or hinders quality education, expressed through institutional teaching and learning practices. These include the attitudes, behaviours and values manifested by the different members of the university community. The attainment of the institutional mission requires a shift on the part of many of the University's staff from their current attitudes. On the other hand, there are many dedicated, committed and capable academics contributing to their disciplines who are concerned about total student learning and wellbeing. The Panel urges the University to strengthen the support mechanisms for academic staff and the establishment of accountability mechanisms where these do not already exist. Here too the suggestion for an appropriately staffed teaching and learning centre is reinforced.
61. The Panel confirmed that the academic governance structures of the University are operational. The University is strongly encouraged to develop and meaningfully promote the recognised characteristics of the academy, namely academic debate, academic freedom and exchange of ideas, especially in Senate and its committees, faculty boards and departmental meetings. The Panel is concerned that, while operational matters must be attended to, the space must be created to critically engage with strategic matters related to the University's academic and future research

directions and the enhancement of academic quality in the teaching and learning function of the institution.

Recommendation 18

The HEQC recommends that Mangosuthu University of Technology engage in an institutional debate on the necessary scholarship of teaching and learning beyond the provision of a supportive teaching and learning environment, consider the effectiveness of its pedagogical approaches in educating students from disadvantaged backgrounds, and identify graduate attributes and ways for students to attain them.

62. The achievement of a vibrant intellectual university culture is contingent on a number of factors that include: appropriately qualified academic staff; a critical mass of staff who have academic gravitas, experience and credibility; some academics who are recognised leaders in their discipline areas, and the creation of an environment that allows for scholarly teaching and appropriate research. In order for the University to build such an institution, a considerable change is required in the culture of the institution. Efforts must continue to be made to encourage the recruitment and retention of suitably qualified staff who embrace the values being sought and are willing to advance them in their work.
63. The University should ensure that it actively develops academic leadership at the levels of the deans and heads of departments. The Panel is concerned that failure to do this will hinder the achievement of the academic agenda of the University. The risk of having a high percentage of staff being MUT graduates but without other higher education experience and exposure to other university cultures and practices has the potential to hinder the institutional transformation project. The University is encouraged to consider a programme of academic renewal that exposes long-standing MUT academics to practices at other universities. This will enhance the development of MUT's academic culture and allow recently appointed senior academics to meaningfully contribute to developing the specific intellectual and academic culture and practice at MUT. Similarly, the current absence of robust academic leadership across the various levels below the Vice-Principal Academic is a cause for concern and the institution cannot begin too soon with a careful consideration of succession planning within its academic management structures.
64. The University has developed a number of extended curriculum programmes (ECPs) in an effort to improve access and throughput rates of the many under-prepared students who come from disadvantaged backgrounds (SER: 105). ECPs are currently offered in Civil, Electrical and Mechanical Engineering in the Engineering Faculty, Animal Production, Agriculture and Information and Communication Technology in the Faculty of Natural Sciences, and Accounting in the Faculty of Management Sciences. The ECPs do not generally seem to be understood as an integral part of the

mainstream curriculum and are still conceptualised in some cases as one-year add-on remedial efforts taught by contract staff. The potential for such programmes to impact positively on the curriculum as a whole is therefore severely reduced. Given the general under-preparedness of enrolling students there seems to be a greater need for the integration of the ECPs into mainstream courses. An alternative option is to offer the undergraduate qualifications over either a three or four year cycle determined by criteria such as NSC points and the use of the National Benchmark Test results which are already in use by the University.

Recommendation 19

The HEQC recommends that Mangosuthu University of Technology consider integrating extended curriculum programmes into mainstream programmes and monitor their effectiveness.

