

ANNUAU report

2015 ANNUAL report

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CUTata Glance

Central University of Technology, Free State (CUT) is the foremost higher education institution in the heartland of South Africa. Located in Bloemfontein; the judicial capital of South Africa, and Welkom, a major gold mining sector in the country. The two campuses brings quality education and training in science, technology, engineering, maths (STEM); as well as management sciences, humanities and education to the central region.

CUT (then still known as the Technikon Free State), opened its doors in 1981 with 285 students enrolled in mainly secretarial, art and design programmes. The institution boasts more than 15 500 students who have decided to make CUT their academic partner in earning a qualification and gaining appropriate work integrated learning to equip and prepare them for professional practice. With the restructuring of the higher education landscape a few years ago, CUT embraced its new status as a university of technology and thus positioned itself to succeed as such.

CUT delivers high quality higher education and training in applied sciences in the following four faculties:

- Engineering and Information Technology,
- Health and Environmental Sciences,
- Humanities, and
- Management Sciences.

Demand driven user-oriented programmes

As a new-generation institution, contributing to the development of the region and beyond, a career-focused, interdisciplinary curricula is needed. New programmes include:

Community Development Work | Design and Studio Art | Renewable

Energy Technologies | Logistics and Transportation Management | Health Management | Hydrology and water Management | and Sustainable Energy Advising.

CUT offer programmes in the following fields

Civil Engineering and Built Environment | Electrical and Computer Systems Engineering | Mechanical Engineering and Applied Mathematics | Information Technology | Agriculture, Environmental Health | Biomedical Technology, Clinical Technology, Radiography, Dental Assisting | Somatology | Emergency Medical Care | Communications Sciences | Marketing, Business Administration, Human Resources Management, Project Management, Office Management and Technology | Accounting, Financial Information Systems | Cost and Management Accounting, Internal Auditing | Government Management | Tourism, Hospitality | Teacher Education.

Research and Innovation

As a university of technology, all research programmes are directed at solving problems in business, industry, government, and communities (this is known as the quad-helix approach), and are aimed at contributing to the socio-economic development of the region which is included in the Community Engagement strategy that is rolled-out via the curriculum.

Research Clusters

The cluster is based on a collection of related research programmes, based on the critical mass in a particular field of research, research outputs, completed qualifications and funding awarded.

Although these clusters build strength in areas of focus, the principle of multi-, inter- and trans-disciplinary research, amongst listed programmes, is strongly supported.

CLUSTER	PROGRAMME		
Industrial Design, Communication and Development	 New Product Development and Design Evolvable Manufacturing, Automation and Vision- Systems Sustainable Engineering Water Resource Management Information and Communication Technology 		
Quality of Health and Living	 Applied Food Safety and Biotechnology Sustainable Farming Systems Applied Health Technology Environmental Assessment and Management Biotechnology 		
People and Skills Development	 Socio-Economic Development Studies Leisure Management Education (sub-themes: Health Science Education, General Education, Service Learning, Academic & Professional Pedagogy, and Scholarship of Teaching and Learning) Research Education 		

CUT also commands respect with its technology transfer research. Units/Centres such as the:

- Centre for Rapid Prototyping and Manufacturing (CRPM);
- Product Development Technology Station (PDTS);
- Unit for Applied Food Safety and Biotechnology (UAFSB);
- Seda Agricultural Mining and Tooling Incubator (SAMTI); and the newly established
- Unit for Lean Construction and Sustainability (ULCS);

Internationalisation

The university's vision is that, by 2020, 10% of its students should be international students from Africa and beyond. CUT has strategically positioned the International Office to enhance scholarships, research service and operations in the international education landscape. The institution are exploring opportunities for international and strategic partnerships.



In aspiring to fulfil its vision, CUT:

- Delivers high-quality appropriate Science, Engineering and Technology (SET) academic programmes supported by applied research;
- Engages with the community for mutually beneficial development;
- Promotes access with success in attracting potentially successful students and supports them to become employable graduates;
- Attracts and retains expert staff and supports their development and wellbeing; and
- Forges strategic partnerships.
- Customer service



- Core Values
 - Integrity Diversity
 - Innovation
 - Excellence

In 2010, the Council of CUT approved the following Vision 2020:

By 2020, Central University of Technology, Free State shall be an engaged university that focuses on producing quality social and technological innovations for socio-economic development, primarily in the Central Region of South Africa.

CUT Leadership charter

Excellent, quality and inspirational leadership is the cornerstone of any successful organisation. This valuebased leadership charter sets out areas in which managers should lead by example and demonstrate appropriate behaviour to the rest of CUT community. At all times, it is expected of all managers to live by institutional and progressive societal values and exhibit the expected behaviours when discharging their duties.

I shall:

- provide vision and direction;
- manage the unit or division I am responsible for;
- develop my unit or division;
- manage performance of my subordinates;
- develop people and subordinates;
- develop students;
- engage with internal and external communities;
- communicate regularly and effectively.

This leadership charter should be read and practiced in conjunction with CUT's motto, vision and mission and its core values as reflected belo

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Message from the Chairperson of the Council

It gives me great pleasure to submit this annual report which records the achievements of the university against our mission, to provide quality teaching and learning, research and community engagement outcomes.

I am also pleased to report that this year was yet another successful chapter for the university. Council demonstrated the commitment to its governance oversight role, as informed by the principles of transparency, accountability, responsibility, fairness and social responsibility in the King III Report on Corporate Governance.

During the year under review, compliance with these principles was monitored closely by Management and Council, and any perceived or proven deviations were addressed effectively and expediently in terms of the relevant CUT rules, policies and procedures. As a result, the university received another clean audit of its financial statements.

We succeeded in attaining most of our planned activities despite the fees-must-fall protests across universities. While our Bloemfontein and Welkom Campuses remained calm during those protests, we will continue to monitor these developments and the challenges likely to face higher education institutions in the years to come while supporting academically excellent and financially needy students within the means the university and the country have.

In presenting this report to our partners in government, business and industry, parents and general public, I wish to thank all Members of Council and Management for their courageous and visionary leadership, as well as their total support during the course of the year.

Dr Sylvan Maleho Seane

Chairperson of Council



Each year, Central University of Technology (CUT), like any other organisation, faces a new set of exciting challenges. The year 2015 was a year of renewal at both the governance and strategic management levels.

From the governance perspective, the CUT Council witnessed membership changes as a result of the end of the terms of office of some members, the appointment of new ministerial appointees and other Council appointed members. Furthermore, Dr Boet Troskie, a founding member of CUT, resigned as our Chancellor Judge Mahube Betty Molemela was elected as the new Chancellor.

From the strategic management perspective, according to our Strategic Plan, 2015 represented a midpoint in the timeline of implementation of our Vision 2020. This compelled us to revise our Strategic Plan: 2016 – 2020, so as to respond to the new challenges our University and our region face, and, consequently, to infuse a number of new innovations that are required to meet these challenges.

During the first phase of the implementation of Vision 2020 (2010 – 2013), the university focused on improving effectiveness and efficiency in its operations, thus ensuring fitness for purpose and building a strong and solid foundation. In doing so, we initiated a number of projects, aimed at re-imagining, unmaking, making and remaking our University, so that it could become a first-rate university of the 21st century.

As we commenced with the second phase (2014 - 2017) of our advancement as a university, our focus shifted to matters related to building a transformed, deliberative and value-driven university

that not only focuses on inputs and processes, but also on more of the ultimate outcomes of our work, which should reverberate in the broader society. CUT is well poised to seize current and future opportunities, and to increase our impact regionally, in broader South Africa and in the world.

Our Vision 2020 is founded on the principles of innovation, impact and outcomes, socio-economic development, and equity with excellence. In order to realise this vision, it is important that these principles occupy the centre of CUT's commitment to help society address the most significant socio-economic challenges facing our future. On the basis of these principles, CUT will establish a robust culture and programmes in innovation and entrepreneurship education and training.

The 2015 academic year heralded another successful year in the history of this fledgling university, as we continued to innovate and grow new areas of excellence on a broad front. A few examples should be appropriate.

In 2015, the NRF awarded the NRF Excelleration Award 2015 to CUT as the most improved university in research performance over the recent years. In 2014/15, our Centre for Rapid Prototyping and Manufacturing (CPRM) continued to move from strength to strength, setting new standards of achievement, and propelling the university to even greater success. In August 2015, CUT was awarded the South African Research Chairs Initiative (SARChI) Chair in Medical Product Development through Additive Manufacturing (or 3-D Printing Technology) by the Department of Science and Technology (DST) and the National Research Foundation (NRF). The NRF will support this chair over the next ten years, at R1,67 million per

year. Furthermore, a team of researchers from the Unit for Drug Discovery at CUT discovered a new drug that has major potential to help fight aquatic animal infections. As a result, this research unit acclaimed international recognition in this field.

CUT has the mammoth task of providing skilled human resources to assist with increasing development in the country. In its quest to respond to the national need to the prevailing scourge of unemployment in South Africa, our new focus is on using entrepreneurship education to translate our social and technological innovations into platforms that should contribute to city and regional development. In this regard, the University embarked on a special project during 2015, aimed at promoting entrepreneurship education and regional development. In this regard, the University Senate and Council approved the Innovation and Entrepreneurship Strategy, which focuses on supporting students to become the future entrepreneurs of the region and the country. Entrepreneurship skills are embedded as part of the set of graduate attributes in the core curricula of all new academic programmes.

In terms of the major part of our core mission: teaching and learning, in 2015 our headcount enrolment was 14 192 thus, exceeding the DHET target of 13 619 by 573 (i.e. 5.21% in excess) as the national demand for access to higher education continued to grow. Remaining true to our tradition of addressing national needs, and in collaboration with industry, we introduced four new programmes at undergraduate and postgraduate levels in the fields of Science, Technology and Education, including an Advanced Diploma in Logistics and Transportation Management; a Bachelor of Science in Hydrology and Water Resources Management; a Higher Certificate in Community Development Work; and a Bachelor of Education in Senior Phase and Further Education and Training (FET) Teaching. CUT continued to collaborate closely with the South African Qualifications Authority (SAQA) and the Council for Higher Education (CHE) to enhance the quality of its academic offerings. An additional four new programmes were approved by the Department of Higher Education and Training (DHET), and accredited by CHE, for implementation in 2017. These include a Diploma in Engineering Technology in Civil Engineering; a Bachelor of Engineering Technology in Civil Engineering; a Diploma

in Engineering Technology in Electrical Engineering; and a Bachelor in Health Sciences in Chemical Technology. Furthermore, a total of 15 new programmes were approved by the DHET, and are awaiting accreditation by CHE. We have since received feedback on 3 programmes.