65. Despite the evident dedication and commitment of a number of academics, under-resourcing and a high student to staff ratio of 46:1 in a context of student under-preparedness has an adverse impact on the quality of teaching and learning, and on the quality of graduates in a number of programmes. The University must ensure that there is an adequate number of full-time core academic staff across all discipline areas to support teaching and learning on an on-going basis. It is also important that part-time staff are adequately supported and monitored.
66. The University in its Academic Staff Promotion Policy and the Academic Staff Procedures highlights the premium given to excellence in teaching and in the promotion of its staff. However, while there are efforts underway to professionalise teaching at the University, more needs to be done. In a university confronting a significant range of challenges it is not surprising the Panel found limited evidence of on-going discussions and initiatives on new approaches to and innovations in teaching and learning. The University is encouraged to consider locating 'skills development' for academics within the proposed teaching and learning centre.
67. With regard to infrastructural concerns relating to the support of teaching and learning it is recognised there are factors that have impacted on teaching and learning, including the legacy of ineffective leadership, poor planning, inadequate maintenance, and the questionable allocation of resources and funding which has not enabled the institution to keep pace with its growth. The Panel concurs with senior leadership that the University should develop a comprehensive financial and budgetary model and plan geared to the short and long-term financial stability taking into account the quality priorities for academic provision, and implement the plan in a participative, transparent and rigorous manner.
68. The Panel appreciates that student academic and residential fees are a contested political issue and that the University is considering further measures to implement beyond the steps taken in the last 18 months such as information meetings with

parents in order to increase payment of outstanding student fees to ensure the viability and sustainability of the University. Given the many infrastructure funding requests that the DHET receives from universities, the University must explore other avenues of fund generation to meet its infrastructural needs. Recognising the significant infrastructural backlogs faced by the institution, some prioritisation of addressing these backlogs is necessary.

Recommendation 20

The HEQC recommends that Mangosuthu University of Technology review its prioritisation of infrastructure needs to match its teaching and learning focus, including the campus and residential environments that support educational quality.

69. While the Panel understands and acknowledges the severe constraints of historical disadvantage, it urges the University to assist its staff, students and stakeholders to have a frame of reference that is more entrepreneurial and innovative about its opportunities and possibilities, and to move beyond a 'deficit' frame of reference, as a first step to fulfilling its potential.

Library services

70. It appears that academic staff generally do not direct students to make effective use of the library for their studies, including its role in assisting students in preparing their assignments and projects. It seems that in general, students largely rely on textbooks and the use of the internet in the preparation of written work. In the absence of carefully used plagiarism detection software, there is a risk that students make use of a 'cut and paste' approach to written work, depriving them of the opportunity to ensure academic honesty and learn effective writing skills.

Recommendation 21

The HEQC recommends that Mangosuthu University of Technology integrate the library facilities more fully into the student learning experience, ensure that deans encourage their staff to regularly consult with librarians as they engage in curriculum design and also seek guidance on the effective use of the library resources in the facilitation of teaching and learning.

Information and communications technology

71. The Information Tertiary System (ITS) is used for the institutional management system. The Panel heard in interviews about the lack of adequate and functioning computer facilities for academic staff, students and administrative purposes. The technical services and information systems must be strengthened to support staff to do their work. Data management including ensuring the quality and integrity of the outputs must be a priority.

72. The student admissions process is based on the set requirements of the ITS system. For instance the payment of fees is required at a particular point to enable progress to subsequent administrative steps. MUT requires that fees are paid at a bank rather than to a teller on campus. Not all students read the payment notices and this delays their registration and causes bottleneck jams in the system. This is one example that gives rise to reports of inordinate delays in the registration process. Other perceived problems include the University not co-ordinating the closing dates for fee payment with end-of-month salary dates.
73. Unfortunately, the demands of the admissions process seem not to fit well with the ITS programme. The student selection process is problematic. The Panel heard of conflicting selection processes relating to applications received via the Central Applications Office and the tendency of individual MUT departments preferring to wait for unsuccessful applicants from other regionally placed institutions to apply before making final acceptance decisions. The Panel heard from academics and administrators that unsuccessful applicants to other local higher education institutions are preferred rather than applicants whose first choice was MUT. The institution is urged to resolve issues related to student selection and publish a definitive student selection policy and procedure.
74. The consequences of the student selection and admission procedures have significant implications for teaching and learning. Examples include the slow and laborious registration process at the commencement of each academic year and the consequent delays in the publishing of the academic timetable. The fact that timetables are only generated after registration is directly related to an inefficient use of the ITS system in both processes.

Recommendation 22

The HEQC recommends that Mangosuthu University of Technology review its admission policies and processes, ensure that maximum use is made of admissions software, and improve the efficiency of its admissions processes.

75. The Panel noted one other area for improvement that can be made with respect to the use of ITS. Instead of the functionality of ITS being fully employed, manual systems are used to establish whether all the programme requirements have been met by students prior to graduation.
76. The Panel heard from a number of interviewees that the number of support staff allocated to ICT services is inadequate. Furthermore, the Panel also heard that parts of HEMIS data provided to DHET has been inaccurate and has under-represented the academic performance of the institution which has negatively impacted on the DHET teaching and learning subsidy for MUT.

Recommendation 23

The HEQC recommends that Mangosuthu University of Technology review the staffing of the ICT Division and ensure that accurate HEMIS data is generated.

Language Centre

77. The Language Centre provides an important service to improve the language skills of students. As the language laboratory is a central element of the Centre, a considerable investment will be required to maximise its use. At present it appears that the main aim of the Centre is to assist students to improve their English language speaking skills prior to them taking up work-integrated learning activities in the corporate environment. The Centre also provides services to students referred to it by academics and those who voluntarily visit the centre after recognising the need to improve their English language skills. Students expressed concern that the underuse of English on campus and in the lecture rooms threatens their confidence in their language abilities and that it becomes a barrier to learning.
78. During campus visits and in interviews the Panel heard that the Centre is under-resourced and under-staffed. Its infrastructure would also not be able meet student needs if properly utilised. The Panel found that less than half of the computers in the laboratory were operational. Some of the equipment is old and in need of replacement. The software available is dated and the present server lacks the capacity to effectively run the existing language software, let alone more recent software.
79. Given the importance of the Language Centre in developing student language skills, the Panel is of the opinion that the University re-visit the function and role of academic literacy, including the Language Centre, within the overall University teaching and learning strategy and its place in supporting the academic programmes in particular. A comprehensive approach to programmes is needed with respect to student communication skills. For example, the importance to differentiate between a lack of basic language skills versus communication skills in the workplace, and the need for basic academic reading and writing skills versus advanced academic literacies, may require different but integrated strategies and interventions. These are the challenges faced by underprepared students entering higher education and advanced skills are needed by all students in preparation for the world of work, e.g., language skills, communication skills and writing skills.

Recommendation 24

The HEQC recommends that Mangosuthu University of Technology upgrade the equipment and software of the Language Centre and ensure that academic literacy, of which the Language Centre is one part, is well conceptualised and closely aligned to support teaching and learning, and academic programmes.

80. The Panel noted the positive role that the Language Centre plays through its participation in a community outreach project to several schools in Umlazi Township. While discussing the role and benefit of the Language Centre with students, the Panel was informed that there is frequent use of isiZulu in a number of courses by some lecturers. This practice, if found to be pedagogically sound, might present an opportunity to the University to review the existing language policy and open a possibility for the University to recognise the role of isiZulu in supporting the main language of instruction. The reported use of isiZulu as a language of teaching is currently inconsistent with the University's language policy. The University is encouraged to ensure that University policies are understood and implemented, and that, where necessary, staff are supported to meet their teaching commitments.

Work-integrated learning

81. It was reported that there are some departments where there is a need for greater consistency in operations, assessment and monitoring. The Panel heard that industry is largely complimentary about the graduates from the programmes where WIL is included. The intent that WIL should be introduced into all programmes was noted by the Panel, but it is concerned that issues such as staff capacity and resource implications may need greater consideration by the University. Information gained from programme advisory boards regarding the quality of graduates, their meeting the needs of industry and the students' readiness for the world of work is used to inform the approach to and practice of work-integrated learning. Responsibility for the quality of WIL rests with the HoDs.

82. The University benchmarks its implementation of WIL with other universities of technology, and also benchmarks its practices through its participation in the membership of the Southern African Society for Cooperative Education (SASCE). The Panel heard from industry representatives that WIL students are well prepared and that they will continue to take students, although mention was made of the need to ensure that students gain the necessary skills to be able to present themselves well in interviews and that their English communication skills are often not at a level required by industry.

83. The work conducted by the CED in supporting WIL is effective and appreciated by staff and students. There is good practice in a number of departments, but the University has yet to achieve consistency of implementation and monitoring across all programmes, including ensuring support for coordinators and WIL students.