In order to promote student access to higher education, especially for students from disadvantaged backgrounds, a total of 3 827 (of the 14 192 total enrolment) students were supported by means of NSFAS loans, while 2 741 students received bursaries with CUT funds in 2015. Unfortunately, 663 students who qualified for NSFAS funding could not be assisted, as we simply had not been allocated enough funds to assist all the applicants. By now, we are all aware that government has done its best, and it will continue to fund more NSFAS-qualifying students and pay off their debts. From its meagre budget, CUT allocated R16 446 000 (sixteen million, four hundred and forty-six Rand) towards internal financial aid, bursaries and scholarships.

As student numbers continue to grow, CUT embarked on infrastructure development so that the changing academic requirements could be met. With increased enrolments, student accommodation has been a major concern for the university. The University Master Plan, approved by Council in June 2014, seeks to establish a long-term Estates Framework and a medium-term development plan that supports the academic and growth aspirations of the University. Construction of new infrastructure is underway, in addition to the first phase of infrastructure development that ended in 2012/13.

In 2013, R313 807 000 was allocated by the DHET and CUT's Council for new infrastructure development, as part of the DHET 3-300 Infrastructure Development Programme. The DHET 3-300 projects consists of the construction of five (5) new buildings. Three buildings, namely the Engineering Building, Student Accommodation, and the Teacher Education buildings, namely the Student Accommodation, and the ICT and African Languages buildings are located at the Welkom campus.

As part of the infrastructure development programme, two new student residences are currently under construction at both the Bloemfontein and the Welkom campuses, and it is envisaged that they will be fully operational as from the 2nd semester of 2016. The new residences at the Welkom campus are expected to accommodate 252 students, and at the Bloemfontein campus new residence will provide 96 additional beds, thereby alleviating the shortage of residences.

It is pleasing to note that, once again, due to the diligence of management, the institution has been able to work within its budget expectations and received unqualified audit for 2015. There is no

doubt that the financial health of the university, both from a cost control and expenditure perspective, as well as from the judicious management of reserves and trust funds, meets all of Council's guidelines. Council has noted, however, that more attention will need to be given to sourcing third-stream income. The University needs to be less dependent on state funding; which has been dwindling over many years. I am indebted to all stakeholders for the strong support and the respectable growth we experienced in 2015. We are well on the way to making the next chapter of the CUT story equally inspiring and illustrious. The journey ahead will be increasingly difficult, but let us not grow weary, as difficult roads often lead to beautiful destinations.

Prof. Thandwa Mthembu

Vice-Chancellor and Principal

Strategic direction for CUT

Strategic set 1 | Building a Strong Foundation (internal values, relations, and organisational design and transformation)

Building a sound foundation is an essential part of progressing towards Vision 2020. A number of initiatives have been undertaken towards this end. They are highlighted in the following five performance indicators:

- 1. Improving "fitness for purpose" through institutional re-organisation and redesign
- 2. Equity and excellence, growth, and development
- 3. Creation of a culture conducive to excellence, debate and innovation
- 4. Improving relations between academics and students and amongst different CUT community groupings
- 5. Transformation: Priority operational projects to improve fitness for purpose

Strategic set 2 | The Academic Project

The year 2013 was another year in which notable progress was made in the academic portfolio, in terms of aligning the academic project with Vision 2020. The academic project is the sole reason for CUT's existence. The importance of offering quality programmes in teaching and learning, and also in research and innovation, cannot be over-emphasised. There are six objectives under this strategic set, as indicated below:

- 1. Instituting a learner-centred approach to teaching and learning
- 2. Enhancing Science, Technology, Engineering and Mathematics (STEM), but with a human consciousness
- 3. Ensuring the supply of quality STEM enrolments
- 4. Introducing vocational pedagogy and post-school education as a research niche or area of scholarship
- 5. Creating a critical mass in research and teaching
- 6. Enhancing technology-orientated research and innovation

Strategic set 3 | Partnerships, Institutional Advancement

CUT relies on focused and purposeful strategic partnerships in order to achieve its Vision 2020. The university also needs external support in order to ensure that the graduates and innovations that are produced are aligned with industrial and developmental goals. This will improve the effectiveness of the academic project in attaining and sustaining socio-economic outcomes and impact through increased, highly focused, intellectual products and delivery.

- 1. Improving partnerships: The choice of business and industry as primary partners in broader societal development
- 2. Strategic partnerships with business, industry and government to contribute towards sustainable socio-economic development
- 3. Advancing internationalisation
- 4. Building strategic partnerships that contribute to institutional advancement and community engagement

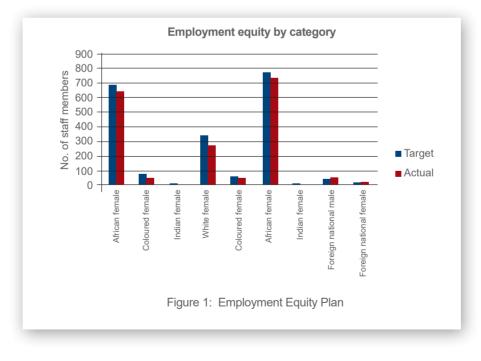
Achievements in 2015

Improve Qualifications and further development of all staff (Applying the twin chanllenge of equity and excellence)

Performance indicator: Progress regarding the achievement of equity targets, aligned with CUT's Employment Equity Plan 2014–2016.

Successes

The graph below depicts the targets and actuals for 2015, as indicated in the Employment Equity Plan.



Provide infrastructure for teaching and learning and student accomodation

Performance indicator: Provision of infrastructure that will enhance the teaching and learning environment of the University, and improve student well-being through the provision of suitable accommodation.

Successes

CUT continues to embark on ambitious infrastructural development projects in order to cater for the growing staff and student needs. In the first tranche of funding, the Department of Higher Education and Training (DHET) provided funding for infrastructure under the DoE-140 Infrastructure Development Programme, which concluded in 2012. Resulting from the funding, CUT has grown substantially over the past few years, with new world-class teaching and research facilities.

The DHET currently finances the DHET 3-300 Infrastructure Development Programme, the details of which are provided in the table below:

Description	Project value	Source of funding		Start date	End date/estimated end date
		DHET	Own funding		
Facilities for people with disabilities	3 000 000	2 800 000	200 000	5 June 2014	31 May 2016
Engineering Building	54 562 000	50 837 000	3 725 000	5 June 2014	31 March 2016
Well-rounded laboratories	2 651 000	2 362 000	289 000	5 June 2014	30 November 2016
Student accommodation (Welkom Campus)	73 433 000	60 389 000	13 044 000	5 June 2014	31 March 2016
Student accommodation (Bloemfontein Campus)	43 744 000	30 100 000	13 644 000	5 June 2014	18 December 2016
Teacher Education Building (Bloemfontein Campus)	53 834 000	45 000 000	8 834 000	5 June 2014	31 March 2016
Information Technology and African Languages Building (Welkom Campus) and infrastructure upgrade (Welkom Campus)	78 583 000	60 462 000	18 121 000	5 June 2014	15 February 2016
Project management	4 000 000	4 000 000	-		
TOTAL	313 807 000	255 950 000	57 857 000		

Table 1: DHET 3-300 Infrastructure ProjectSome infrastructure projects were implemented in 2015. The project to make the CUT environment more relaxing and conducive to vibrant interaction among the campus community (i.e. the remodelling of the area in front of the library) was completed. Vending gazebos were constructed there, and a coffee bar was established in the atrium of the BHP Billiton Building. Other projects commenced in 2015, and will be completed in 2016, such as the refurbishment and extension of the Research and Development Unit's offices. A total of R10 534 283 was spent on these infrastructure projects, excluding all maintenance work.

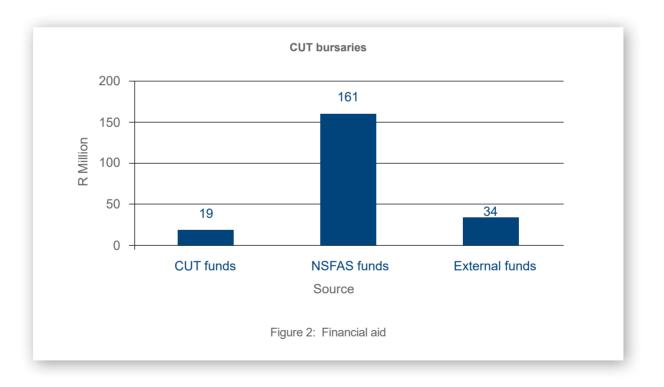
ENHANCE THE FINANCES OF THE UNIVERSITY

Performance indicators: Devising strategies to diversify the support base for the institution; ensuring institutional advancement and better financial sustainability through the strategic partnerships; reorganising the centres and business-oriented units; and targeted and judicious use of the strategic budget.

Successes

Long-term investments decreased by R83 million to R155 million, as investments of R98 million were withdrawn, and there were net returns of R15 million. Cash and cash equivalents decreased by R85 million to R20 million (this being R43 million reduced by the R23 million overdraft facility) for the year ending 31 December 2015. This decrease in cash is attributable to the DHET infrastructure development projects' payments. The NSFAS loan repayments were received before year-end.

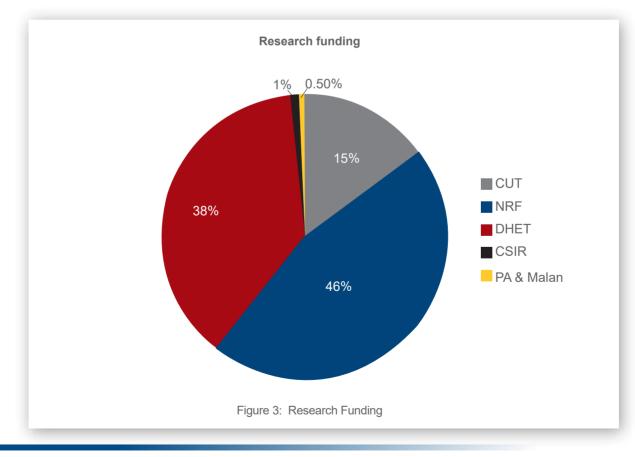
Financial aid was awarded to students in 2015, namely R19 million from CUT funds and R161 million from NSFAS grants. Funding to the value of R34 million was also received from externally funded bursaries. 2 741 students received bursaries from CUT funds, while 3 827 students' bursaries were funded with NSFAS funding. The amount allocated for bursaries is depicted in the graph below.



Student debt will always pose a threat. In 2015, there were almost R289 million in debt balances and R40 million in credit balances, with a net effect of R249 million debit balances. A total of R181 million has been provided for as bad debts. A commitment for historic debt funding to the value of R77 million was received from NSFAS for the years 2013 to 2015. The provision has been reduced by R36 million of this amount, the balance of R41 million relates to students that had either already settled their accounts or received alternative funding over the years. Strategies were put in place to recover debt, including internal strategies for students who are still in the system and the use of debt-collecting agencies/ attorneys for students who have left CUT, but these have not realised the expected results. In this respect, there has been tightening of policies and procedures on debt collection, and control mechanisms have been developed to improve student debt management.

CUT has received unqualified audits every year for the past ten years, indicating that the institution's financial position and performance not only met the requirements of the Higher Education Act, but were also in accordance with the International Financial Reporting Standards. Where audit recommendations were made, they were the given serious consideration they deserved to ensure proper financial conduct, and the status of unqualified audit reports is maintained.

CUT continues to invest in research development as one of its strategic priorities. In 2015, the total research budget was R32.5 million, which was received from various sources. CUT allocated R4,8 million; the National Research Foundation (NRF) provided R14,8 million; the DHET availed R12,4 million; the Council for Scientific and Industrial Research allocated R351 000; and the PA & A Malan Trust allocated R150 000. Allocations from different sources are depicted in the pie chart below.



The Centre for Rapid Prototyping and Manufacturing (CRPM) is arguably one of CUT's research and innovation entities that is more prosperous. The year 2015 was another fruitful one for the CRPM. The commercial value of the 499 industrial projects completed at CRPM during 2015 was R4 357 924, representing a decrease of 4.7% compared to 2014 (a project value of R4 562 838). Furthermore, a total of R572 860 for 52 research projects was financed by the CRPM.

The number of strategic projects that were approved to receive funding from the strategic budget were relatively few compared to previous years, as the decision was made to fund only a few projects that would have a substantive impact. The total value of the five projects that were approved was R977 500.

ENVIRONMENTAL SUSTAINABILITY

Performance indicator: Greater focus on environmental sustainability

Successes

A number of initiatives were implemented in 2015. Solar panels were installed on the recently completed (2013) Engineering Technology building, and sustainability education was incorporated into some of the engineering programmes.

In terms of sustainability, the main challenge that CUT faced in 2015 was that sustainability was not mainstreamed into the divisions. In this respect, the goal for 2016 will be to mainstream it into all the divisions, and to create a central location where all sustainability-related matters are being dealt with.

MANAGEMENT INFORMATION SYSTEM

Performance indicator: Simpler access to central data

Successes

In the year 2015, the institution continued to access data from different systems that are used at the University. Moving forward, the goal will be to have a centralised location for accessing data, such as a Management Information System to ensure the authenticity of the information.

ENHANCE STUDENT SERVICES WITH MAXIMUM IMPACT AND OUTCOMES

Performance indicator: Improved academic administration service to students; improved academic support for students at risk; improved student leadership and governance; and enhanced student life and experiences

Successes

In 2015, advancements in academic services to students were made. The online registration system was successfully implemented during the January 2015 and July 2015 registration periods. Furthermore, students gained electronic access to their personal information, such as course marks, finances and course verification, through the iEnabler System.¹ As system was introduced that improved the turnaround time for responses to students who applied for admission-enhanced communication with them. Auto-progression was also fully functional in 2015, allowing students to progress automatically to the next level of study, eliminating the need for faculties to re-admit students. Academic support continues to be provided to students who are at risk or who are performing poorly academically.

¹ iEnabler System is a user-friendly, browser-based application.

The Students' Representative Council (SRC) (Welkom and Bloemfontein Campuses) continued to receive leadership development training through several leadership development seminars and workshops. Of significance was the joint initiative between CUT and the Free State Legislature, which took place in June 2015. The discussions focused on the characterisation of South African politics and the negative effects of xenophobia. The SRC had its Policy Review Summit in May 2015. All registered student organisations from both the Bloemfontein and Welkom Campuses attended the summit. The summit focused on the South African higher education transformation agenda and the role of the Institutional Forum (IF). Furthermore, a number of the community engagement projects were implemented by the various units at the University, including student residence bodies.

The SRC elections 2015/2016, which were conducted by the Independent Electoral Commission (IEC)'s Free State office, were held in September 2015, and were declared free and fair. In 2015, the South African Human Rights Commission and the Motheo Technical Vocational Education and Training (TVET) College were independent observers of the elections.

On 19 January 2015, CUT FM, the institutions community radio station, went live on air. The station is a vehicle for CUT to communicate a wide array of matters to students and the wider community. Students continue to engage in activities that enhance the community, for example, through Carnival Week, students raised funds for welfare organisations in the Xhariep District and the Mangaung Metro.

The year 2015 was a prosperous one in the sporting arena. The CUT Ixias, rugby team did not perform as well as expected. The team participated in the 2015 Varsity Cup Tournament, but due to challenges in recruiting the best players, CUT managed to obtain an overall 3rd position in the tournament. The CUT Ixias will be competing in the FNB Varsity Cup in 2016. The Women's Rugby Team won the shield at the University Sports South Africa (USSA) women's rugby tournament. CUT Cricket will be represented by two teams in the Free State Super League in the 2015/16 season. The soccer team also continued to perform well in the Vodacom League (now the ABC Motsepe League). Both the men's and women's soccer teams qualified for the USSA tournament in December 2015.

The CUT Choir obtained a first position (standard category) at the Old Mutual National Choir Festival: Free State Provincial Competitions that were held at CUT in September 2015.

IMPROVE THE ORGANISATIONAL CLIMATE, AND SOUND LABOUR PRACTICES CONDUCIVE TO OPTIMAL EMPLOYEE CREATIVITY AND PERFORMANCE

Performance indicator: A healthy relationship between Management and the unions

Summary of achievements: The year 2015 was a very busy year in relation to Management and union interaction, and several robust, but ultimately constructive sessions were held. Due to the non-agreement on 2015's wages during the 2014 year, this process had to be finalised first, and was concluded through the Labour Relations Forum (LRF) and the Joint Bargaining Forum (JBF) in March 2015. During this period, and for the rest of 2015, the University did not experience any strikes, disputes or work stoppages relating to wage negotiations or any other matter before the Forum. The 2016 wage negotiations commenced in May 2015, and followed the same robust interaction as 2014, but the parties were able to reach consensus on the wage increases early in December 2015, which were to be implemented from 1 January 2016. Performance management increases according to the Integrated Performance Management System (IPerMS) for all levels are part of the agreement. Outstanding matters to be discussed are contained in an addendum to the agreement, and all parties are determined to progress with these matters during 2016.

REVIVE THE ALUMNI ASSOCIATION

Performance indicator: An Alumni Association that plays an active role in University affairs

Summary of achievements: There was some progress with regard to rebuilding CUT's Alumni Association. The launch of the Alumni chapters took place in Bloemfontein in August 2015. The launch provided a platform for CUT to grow its alumni membership and to forge close ties with CUT graduates who continue to show interest in the activities that are taking place at both the Welkom and Bloemfontein Campuses. The launch offered an opportunity for CUT to share its vision and exchange ideas on how best the alumni could contribute to the advancement of the University. In September 2015, the second chapter was launched in Johannesburg. Interim structures were put in place at both chapters. A new interim structure was established to run a membership drive in Gauteng. A number of alumni in Gauteng were eager and keen to volunteer their time and energy for the good of the University, and to support the chapter in recruiting more members from the region. The successes of CUT's alumni are featured in external publications. An alumni representative started serving on Council in 2015.

QUALITY TEACHING, LEARNING AND STUDENT ACADEMIC SUPPORT

CUT adopted an ethos where the focus of the learning process should be on the student, rather than on the lecturer. Teaching methodologies are increasingly focusing on the real needs of students.

Performance indicator: Increased and effective use of technology in teaching and learning; improved work-integrated learning (WIL) in all new and re-curriculated learning programmes; and improved student-learning support

Successes

It has been a number of years since the online student portal (Blackboard) was launched at CUT. Blackboard is no longer used as a mere repository of study guides, but as an interactive tool for enhancing teaching and learning. To date, more than 90% of the courses have an online presence. The online assessment tools available on Blackboard are used by certain academics, while the plagiarism tool (SafeAssign) was also used by students and staff to prevent plagiarism.

In addition, state-of-the-art electronic equipment was installed in selected lecture halls and laboratories. All programmes, and the majority of all subjects, have an e-learning presence where Supplemental Instruction (SI) instructors submit material to be placed online to the lecturer for approval. PowerPoint slides, notes, exercises, additional reading material, videos, web links, discussions and memorandums are placed on Blackboard for students to utilise. Clickers were also used in a number of classes. In addition, video recordings of practical classes are placed on Blackboard for students to refer to again after class.

Various teaching and learning support interventions were implemented and monitored to support students and academic staff throughout the year, while new programmes were established. These include SI, the Student Peer Mentorship Programme, a project on Scholarship of Teaching and Learning (SoTL), the Graduate Attributes Project, academic advising, the Writing Centre for undergraduate students, Extended Curriculum Programmes (ECPs), the Mentorship Programme for New Academics, and a yearlong training and development programme.

A formal Academic Advising Programme, developed under the leadership of Academic Development and Support (ADS), was approved by the University Teaching and Learning Committee (UTLC). The Teaching and Learning Co-ordinators from all the faculties convened under the guidance of the Manager: Special Projects in August 2015 to develop a uniform framework for incorporating academic advising into mentorship.

At the meeting, the responsibility of lecturers, Heads of Department (HODs) and the Teaching and Learning Coordinators were clearly outlined. The Academic Advising Programme will be implemented in 2016.

A formal mentorship programme for newly appointed academic staff members was presented, and staff members were equipped with skills, amongst others in teaching and learning, assessment, curriculum development, the use of technology for teaching and learning, as well as the incorporation of graduate attributes and WIL in the curriculum. A mentorship/support programme for black female academics was established in 2015. The programme commenced with 32 participants, but the number varies, and the programme is open to all black female academics. Several workshops that focus on various aspects of their development as academics, namely teaching and learning, innovative assessment practices, scholarship of teaching and learning, and academic work in general, were organised. New criteria for the CUT "grow-your-own-timber" project, Stars of Academia and Research (SoAR), were developed, and four academic staff members were supported.