Commendation 2

The HEQC commends Mangosuthu University of Technology on the Cooperative Education Directorate's role in implementing and monitoring of work-integrated learning.

Management of certification

84. Student academic records are adequately maintained. There are clear requirements for reporting results to the Examinations Office and for ensuring their accuracy by way of referring captured results back to departments for checking. Alterations to results are dealt with separately and are recorded in minutes (Examinations Manual Section 13). This ensures that there is transparency of processes and documented changes to safeguard the integrity of data.
85. Student records are secure but apart from the electronic data records there is no disaster management policy to protect or recover the hard copy student files. The Panel noted that offices in administration contained numerous boxes of paper on the floor which constitutes a fire risk. A simple clean-up would reduce the fire risk considerably. The Panel urges the University to take steps to minimise the risk of fire in the administration section.

Management of the quality of short courses

86. Measures need to be put in place to ensure that only quality short courses are offered and monitored. Certification issues need to be addressed covering, inter alia, the difference between confirming just attendance of the courses or the attainment of specified levels of achievement. If certificates are issued they should be formally recorded. If levels of achievement are certified then measures are required for quality assuring the assessment practices associated with the courses.

Recommendation 25

The HEQC recommends that Mangosuthu University of Technology develop a short course policy and procedures to manage their quality.

Programme development and review

87. At the institutional level, there appears to be a need to develop the necessary capacity and skills in programme development and curriculum design, including expertise in pedagogical issues. This includes taking into consideration the financial viability of new programmes. Thought must also be given to the ways in which infrastructure and resources such as lecture rooms and laboratories, library facilities, educational technology in teaching spaces, an effective ICT platform and computer access for students, have on the learning process.
88. With regard to reviews carried out by professional bodies, the University is rightly pleased that a range of programmes have received professional accreditation status. Reliance on professional accreditation should not become an abdication of the University's responsibility for its own setting of academic standards, including their monitoring and improvement. It must be recognised that external compliance should complement the University having implemented and monitored internal quality policies and processes, and internal quality management processes should meet agreed and benchmarked internal standards.

89. Beyond exit level external moderation of summative assessment and the feedback from advisory boards and professional bodies, internal academic quality assurance is only tested via periodic departmental reviews. The state of flux in senior management over the past several years has affected the internal reviews process negatively. It is important that the University ensure that there are regular internal academic reviews of programmes and departments to ensure and enhance educational quality and academic standards.

Management of assessment

90. Overall, the Panel noted that there are a number of concerns related to the assessment policy and practice, principally the consistent and rigorous implementation of the assessment policy across faculties and departments. The Panel was informed that there are some instances of inconsistent implementation of assessment practices that require attention.
91. Moderators are appointed for all modules. External moderators are assigned for final year diploma and BTech modules. The Panel found the use of external examiners for all exit level courses to be well implemented. The University is encouraged to provide external examiners with information, such as course guides, on the particular course or module for which they are responsible so that they are in a position to make meaningful contributions to curriculum improvement and renewal, and to be able to comment on the alignment between the assessment and the course outcomes.

Recommendation 26

The HEQC recommends that Mangosuthu University of Technology provide feedback on formative assessment to students and ensure that the Assessment Policy is communicated to staff and students, and rigorously implemented and monitored across the faculties. In particular, it should ensure that the old practice of inflating pass rates is discouraged as it could seriously compromise educational quality and academic standards of the University.

92. It is acknowledged by staff that improvements have been made in recent years with regard to examination logistics. Measures have been taken to stamp out cheating in examination venues through the increased use of invigilation officers. This issue, however, speaks to a wider social problem in that a mind-set appears to exist among students that cheating is acceptable if you are not caught. The University appears to be in serious need of a more comprehensive induction process which will point out to students and assist their understanding of what behaviours are and are not acceptable within an academic setting. In this respect, as the University adopts electronic student task and assignment submissions it could also use plagiarism detection software to assist students identifying what is unacceptable academic behaviour and promote

academic honesty. However, staff training in the use of and limitations of such software should be provided.

93. A Recognition of Prior Learning (RPL) policy was approved in June 2009. As yet, little appears to have been achieved in the implementation of the policy to ensure wider access for students. The Panel encourages the University to implement its RPL process to enable student access to the institution.

Staffing and staff development

94. The Panel noted that MUT experiences a serious challenge to attract and retain competent staff. This was exacerbated during the period of 'diminished governance' when all staffing decisions and interviews for positions were directed through the office of the vice-chancellor. Resignations or termination of employment contracts of staff was a regular occurrence resulting in the loss of many qualified and skilled academics. A consequence of this period was the creation of a steady backlog of unfilled positions. Steps were taken after 2008 to address the problem. Nevertheless, the shortage of academic staff resulted in increased teaching loads, which has had a negative impact on the quality of teaching and learning. Although a number of programmes are run by committed and well-qualified academics, a few academic programmes across all faculties have experienced staffing problems with, for example, junior academic staff teaching at the level of their qualifications. The Panel also found evidence of under-qualified staff being appointed in the absence of suitably qualified candidates. This situation has prompted the trend among junior staff to teach in isiZulu to the detriment of student inclusiveness of those not competent in isiZulu and scientific language competence development. The University must urgently act to ensure compliance with the HEQC programme accreditation criteria that only qualified staff teach higher education programmes.

Recommendation 27

The HEQC recommends that Mangosuthu University of Technology ensure that academic programmes are taught by appropriately qualified staff.

95. MUT has not opted for the casualisation of its academic staff. The number of contract staff has actually declined in recent years. With regard to those staff on contracts, however, the Panel noted the short contracts offered to such staff can result in low commitment to the University. The Panel noted that contract and temporary staff do not have clear accountability for the programmes they teach, and there is a lack of appropriate systems for their accountability at departmental level. The Panel urges the University to develop and implement a plan to address issues of staff recruitment and retention. The development of a vibrant intellectual climate driven by commitment to a defined academic project will go some way towards addressing issues of staff morale and commitment.

Recommendation 28

The HEQC recommends that Mangosuthu University of Technology develop and implement a staff recruitment and retention plan, and address issues of staff morale and commitment.

96. The use of newly qualified graduates in any capacity, who lack understanding of classroom activities for the ECP and first year courses, needs to be reviewed. First year students require sound academic guidance and careful pedagogy to ensure they are successful in mainstream modules and acquire the academic skills required for success. For this to be met, experienced lecturers with an understanding of what teaching strategies and methodologies to use are required. Staff members need to be supported in their preparation for the task of teaching academically underprepared students. Measures are needed to ensure that at-risk students are identified, supported and tracked. Part-time or contract staff members don't have any induction or staff development programmes. Similarly, HoDs need formal training when newly appointed. Moreover, the value of a structure such as a dedicated and well-resourced centre for teaching and learning cannot be underestimated to enable the University to address the identified shortcomings. However, this should not preclude the need for an effective induction programme.
97. The appointment of qualified and capable persons to critical positions in the institution is urgent. A performance management policy has been developed but implementation thereof, if it embraces the appropriate developmental guidelines, will ensure that recently appointed and established staff develop themselves. Induction programmes are critical for newly recruited staff to engage with the ethos and expectations of the University. Funding is available for skills development as well as study programmes for the improvement of staff qualifications. Professional development for academic staff, though voluntary at present, is well attended; albeit it is unclear which divisions are responsible for this professional development programme. At present it appears that both the Human Resources and Development and the QMD offer courses in this regard, but as indicated above such courses should be located in a teaching and learning centre where a specified goal and philosophy towards academic staff development can be established and implemented in a coordinated way.

Recommendation 29

The HEQC recommends that Mangosuthu University of Technology develop and implement strategies and procedures to deal with high teaching loads which includes the appointment of qualified, capable and accountable academic staff.

Quality management of research

98. Given its previous existence as a technikon, research activity is essentially a new venture for MUT and the University is applauded on the alacrity with which it has embraced the desire to initiate research activity. It is recognised that developing a

modest research profile at MUT involves a change of attitude by University staff if it is to yield the anticipated results of a new institutional identity and culture and produce a growing cohort of active researchers to lead a thriving post-graduate programme. A careful balancing act is required between meeting the infrastructural backlog associated with the rapid expansion of the University and the significant future research infrastructure needs likely to emerge from the demands of researchers. Given the multiple challenges confronting the University, not the least the teaching and learning priorities, the University is encouraged to carefully plan the expansion of its research agenda in a staged and integrated way.