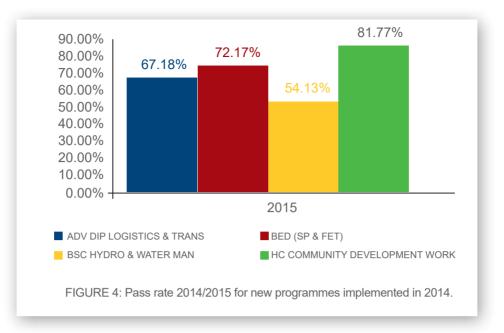
In 2015, CUT witnessed innovations in teaching and learning tools. Library and Information Services (LIS) launched e-books (digital or electronic books) in April 2015. The introduction of e-books is a logical step, as the world is now in the digital age, and it is aligned with the institutional aspirations as a university of technology.

RELEVANT AND EFFECTIVE ACADEMIC PROGRAMMES AND CURRICULUM TRANSFORMATION

Performance indicators: New academic programmes implemented in 2015; re-curriculation of Category A and B programmes, and alignment with the Higher Education Qualifications Sub-framework (HEQSF)'s requirements; graduate attributes implemented in all new academic programmes

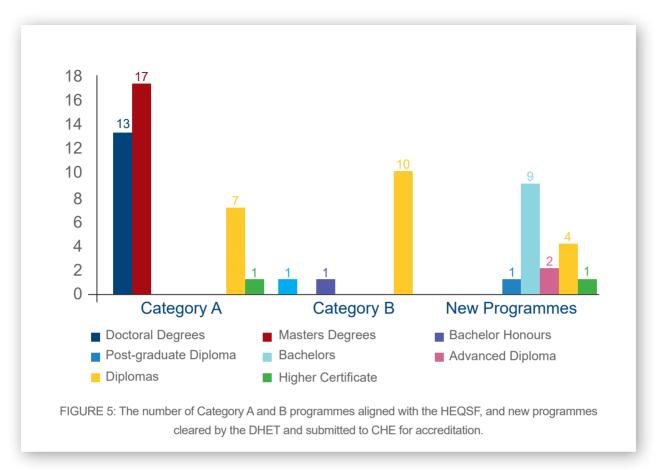
Successes

The successful implementation of the Strategic Transformation of Educational Programmes and Structures (STEPS) process is an integral component of transformation at CUT, which has resulted in an additional four new innovative, demand-driven, and user-oriented programmes being successfully implemented in 2015. A total of 838 students were enrolled in the newly implemented programmes in 2015. These include an Advanced Diploma in Logistics and Transport (13); a Bachelor of Science in Hydrology and Water Management (15); a Higher Certificate in Community Development Work (36); and a Bachelor of Education in Senior Phase and Further Education and Training (FET) Teaching (774). The pass rate following the implementation of these programmes was very impressive, at 67.18%; 72.17%; 54.13% and 81.77%, respectively.



In 2015, an additional four new programmes were approved by the DHET and accredited by the Council on Higher Education (CHE) for implementation in 2017. These are a Diploma in Engineering Technology in Civil Engineering; a Bachelor of Engineering Technology in Civil Engineering; a Diploma in Engineering Technology in Electrical Engineering; and a Bachelor in Health Sciences in Chemical Technology. Furthermore, 15 new programmes have been approved by the DHET and are awaiting accreditation by CHE.

In total, 38 Category A programmes were aligned with the HEQSF and accredited by CHE prior to approval by the DHET, for implementation in 2016. These include 13 doctoral degrees, 17 master's degrees, seven diplomas, and one higher certificate. An additional 12 Category B programmes were aligned to the HEQSF and accredited by CHE, and are pending approval by the DHET, for implementation in 2017. These include ten diplomas, one Bachelor Honours degree and one doctoral degree. A further 17 new programmes were cleared by the DHET, and have since been submitted to CHE for accreditation, including nine bachelor's degrees, four diplomas, one postgraduate diploma, two advanced diplomas, and one higher certificate (figure 5).



Furthermore, the STEPS process led to the introduction of across-the-board graduate attributes that constitute what the institution call the "core curriculum". These help to instil selected generic graduate knowledge, skills and professional behaviours. All students get exposed to these. The institution believes they provide a better link between the knowledge, skills and professional behaviours the graduates earn, the expectations of business/industry, and the broader society. CUT's ten graduate attributes were launched in April 2015 at both the Bloemfontein and Welkom Campuses. The launch was geared at publicising the graduate attributes to both students and staff. This was well received by the CUT community, as evidenced by the active participation of staff and students, http://www.cut.ac.za/graduate-attributes/

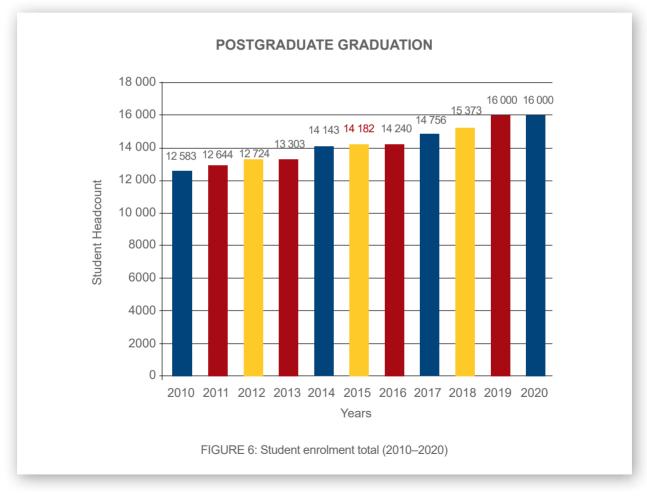
Another innovation related to the curriculum is the incorporation of Higher Education HIV/AIDS (HEAIDS) education into the curriculum. Higher Education South Africa (HESA) (now Universities South Africa) is spearheading this initiative. In January 2015, CUT launched a new project that will integrate HIV/AIDS education into academic programmes, so that it is compulsory for all students.

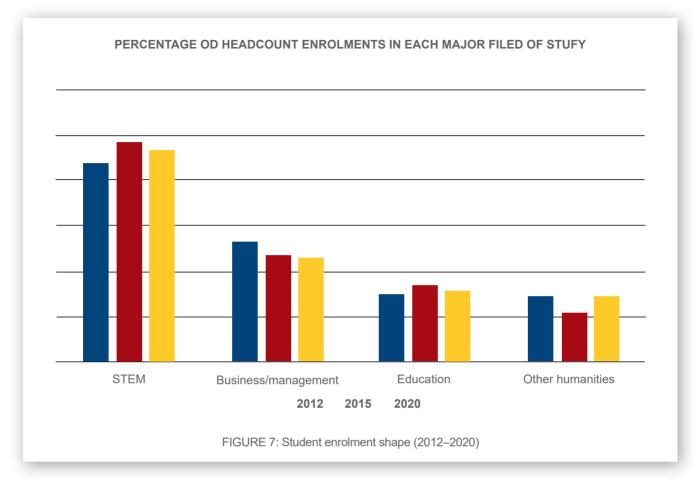
PROMOTING ENROLMENTS IN SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)-RELATED PROGRAMMES

Performance indicators: The headcount undergraduate enrolment targets for 2015 were 45.26% for STEM; 24.66% for Business, Commerce, and Management (BCM); 14.28% for Other Humanities; and 15.8% for Education. The 2015 target for postgraduate student enrolment was 7.27%, as per the DHET enrolment planning tables for 2014/15 to 2019/20.

Successes

In 2015, CUT's enrolment headcount was 14 190 students, thus exceeding the 2015 target of 13 619 by 4.19% (Figure 6). There was an improvement in the priority area of STEM, with an increase in headcounts, from 6 300 (43.90%) in 2014 to 6 846 (48.35%) in 2015, thus exceeding the target by 45.26% (Figure 7; refer to Table 10). The University is taking steps to improve its enrolment in STEM. In this regard, a student recruitment strategy that focuses on the STEM fields was approved in 2013 and partially implemented in 2015. The University is in the process of developing a marketing strategy. In 2015, the postgraduate student enrolment was 6.45% – a figure that falls slightly short of the 2015 target of 7.27%.





ENSURING THE SUPPLY OF LEARNERS QUALIFYING FOR STEM PROGRAMMES

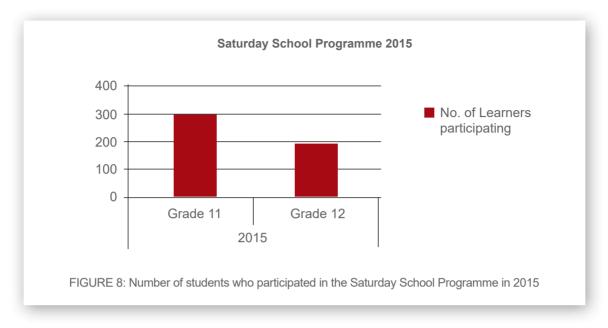
Performance indicators: An increase in the number of STEM-qualifying school leavers in the Free State and the Central region; funds set aside to support learners who excel in Mathematics and Science

Successes

The Schools Advancement Academy (SAA), the umbrella body for projects that support the schooling sector in the Free State, in cooperation with the Free State Department of Education (DoE), continues to make a valuable contribution to learners and schools. With financial support from the partners, the institution does its best to contribute to the success of the province's educational outcomes.

In 2015, the Winter and Spring Schools, funded by Standard Bank, attracted a total of 1 289 learners. The number of subjects offered, from which learners were allowed to select a maximum of three, was increased to nine, with the inclusion of Computer Applications Technology, amongst others. The Saturday School programme, in which a total of 478 learners – 349 Grade 11 learners and 129 Grade 12 learners – participated in 2015 (Figure 8) proceeded well, with funding received from the Manufacturing, Engineering and

Related Services SETA (MerSETA), and in-kind support for the transport of learners from Botshabelo and elsewhere provided by Interstate Bus Lines.



The Educator Mentorship Development Programme, generously funded by the Telkom Foundation for a number of years now, made contentbased interventions with primary school teachers, mainly in the areas of Mathematics and Science. Funders and institutions often ignore this foundational level of education, thus putting the nation in jeopardy.

In support of students who excel in Mathematics and Science, an amount of R16 446 000 was set aside for student bursaries and scholarships in 2015.