99. The alignment of the proposed research agenda to the mission statement and the strategic plan of the University is critical. The University stands as a gateway for generations of young, and mainly socially disadvantaged South Africans to succeed and take their place in society and in the economy. Similarly the institution positively embraces its role in improving the impoverished communities from where it draws its students. Ultimately, MUT needs to embrace both these roles within the context of its mission and develop a manageable research agenda given the financial and human resource constraints it is experiencing.
100. It appears to the Panel that the University must strengthen and consolidate the academic leadership necessary to conceptualise and implement a sustainable research agenda. The University requires dedicated research development leadership that will provide specific targets within realistic timeframes, and which takes into account staff development and training needs to empower individuals as researchers. A change management process for staff may be necessary not only to ensure that staff understand how the research agenda is aligned to short and long-term institutional objectives within the constraints of the institutional budget and allocation of resources, but also to ensure their role in supporting it and contributing to its sustainability.
101. Given the absence of a robust research culture, linked to the severe resource restraints limiting the possibilities of rapidly developing a large research profile, the Panel concurs with the University that it take a gradual and developmental approach to research development, focussing on applied research in relevant niche areas (SER: 154). The inclusion of space science as a niche area, linked to a recently appointed researcher, may present a challenge for the University as it has to ensure an equitable allocation of scarce resources to the identified niche areas and alignment with the institutional mission and strategic objectives. The Panel heard that MUT is located in an area that presents vast opportunities for appropriate and applied research that could lead to innovation and technology transfer for improved quality of life and sustainable livelihoods in the local community of Umlazi. For example, MUT could consider applied research aimed at 'grand challenges' such as the *300House* project to provide cost-efficient housing for disadvantaged members of the community, or the Gates Foundation's recently announced sanitation challenge designed to solve the central sanitation problem in new and/or informal housing situations. The Panel encourages the University to ensure that its research programme takes into account

the establishing and strengthening of links with business, industry and local communities, where possible.

Recommendation 30

The HEQC recommends that Mangosuthu University of Technology ensure that its research niche areas are aligned to its mission and strategic priorities and is supported by a critical mass of researchers and allocation of resources.

Research professors

102. The appointment of full-time research professors in relevant niche areas, especially in areas where the institution already enjoys a competitive advantage due to existing strengths, is a prudent method of building research capacity and increasing research output at an institution. The role of research professors should include mentoring of young researchers as well as supervision of postgraduate students. Some concerns were raised with the Panel about whether the University leaders recognised this role of research professors as an important way to establish and enhance the institutional research profile and capacity. The Panel concurs with the University that research professors should assist with the development of strategies to encourage collaborative and problem solving research aimed at widening research participation and productivity. The University is encouraged to explore the feasibility of making use of visiting professors to strengthen the impact of the professoriate in the various disciplines and develop future academic leaders and researchers.

Recommendation 31

The HEQC recommends that Mangosuthu University of Technology review the role of the professoriate in developing academic and research leaders in areas where the University has strengths at the undergraduate level and develop strategies aimed at widening research participation and productivity.

Research output

103. The University recognises that it has a low research output. In the period between 1999 and 2009 a total of 48 articles were published, of which 13 were in the period 2007 – 2009 (CREST: 2011, 8). This improvement in research outputs in recent years is acknowledged as an increase off a very low base. Improving the research profile of the University is premised on the development of its researchers and the growth of postgraduate student numbers. In terms of the latter, it is critical that the University in the medium term focus on strengthening its undergraduate programmes, particularly its bachelor degrees. It can progressively consider expanding its postgraduate programmes and the approval of postgraduate programmes will accordingly enhance the University's graduate profile. However, this is only a first step towards developing a postgraduate profile which presents some challenges for departments in the short to medium term to provide robust supervision, and establish a research and publication track record to attract postgraduate students. There will be a period where the emphasis must focus on growing and strengthening its undergraduate degrees and

slowly developing its postgraduate profile in well-established and strong disciplinary areas.

104. The University is aware that the prerequisite to having a quality and sustainable postgraduate programme is linked to the recruitment and retention of highly qualified staff who are active in research and postgraduate supervision. MUT is aware that it must improve the academic qualifications of current academic staff. The University is encouraged to put in place definitive measures to minimise the regular loss of up to twenty per cent of its recently qualified and potential research staff to other institutions and/or to industry.
105. Considerations of equity profiles in developing and advancing academic and research staff requires some attention, particularly in encouraging the development of female researchers.

Quality management of community engagement

106. Prior to 2008 no specific policy regarding Community Engagement existed at the University. A specific policy was introduced in 2009 which defines community engagement in terms of an interaction with 'communities' or interest groups "who are primarily responsible for the identification of their own service needs and development challenges" (SER: 182). The Community Engagement Policy provides the regulatory guidelines for the conducting of community engagement, where it is understood to represent projects identified as needs brought forward by the 'communities' to the University.
107. In this approach it is the community which initiates the process. It is not clear that the University has adequately considered who its community is and how its community engagement activities are aligned to the mission and strategic priorities of the University, and in particular to the teaching and learning and research interests of the University. It is also not clear how suggestions and requests from the community might inform the teaching, learning and research agendas of the University.
108. Senior Management recognises that the overall conceptualisation and implementation of community engagement requires discussion and review. It is important that the University debate the notion of 'community' and position itself in relation to the communities with which it wishes to engage. It may be useful in that context to clearly identify its different *stakeholder* communities (schools in the catchment area, industry, businesses, local and provincial government) and provide guidelines for engagement with each of these communities. The University recognises that its location and the specific needs of the peri-urban community of Umlazi must inform its community engagement framework in ways that involves teaching, learning and research for the enhancement of the quality of life of the local community. Far from being restrictive, such a conceptualisation of community engagement can sharpen the focus and improve the impact and relevance of its community engagement activities. It is also important that scholarship is encouraged and developed and which provides

greater scope for service learning. The current approach to community engagement serves to create a public face for the University but it either overlooks or underplays the potential for the development of responsible and caring citizenship among its students.

Management of community engagement

109. It is not clear that the Institute for Rural Development and Community Engagement (IRDCE) is the best suited vehicle for the coordination of the University's community engagement activities. The University is encouraged to consider the establishment of a Directorate of Cooperative Education which will take responsibility also for the co-ordination of WIL and service learning, since at present the committee for cooperative education appears a somewhat isolated entity. Such a central co-ordinating body can assist in enabling meaningful community engagement in the academic programmes, by linking research interests and WIL opportunities with community needs. It is important that the University closely manages the quality of community engagement in a consistent way across the institution.
110. In summary, community engagement at present appears fragmented, inadequately conceptualised, and poorly integrated. As the University develops a greater clarity on its identity as a university of technology that is a relevant and engaged higher education institution which interacts with its community, it will be important to ensure that community engagement is well conceptualised and integrated into the strategic priorities and the core functions of teaching, learning and research.

Recommendation 32

The HEQC recommends that Mangosuthu University of Technology develop a comprehensive framework for community engagement in line with its identity as a university of technology, is aligned with teaching, learning and research, and is appropriately quality managed.

Conclusion

111. After a protracted period of institutional crisis of governance and management, and four years after being designated a university of technology, the institution continues to be in a transitional state in relation to re-building itself and engaging with its new institutional identity. Resistance and residual fear co-exist with a cautious sense of hope and possibility about the future of MUT. The Panel notes that there is now decisive institutional leadership. Despite having its documented mission and vision, MUT has yet to comprehensively galvanise staff ownership and commitment that translates into action to make the University a vibrant centre of knowledge and its practice that contributes to the socio-economic development of the eThekweni area, Province and region.

112. Taking into account the high student enrolments and demand for access, the location of Mangosuthu University of Technology in eThekweni is well placed to offer a unique and vital role in the South African higher education system. There is opportunity to transform this institution into a recognisable university beyond the influence of cultural and political interests. There are a number of threats which have the potential to collectively make the University unsustainable if left unaddressed and which would shatter the hopes of current and future students and staff. The University has the potential to become an institution that is transformed and is transforming for students, staff and stakeholders and take its place in advancing knowledge and higher education in South Africa and on the continent of Africa.