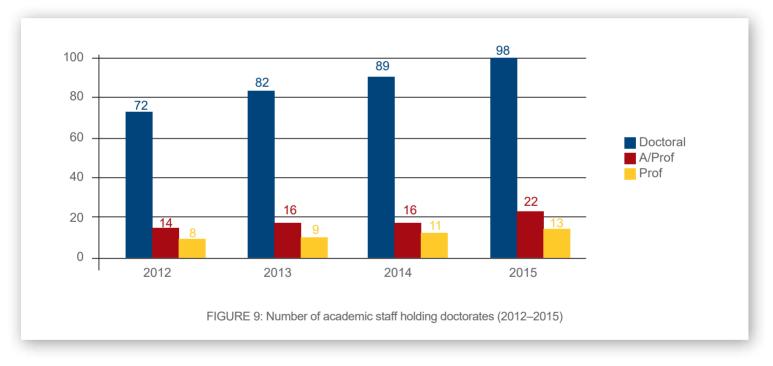
In collaboration with the Free State Department of Education (FSDoE), CUT is in the process of establishing a regional STEM Academy to give more impetus to professional development, training and support in STEM fields. This initiative will target teachers, lecturers, learners and students at schools, TVET colleges, and other post-school institutions. CUT and other reputable academic, research and training entities will provide support in the form of training, equipment, facilities, etc. The FSDoE already provided funding to CUT for the establishment of the Academy, which will primarily be hosted at the Bloemfontein Campus. Relating to partnerships in STEM, MerSETA has also generously supported CUT over a number of years. The epitome of this partnership is the MerSETA Chair that is in place, and that is funded by MerSETA. Its aim is to foster closer engagement between CUT, TVET colleges and the broader post-school sector, so that STEM knowledge could be imparted and shared, and articulation between the University and these subsectors could become more seamless.

INCREASE THE RESEARCH, INNOVATION AND TECHNOLOGY TRANSFER ACTIVITIES, OUTPUTS AND IMPACT

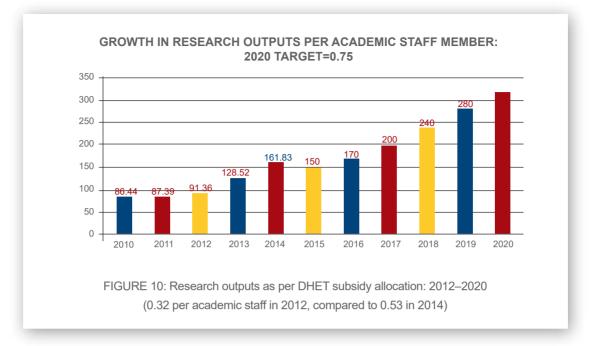
Performance indicators: Improved qualification profiles and the development of academic staff, and increased research outputs and capacity in terms of the targets set in the CUT Research and Development Plan 2014–2020

Successes

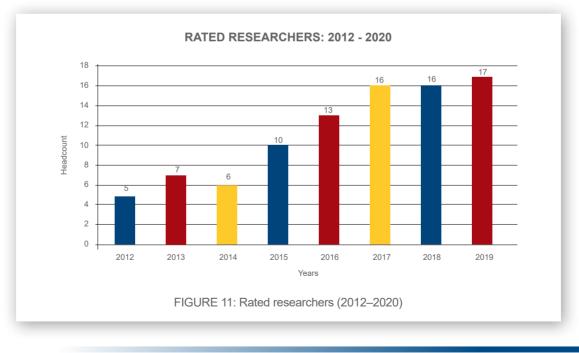
The University is cognisant of the fact that building a critical mass in research and optimising opportunities to grow research outputs are of great importance. It is understood that enhancing the qualification profile of the academic staff of a higher education institution has positive benefits for teaching and learning, research, and community engagement. The institution witnessed an increase in the number of permanent instructional/ research staff members with PhDs, from 89 (33%) in 2014 to 98 in 2015. In June 2015, only 36 (12%) instructional/research staff held the rank of professor (Figure 9). The aim is to increase the percentage of permanent instructional/research staff with PhDs to 50% by 2020, and the percentage of instructional/research staff with the rank of professor to 25%.



As a result, the University has experienced positive growth in its publication outputs since 2010. The University showed a 27% progress, from 68.48 units in 2013 to 87.17 units in 2014 (refer to Section 3.8.3; Table 28).



In 2015, a total of 28 master's degrees and 10 doctorates were awarded, and CUT had nine rated researchers (refer to Section 3.8.4; Table 29). Proffs. AB Ngowi, DP Ngidi, A Swart and Dr P Rambe attained National Research Foundation (NRF) ratings from 2015 to 2020. In addition to their sustained research outputs, the first two professors are Dean of Engineering and Information Technology and Dean of Humanities (which includes Education), respectively.



Collectively, more than R32 million was available for research in 2015 (refer to Section 3.8.2; Table 25 and Table 26).

Pertaining to research, one of the major achievements includes, among others, the discovery of a new drug that has major potential to help fight aquatic animal infections caused by aquatic parasites. The results of this study were published in the Nature Publication Group journal, Scientific Reports, a prestigious multidisciplinary scientific international journal with a very high impact factor. CUT researchers are leading the way in finding solutions that will secure and enhance aquatic farming – something that sustains many livelihoods.

In addition, a Unit for Scholarship of Teaching and Learning (SoTL) was established and approved by Senate in February 2015. In total, 72 staff members participated in the SoTL project. This comprises 13 mentors and 59 mentees. Two international and two national keynote speakers presented keynote addresses at the first international SoTL Conference, organised and hosted by CUT in October 2015.

CUT was awarded the South African Research Chairs Initiative (SARChI) Chair in Medical Product Development through Additive Manufacturing for the period 2015–2019 (first cycle), at a grant value of more than R8 million over five years. Five postdoctoral scholarships were awarded – one in the Faculty of Engineering and Information Technology; one joint postdoctoral scholarship in the Faculty of Engineering and Information Technology; one joint postdoctoral scholarship in the Faculty of Engineering and Information Technology and Management Sciences; and three in the Faculty of Health and Environmental Sciences. In total, of 15 staff members went for industry exposure in 2015, with the support of the DHET Teaching Development Grant (TDG).

STRATEGIC PARTNERSHIPS WITH BUSINESS, INDUSTRY AND GOVERNMENT

Performance indicator: Nurturing strong and symbiotic relationships between CUT and business, industry, and government and its agencies (at national and provincial level, as well as with municipalities and SETAs)

Successes

CUT runs a series of projects in partnership with government at local, provincial and national level, as well as in partnership with several businesses. Together with the Department of Science and Technology (DST) and the University of the Free State (UFS), CUT has formed a tripartite alliance, the Regional Innovation Forum, Free State (RIFFS). RIFFS operates under the custodianship of CUT, with funds received from the DST. The year 2015 started with the news that the DST will be putting the national Regional Innovation Forum initiative on hold, pending investigations into the effectiveness of the project. This implied that the planned RIFFS activities following the 2014 financial term had to be revisited, with the existing human and financial resources in mind. The Steering Committee was informed of this, and a closing meeting was held. It was decided that RIFFS will manage out the remaining funds towards the end of 2015, and that further existence of the entity will be accommodated under the new Deputy Vice-Chancellor: Research, Innovation and Engagement portfolio.

RIFFS has been acting as a catalyst in the establishment of innovation-related partnerships across the region. Such partnerships include mutual projects, funding, collaborative events, promotional activities and competitions. Mutual projects included the establishment of a Free State Science and Innovation Park; the establishment of a Solution Exchange Platform; the establishment of a Renewable Energy Task Team; and the establishment of a CUT Design School. Collaborative events included an Entrepreneurial Education Seminar, in co-operation with the Organisation for Economic Co-operation and Development (OECD); a symposium on quad-helix partnerships; a number of regional competitions and events into assistive designs, master caterers and social innovation; engagement sessions and meetings with stakeholders from the Free State Economic Cluster, UFS, non-governmental organisations (NGOs) and business support entities; and hosting workshops on creativity, design principles and community engagement, http://riffs.info/

A number of events were hosted that promoted partnerships, such as a seminar on the quad-helix partnership concept, and high-level meetings with government, higher education stakeholders and the broader society. The internet and local media resources were also utilised to enhance partnerships and promote a spirit of collaboration. For the reporting period, RIFFS/CUT established notable partnerships with the following stakeholders: Department of Economic, Small Business Development, Tourism and Environmental Affair (DESTEA); Free State Department of Health (FSDoH); Free State Premier's Office; Mangaung Metro (MM); International Labour Organisation (ILO); Flanders Government; UFS (Research, Innovation and Postgraduate School); the Free State Development Corporation (FDC); the Mangaung Chamber of Commerce and Industry (MCCI); the National Empowerment Fund (NEF); ABSA; the Da Vinci Institute; *Oos Vrystaat Kaap Bedryf Beperk* (OVK); and the Technology Innovation Agency (TIA). Sections within CUT that were instrumental in making these efforts a success were the Office of Research and Innovation, the CUT Hotel School, the Product Development Technology Station (PDTS) and the CRPM.

As indicated above, the value of the 499 projects completed at the CRPM during 2015 was R4 357 924, which was a decrease of 4.7% compared to that of 2014 (a project value of R4 562 838). Approximately 4 000 parts were manufactured for the 499 industrial and research projects. Furthermore, a total of R572 860 was spent on 52 research projects, compared to R350 530, which were spent on research projects during 2014. The CRPM was successful in three applications (with a total value of R1 215 000) for TIA Seed Funding. The PDTS is currently running smoothly, and most of the targets for the financial year were already achieved. The PDTS received feedback from the annual Monitoring and Evaluation Session by TIA.

Since its inception, the CRPM has continued to create a significant impression countrywide. In 2015, the CPRM, in partnership with a team of three doctors from the Free State Central region; Materialise (Belgium); Technimark; Stellenbosch University; and the Council for Scientific and Industrial Research (CSIR), put a smile on many patients' faces that were deformed. Recently, the doctors, Kobus Hoek (Bloemfontein); Phillip Jonsson (Kimberley) and Prof. Cules van den Heever performed another corrective prostheses surgery on a Kimberley patient, removing a tumour and restoring the proper functioning and aesthetics of the mouth, face and jaw using Additive Manufacturing technology. This operation was the second of its kind in the country.

With respect to the 2015/2016 financial year, three innovation projects, with a total value of R1,146 million, were approved for funding by the TIA. This is in addition to the four projects that were initially approved for funding to the value of R1,46 million for the 2014/2015 financial year.

A contract worth R6,272 million, which is to run over two and a half years, was signed with the CSIR, for CUT's contribution to this national programme. The DST's Research and Development Programme is currently funding three projects, namely Qualification of Additive Manufacturing of Ti6Al4V for Medical Implants and Aerospace Components; Design for Additive Manufacturing; and Polymer Additive Manufacturing. CUT is the national leader of the first project, and a participant in the other two projects.

In 2015, four spin-off companies emerged from amongst the staff and students. Through project initiatives by CUT Innovation Services (CUTIS), a company called AddColour (a software application company) was established. Through CUTIS' partnership with MerSETA, AddColour has developed two customised software applications for MerSETA. Another pair of students, in partnership with one of CUT's lecturers, established a company called Softbrain. The innovation behind this company emanates from a master's research project in IT. The technology developed within the broad field of the Internet of Things (IoT) will go a long way towards helping organisations to manage their assets, as it has the capacity to track asset movements. Two businesses spun out from the CUT Incubator during 2015, namely Silver Flame Trading, which opened an information and communication technology (ICT) shop in the Middestad Centre here in Bloemfontein, and Tamikk Fatuku Sterilizer, which established a factory in Bultfontein. CUT want more and more of the institution's students to do the same in the near future, not by default, but by design through a well-conceptualised and delivered entrepreneurship education programme.

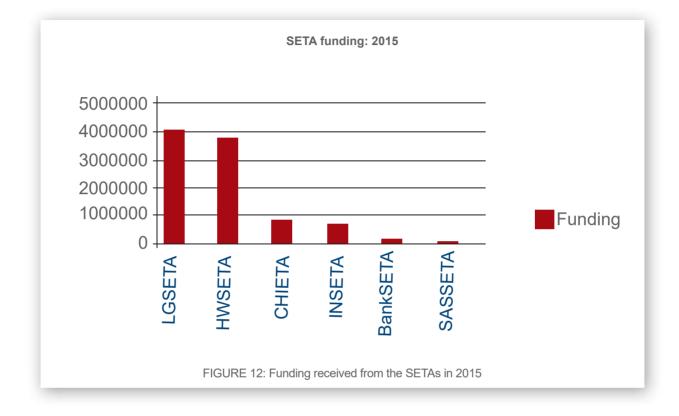
The focus on a number of these spin-off companies on ICT indicates that many years' efforts at establishing a regional ICT Hub in the Free State are slowly bearing fruit. An international partnership, to be cemented in 2016, with the *Instituto Technologica de Sonora* (ITSON), which spun off an ICT company called Novutek in 2004, will surely help us to coordinate and commercialise all these ICT-related spin-off companies, in order to offer a range of ICT, and in particular software, products and services. CUT participated in the Free State-China Engagement Week. Representatives of RIFFS, Communications and Marketing and the PDTS presented papers at the event, which was followed by a visit to CUT. The engagement reaped promising rewards, including the possibility of collaboration on manufacturing in the region, as well as the establishment of a Confucius Institute.



Seen here at CUT stall with Mr Modisaotsile Kodisang, BTech Marketing student in the Faculty of Management Sciences is Mr Sun Shun, Senior Marketing Manager SEPCO Africa, enquiring about CUT's post graduate programmes in Engineering.



Exhibitors and CUT staff were ready to assist students at the SETA Career Fail CUT's Centre for Work-integrated Learning and Skills Development hosted the SETAs Career Fair in October 2015. 12 SETAs participated in the Career Fair, and 400 students attended the event. In 2015, the Centre for WIL and Skills Development raised a total of R11,7 million from the Local Government SETA (LGSETA); BankSETA; Insurance SETA (INSETA); Chemical Industries Education Training Authority (CHIETA) and the Health and Welfare SETA (HWSETA) to assist students with placement stipends, internship and bursaries (see Figure 12 and Table 2).



SETA	Funding	Students
LGSETA	44 000 00	265
HWSETA	42 000 00	150
CHIETA	12 000 00	30
INSETA	10 500 00	25
BankSETA	4 500 00	25
SASSETA	4 000 00	8
Total	117 000 00	503

TABLE 2: Students benefitting from SETA funding in 2015.

CUT, in partnership with the Association of Accounting Technicians (AAT), provide learners with basic finance and accounting skills. In this way, entrepreneurship is enhanced through small-, medium- and micro-sized enterprises (SMMEs). AAT (SA) offers a practical qualification targeted at all staff levels, from administrative to professional accounting positions. The focus of the AAT Certificate and the FET Advanced Certificate is to address business needs in terms of basic finance and bookkeeping. Candidates are empowered to perform basic finance and accounting functions.

CUT, in partnership with the Maccauvlei Learning Academy, offers the BTech Human Resources Management programme to qualified delegates. These delegates obtained an NQF level 5 qualification from the Maccauvlei Learning Academy, plus a recognition-of-prior-learning (RPL) NQF level 6 assessment. The delegates are Middle and Senior Managers from the commerce and industry in a predominantly Vereeniging area.



The fourth group of Maccauvlei graduates: their special moments were shared with colleagues and fellow students, Deputy Vice-Chancellor: Academic and Research, Prof. Henk de Jager (centre); CEO for Maccauvlei Learning Academy, Mr Jan Hollenbach (left); Dean of Faculty: Management Sciences, Prof. Albert Strydom (right); Prof. Tshedi Naong, Head of the Department: Business Management (back row-left); and Prof. Crispen Chipunza, Associate Professor: Human Resources Management (back row-centre).

ADVANCING INTERNATIONALISATION

Performance indicators: Establishing partnerships within the Southern African Development Community (SADC) region; consolidating other partnerships within the continent and in other parts of the world; enhancing partnerships through staff development programmes (master's and doctoral degrees) for some of the universities on the continent; increasing research collaboration with other African institutions.

Successes

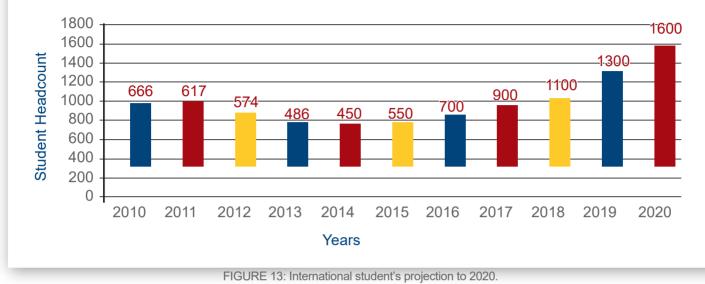


Staff members at the International Office, from left: Ms Martina Moss, Admin Coordinator; Mr Danny Bokaba, International Student Support Services; Ms Refilwe Moleyane, Academic Exchange Coordinator; Ms Cecilia Sejake, International Student Advisor; and Mr Arthur Johnson, Director; International Office.

Established in 2014, the International Office launched the International Student Association (ISA) in May 2015. CUT considers this launch an important development towards the integration of international students into the broader CUT community. The launch was geared towards promoting student and staff exchange, instilling internationalisation into the curriculum, and supporting the Internationalisation Strategy of the University, approved in 2013, which calls for the globalisation of its academic offerings, amongst other objectives.

The 2015 target for international student enrolments, 444 students enrolled at CUT, against the target of 550 students. Currently, approximately 3.2% of the student body comprise international students. The institutional objective is to increase this proportion to 10% by 2020, with the majority of these students recruited from the rest of the African continent. Inbound and outbound exchanges were doubled. Furthermore, four CUT staff members were awarded individual staff exchanges to Ghent University, Belgium and Newcastle University, England, with another two colleagues hosted by Uppsala University in Sweden under the European Union's Erasmus Mundus Programme. Furthermore, during a recent trip to Thailand, a delegation of the Faculty of Humanities, led by Prof. David Ngidi, signed two Memoranda of Understanding (MoUs) with Khon Kaen University and Mahasarkham University respectively. Finally, Prof. Ngidi represented CUT at the Brazil, Russia, India, China and South Africa (BRICS) University Presidents' Forum held in Beijing, China, where he presented a paper to one of the panel sessions.

INTERNATIONAL STUDENTS: 2010 - 2020



COMMUNITY ENGAGEMENT

Performance indicator: Promote vibrant engagements with community, both locally and nationally

Successes

CUT continues to support the Free State school system and, more fundamentally, in making a difference through the SAA project as part of community engagement (CE). In 2015, CUT focused on integrating CE into the model that CUT espouses. In this model, the curriculum will be the driver of all community engagement activities and projects. Service Learning (SL) and WIL are vital mechanisms in delivering CE. Many of the projects have conceptualised the model CUT uses, and as a result, there was improvement. There are a number of other pockets of innovation at CUT – to mention but a few CE projects that were implemented: Traditional Councils' Agricultural Development Programme; Haven Old Age Home Cleaning Project; ENACTUS CUT; and Strongbow Project.

Onsite planning was being conducted and funding applied for a project whereby Traditional Councils (Chiefs) and some municipalities in KwaZulu-Natal and in the Eastern Cape Provinces will be assisted with agricultural planning, mentorship and training in order to convert unproductive land into commercially sustainable production systems. Management positions for agricultural graduates and WIL positions for current second-year students will be created. Impact is measured via the number of farms that are assisted, their outputs in terms of profitable agricultural produce, the number of CUT graduate students that are employed as Assistant Farm Managers on the projects, and the number of CUT WIL students that are placed on these farms. Lecturers in CUT's Department of Agriculture will also obtain first-hand experience in farm management through this project, thus improving their insight and frame of reference during lectures, which will be to the advantage of students.



Prof. Carlu van der Westhuizen, Department of Agriculture; Chief Ndamase from the Bukweni Traditional Council near Libode in the Eastern Cape and other member of the community.

The Life Sciences Students' Organisation had a project at Haven Old Age Home. The project was aimed at assisting the management and cleaners of Haven Old Age Home. Given the impaired immune systems of the elderly people, it is critical that their environment be hygienically clean. The project paved forward the relevance of scope of practice within institutions such as old age homes. The project provided students with skills and knowledge regarding institutions such as old age homes and the involvement of Environmental Health Officers. More importantly, the project formed part of the Department of Social Development's mandate. The project will be conducted in cooperation with other external stakeholders annually as part of Mandela Day.

Ms Sophie Hoorens from Ghent University in Belgium and Ms Carolin Oertle from Aalen University in Germany CUT Exchange students dedicated their 67 minutes at Joe Solomons School.

16





Trees planted at Nzame Primary School.

ENACTUS is a global, non-profit organisation in partnership with higher education at more than 1 500 universities, in over 40 countries. In preparing university students to make a meaningful contribution towards a better world as entrepreneurs and business leaders, ENACTUS challenges students to address real-world economic, social and environmental matters in their communities. As catalyst for the development of leaders who will create a better world through business, ENACTUS provides students with the most relevant and rewarding opportunity to use their leadership abilities to improve the world in which we live.

The Strongbow Project is a capacity-building project developed by the Horn of Africa Regional Environment Centre (HoA-REC) to enhance the ability of higher education institutions to enable them to provide gender-sensitive, quality education and training in Natural Resources Management, Tourism and Ecotourism. The project is funded by the Netherlands Organisation for International Co-operation in Higher Education (Nuffic). Total project costs amount to \in 3.815.441.



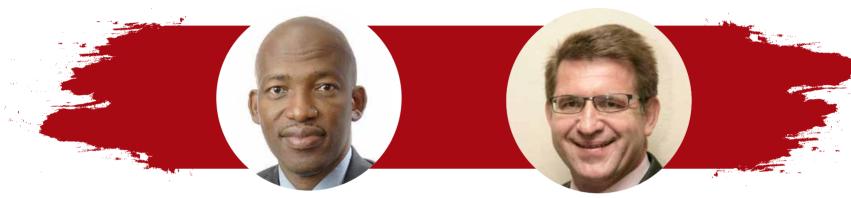
In October 2015, the Unit for Sustainable Water and Environment was launched. The Unit was established as a response to the water crisis that the country is facing. CUT, along with stakeholders from various organisations, including the International Institute of Applied System Analysis, Bloemwater, and national universities are coming together to develop innovative ways to solve the problem of water scarcity, http://www.cut.ac.za/uswe/

CUT continues to promote vibrant engagements with the community, both locally and nationally. A series of public lectures that focused on a range of topics were held throughout the year. To mention but a few, Prof. Yuri Maltsev, a published scholar in Economics and Economic History, presented a seminar entitled *Economic Freedom and Economic Success around the World*. A prestige lecture on "The Constitutional Right to Equality" was presented by Judge Navi Pillay in August 2015, a renowned international jurist. Furthermore, Dr Herman Mashaba, an accomplished businessman and a CUT alumnus who was awarded an Honorary Doctorate by CUT in 2013, presented his second annual lecture on Entrepreneurship in September 2015, where Prof. Kurt Leube was invited as the guest speaker. Prof. Kurt Leube is a Research Fellow at the Hoover Institution, Stanford University and an expert on the Austrian School of Economics (more on these engagement in the Special Events section).



Management and Administration

Administrative structures in both the support and academic management divisions have been aligned. This section deals specifically with managerial and administrative aspects of the institutions operations.



Prof. Thandwa Mthembu Vice-Chancellor and Principal Prof. Henk de Jager Deputy Vice-Chancellor: Academic and Research



Dr Nothemba Mrwetyana Registrar Prof. Mojalefa Ralekhetho Consultant in the Office of the Vice-Chancellor Dr Solomon Makola Director: Welkom Campus

GOVERNANCE AND STRATEGIC MANAGEMENT

This section specifically addresses managerial/administrative aspects of the institution's operations, including new Executive and Senior Management appointments.

Institutional governance and management are high on the agenda, in order to ensure that the academic project continues without fail, and in an environment conducive to its success. Towards this, the University assessed its structures and Council procedures and, where appropriate, aligned these to the relevant recommendations of the King III Report, towards the development of an enhanced institutional culture and climate, where leadership at all levels of the University was developed, strengthened and highlighted as a strategic priority. In this way, resistance to change that might arise will be monitored, and key interventions will be undertaken to address the underlying factors.

In 2015, Council saw structural changes regarding the termination of the terms of office of Mr Loate, Prof. Setai and Ms Qegu on the CUT Council in November 2014, as well as the appointment of Dr Linda Chisholm, Ms Nombulelo Nxesi and Advocate Thabani Masuku as Ministerial Appointees on the CUT Council. Dr L Chisholm withdrew her membership as Ministerial Appointee on the CUT Council. Subsequently, in December 2014, the Minister of Higher Education and Training, Dr BE Nzimande, appointed Mr Nkosana Dolopi, Dr Tracey Gutuza, and Advocate Mantshare Beatrice Matlejoane to fill the outstanding ministerial vacancies on the CUT Council.

The matter pertaining to the legitimacy of the appointment of some of the new Council members, due to conflicts of interest arising from their affiliation or association with other universities, was addressed by Council in accordance with its conflict-of-interest position. At its meeting in March 2015, Council resolved that the membership of Dr N Chinje, Dr T Gutuza and Dr G van Gensen would not be rescinded. They shall remain Council members until their terms of office expire. In 2015, Dr Boet Troskie, Chancellor and a founding member of CUT, resigned as Chancellor, and Judge Molemela was elected as the new Chancellor of CUT. She has since accepted the nomination and she will be inaugurated in 2016.



Dr Boet Troskie (2010 – 2015)

Mr Mosiuoa Patrick Lekota (1997 – 2009) Chancellor elect, Madam Justice Mahube Molemela Following the national #Fees-must-fall campaign, the institution have seen students at many universities protesting, and damages to universities' property were reported. Demands by CUT students included the reduction of the upfront payment or deposit amount they pay upon registration; the 50% settlement of previous debt required before those who are in debt may register; cancellation of all student debt; and, possibly, other non-student-related matters that developed, such as outsourcing. The Registrar and the Chief Financial Officer (CFO), and to a limited extent the Vice-Chancellor and other members of the Executive Team, played crucial roles in engagements with the SRC, which led to amicable solutions without any significant damage to CUT property – only one broken window was reported.

With regard to strategic management, in 2010, CUT's Council approved Vision 2020 and the associated Strategic Plans 2010–2015 and 2016–2020. These Strategic Plans are dynamic documents that provide a road map for attaining the institutional goals. In 2015, the institution reached a halfway point towards the implementation of Vision 2020. It was time to review it and to ensure that the University remains focused on attaining the goals of Vision 2020. A revised Strategic Plan was approved by Council at its meeting of November 2015, and was subsequently submitted to the Department of Higher Education and Training (DHET) in December 2015, document available online http://www.cut.ac.za/publications/. Due to the challenges that the academic portfolio has been facing, in particular around research, and taking into account the commitments in relation to the achievement of Vision 2020, an exercise of re-aligning the divisions within the University was undertaken. To allow for more attention to be placed on research, the Academic and Research portfolio was split into two portfolios, namely the Research, Innovation and Engagement portfolio and the Teaching and Learning portfolio. A proposal around the re-alignment of Executive Management with Vision 2020, in function and structure, was also approved by Council in November 2015.

Enterprise risk management has become an integral part of strategic management. In 2015, heightened awareness was created around enterprise risk management. The implementation of controls to mitigate strategic risks was monitored throughout the year.

Executive, Senior Management and administrative appointments

Academic and Research: After a long recruitment process and rigorous interviews, Prof. Samson Mashele was appointed as Dean: Faculty of Health and Environmental Sciences; Prof. Albert Strydom was appointed as Dean: Faculty of Management Sciences for another five-year term; and Prof. David Ngidi's contract as Dean: Faculty of Humanities was also renewed for another five-year term. The position of Head of Department: Mechanical and Mechatronic Engineering has not yet been filled, and Mr Nic du Toit remains in an acting position until a suitable candidate has been appointed. The position of Head of Department: Hospitality Management has not yet been filled, and Prof. Piet le Roux acted in this capacity until the end of 2015.

Resources and Operations Division: With the completion of the reorganisation of the Human Resources Section at the end of November 2014, a new Director, Mr Leon van de Venter, assumed duty in January 2015. Ms Precious Dube was appointed as the new CFO, following the resignation of Ms Martine van der Merwe, the former CFO. Ms Dube joined CUT on 1 September 2015. Prof. Neil Garrod left the employ of CUT at the end of September 2015, as his probation was not confirmed. Prof. Mojalefa Ralekhetho, previously an employee of CUT, is assisting the University, and is currently the Executive responsible for HR and Estates Management (including Facilities Management), which are part of this Division.

Prof. Ralekhetho retired from CUT in January 2012, but returned to take care of parts of the Resources and Operations portfolio on a temporary basis whilst the recruitment process proceeds. Dr Pinky Mrwetyana, the Registrar, is taking responsibility for IT and Protection Services; and Ms Precious Dube, the new CFO, reports directly to the Vice-Chancellor and Principal on matters pertaining to finance.

Strategy Execution Unit (SEU): Mr Tembile Kulati, who held the position of Executive Director: SEU since March 2014, left the employ of

CUT at the end of June 2015, when his probation was not confirmed. Another outcome of the re-alignment of the divisions' functions in 2015 was the decision to disband SEU in order to pave the way for a new Executive position of Deputy Vice-Chancellor: Research, Innovation and Engagement. SEU was established as a special project, for a specific purpose, and its role ended. Some of SEU's functions will be transferred to other divisions. In the interim, Prof. Ralekhetho will also manage SEU. The position of Executive Director will be replaced by a lower-level position of Assistant to the Vice-Chancellor and Principal. Prof. Ralekhetho previously acted in the Executive Director position during his tenure at CUT.

Financial Sustainability

CUT experienced a total growth of 6% in total income. This was the result of a 3% increase in state grants (contributing 52.85% of the total income); a 5% increase in student income (39.61% of the total income); and a 56% increase in contracts income (7.54% of the total income). In 2015, 99% of the University's income was spent on the activities of the institution, compared to 118% (almost 104% if the debtors' impairment is excluded) of the total income in 2014.

The final quarter of 2015 presented a new threat to the higher educational sector, with the students' #Fees-must-fall campaign, which resulted in a 0% increase in student fees for 2016, and potentially a similar call being anticipated in future years. CUT's dependence on student-associated income is approximately 40% of total income. If the call for a free education were to be headed, with no sustainable alternative from the government immediately in view, this would have grave consequences in the sector.

Resulting from the above uncertainty, CUT's strategic intention is to increase its focus on seeking alternative funding; the most obvious and potentially sustainable being the conscious growth of its third-stream income. Whilst this might be a medium- to longer-term approach, consideration is being given to funding some critical balance sheet items through debt.

The University now operates under a tight procurement policy that was updated in 2014. The latest promulgated acts, as well as the recommendations made by Executive Management in respect of the University's procurement processes, were incorporated into the policy.

CUT is a member of the Purchasing Consortium of South Africa (PURCO), and closer cooperation is forged through frequent discussions, in order to ensure that CUT benefits from the discounted buying power PURCO enjoys as a consortium. The system for administrative use is ITS Integrator V3. The system allows for real-time access to information, including access to financial, human resources and student information. It also provides access to operational services such as vehicle bookings, online ordering and payroll.

Human Resources

Salary anomalies remained a concern in 2015. In July 2014, a comprehensive plan was implemented that ensured that all salary scales are compliant with the stipulations of the remuneration policy. However, in order to resolve the matter finally, the University engaged PricewaterhouseCoopers (PwC) to assist in this regard by analysing the extent of the anomalies and offering some recommendations for consideration and implementation in the next year.

Control Measures, Governance Reviews and Internal Audit

CUT maintains a system of internal control over financial reporting and the safeguarding of assets against unauthorised acquisition, use or disposal. Such systems are designed to provide reasonable assurance to CUT, the Audit and Risk Committee and Council regarding an operational environment that promotes the safeguarding of assets and the preparation and communication of reliable financial and other information. Responsibilities and duties are clearly segregated for control purposes.

Since the outsourcing of the internal audit function in 2007, the quality of the University's internal audit function has improved significantly.

The now combined Code of Ethics and whistle-blowing policies, as the policy and procedure for ethical governance, management and operations has been put in place to ensure good administrative practices in executing operations.

Information and Communications Technologies (ICT)

For purposes of information management, CUT has implemented the Higher Education Data Analyser (HEDA) system, which makes use of data sourced from the Higher Education Management Information System (HEMIS) for submission to the DHET. In addition, CUT uses Oracle Discoverer, which draws operational data from the ITS database. The reports generated from these systems are used for planning, monitoring and decision-making across CUT.

During the past few years, CUT has also made use of the ordinary HEMIS subsystem on the ITS system for statutory reporting on various aspects of the core business and other non-academic support functions. Statistical reports and information on the institution's performance in relation to its targets are published periodically in the Size and Shape Monitor and the Student Performance Monitor.

The University recognises the importance of authentic information. As a result, efforts are afoot to ensure that all information the University uses or publishes for general consumption is audited and centralised in an MIS.

Risk Management

Council committed CUT to a process of risk management that is aligned to the principles of the King III Report and *the Higher Education Act* (Act 101 of 1997). The Audit and Risk Committee, as a standing committee of Council, is specifically responsible for the system of risk management, and thus reviews the risk reports of the University, reporting to Council on key risks facing the University and associated risk mitigation responses. The Constitution of the Committee was revised to incorporate all risk-related matters, and as such, Council approved the renaming of the Audit Committee to the Audit and Risk Committee towards the end of 2012.

Management is accountable to Council for designing, implementing and monitoring the process of risk management, and integrating it into the day-to-day activities of the University. The development of management structures that focus on certain key activities within the University continues. CUT continuously aspires to raise its level of risk management maturity through the revision of the Framework for Risk Management.

Risk monitoring includes processes such as:

- strategic risk workshops, where risks are monitored and adjusted to the unique circumstances of the University;
- registers declaring financial interests and gifts;
- internal audit reviews;
- compliance reviews; and
- Senior Management reviews on work performed in accordance with policies and procedures.

Risk assessment

University Management held a Strategic Risk Assessment Workshop in September 2015, which was facilitated by the external auditors of the

University. Following the Strategic Risk Assessment Workshop, an updated Strategic Risk Register was compiled. The management of the risks identified at the workshop is currently being integrated into the day-to-day activities of the University.

Risk assessment and identification remain an on-going process within the university. These may be classified as "emerging risks" after the work of completing the risk register is done. Often these may go unnoticed as the leadership of the university focuses on mitigating risks on the register in their daily monitoring and execution of the university's strategic plan. The University is putting in place mechanisms to capture emerging risks to bring to the attention of the university leadership for mitigation.

Fraud risk management

Any dishonesty, when detected, is taken seriously and dealt with on an ongoing basis. In response to the recommendations made in the 2015 internal audit report on the management of fraud, improvements to the Framework for Fraud Risk Management will continue in 2016.

Risk categories

Management is continuously developing and enhancing its risk and control procedures to improve the mechanics for identifying and monitoring risks. Some of the top ten risks faced by the University in 2015 include:

- resources to implement strategies;
- policies and procedures; and
- curricula and qualifications.

Institutional risks

Political, social and economic risks:

CUT students joined other South African universities in the #Fees-must-fall campaign. Students demanded a 0% increase in student fees for 2016, to which the government agreed.

Financial sustainability:

The implementation of the Resources Allocation Model was rolled out in 2014, and continued in 2015.

Operational risks

Fraud and theft:

Theft from lecture halls and offices was problematic. In most cases, force was not used to gain access to buildings/offices. The following measures are being implemented to curb theft:

mag touché devices are installed at all points and buildings;

- hourly situation reports by security officers on site;
- augmenting security personnel with the recruitment of new staff;
- six new security officers were appointed, and 14 additional security personnel were requested for 2016; and
- training of existing staff to commence once Human Resources has approved and consulted with service providers.
- Human Resources: a revised Performance Management System was implemented in 2015.
- Business continuity planning was piloted in the Resources and Operations Division in 2015.
- Information integrity and reliability:

The use of informants and secret agents is important in this regard.

Physical risks:

Safe use of workplace machinery and other equipment.

Financial risks

- Financial instruments (interest-rate risk, credit risk, foreign-exchange risk, etc.).
- Regulatory/statutory/legal risks:

In terms of adhering to standard regulatory measures to prevent risks, the University was thus far not subjected to any legal costs in this regard.

Insurance risks:

If proper safety measures are not implemented, these risks could cost the University dearly in terms of claims lodged by individuals.

Conflict Management

Management and the recognised unions at the University continued to engage via the appropriate structures, such as the Labour Relations Forum (LRF) and the Joint Bargaining Forum (JBF), to consult on and negotiate appropriate matters. The JBF negotiations for salary increments were agreed upon in December 2015, while matters of mutual concern (contained in a memorandum agreed upon as part of the wage agreements) will be finalised in the next year. The across-the-board increases in salary increment were implemented as from 1 January 2015, and the performance-based salary increment will be finalised as soon as the performance evaluations have been concluded and verified. Management and the recognised unions regularly engage on a range of matters, and the relationship between CUT and the unions remains open, robust and productive.

The #Fees-must-fall campaign threatened the stability of all universities in South Africa, including CUT. In an attempt to manage conflict proactively, Management and the Students' Representative Council (SRC) had several engagements to resolve matters such as, amongst others, the time lost during the student protests; the extension of examinations; the required initial minimum payment; the settlement of debt for those who owe the University money; and the outsourcing of services. Consensus was reached on a number of these matters. In order to compensate for the time lost during the student protests, which was deemed three days, the commencement of CUT's examination period was deferred by three days, from Monday, 26 October 2015 to Thursday, 29 October 2015. Different scenarios were agreed upon to address the challenge of students who had outstanding debts, and, as a result, the majority of students were allowed to register in 2016. The outsourcing plans would be discussed at a later stage in 2016.

Transformation

The Ministerial Committee's report on "*Progress towards transformation and social cohesion and the elimination of discrimination in public higher education institutions*", also known as the Soudien Report, was released in 2008. At the time, CUT had already developed a Transformation Framework to address the matters raised in the White Paper 3. Therefore, in response to the Soudien Report, CUT made it known that University adopted a Transformation Framework Vision in 2008, namely **Year 2020: Vision of the transformation agenda**. The Transformation Framework provided a foundation to some ongoing developments within the University that were raised in the Soudien Report.

Transformation initiatives

In 2015, the University undertook a review process of its Transformation Framework, taking the Soudien Report into consideration. The University decided to develop a Transformation Plan with objectives, performance indicators and targets linked to its revised Strategic Plan 2016–2020. The plan is being consulted with the various stakeholders, and takes into consideration resolutions of the Transformation Summit held in October 2015.

"The mechanisms for holding institutions accountable for transformation goals should be strengthened. Transformation indicators should urgently be developed for the system to help steer transformation goals to support effective implementation of transformation imperatives." A mentorship/support programme for black female academics was established in 2015, aligned with one of the summit resolutions, which states that:

"The sector should build on the nationally co-ordinated programme to enable accelerated capacity development, greater representation and improved retention of blacks and women in the academic workforce, professoriate, and university management and governance structures."

On June 2015, Council held a workshop to review progress with regard to transformation, and a decision was taken that: "The role of the Institutional Forum (IF) is to address all issues of transformation in line with CUT's Transformation Plan, as well as other ad hoc transformational issues. The IF should compile a report that is aligned to CUT's Transformation Plan to monitor the institution's progress with regard to solving transformational issues." This is aligned with the following summit resolution:

"Decisions should be made about the role, purpose and effectiveness of Institutional Forums in facilitating transformation in the context of the analysis of current governance models for their effectiveness in supporting transformation."

Higher education institutions have been grappling with matters pertaining to racism, and CUT is no exception.

Policies

A policy on provision for students with disabilities was approved by Council in 2015.

Employment equity

The Employment Equity Plan is in place and is being implemented. However, some challenges with regard to staff participation were experienced, but these challenges are currently being addressed. The Senior Manager: Employment Equity resigned in 2015. In the interim, someone acts in this position until a suitable candidate is appointed following a recruitment process.



Council, Senate and Institutional Funding Forum

The University Council is the highest decision-making body at Central University of Technology, Free State and consists of thirty members. Sixty percent (60%) of the members are external members, and have the knowledge and experience relevant to the objectives and governance of CUT.

The Senate is the primary forum in CUT for the discussion and resolution of academic matters and for developing for transmission to Council policies and procedures on academic aspects and implications of any business coming before the Council.

The Institutional Forum (IF) was established to address the challenges facing CUT in the changing Higher Education Environment. The IF must ensure that the institution succeeds in stimulating, directing and using the creative and intellectual energies of the broader CUT community. The IF integrates the institutional responsibilities of academic and executive management, which is to provide strategic analysis and appropriate institutional policy and procedural advice to the Council, the Vice-Chancellor and Principal, Senate and the Management Committee of CUT.

Here follows an overview for each decision-making body in 2015:

Council

CUT is committed to the principles of discipline, transparency, independence, accountability, responsibility, fairness and social responsibility, as advocated in the King Report on Corporate Governance. Accordingly, the Council endorses the Code of Conduct for CUT committee members, and the Policy and Procedure for Ethical Governance, Management and Operations for CUT. Compliance with the above principles is monitored closely by management and Council and any perceived or proven deviations are addressed effectively and expediently in terms of the relevant CUT rules, policies and procedures.

Council membership

The CUT Council, in accordance with the provisions of the *Higher Education Act* (Act 101 of 1997), as amended (also referred to as "the Act"), and in terms of the CUT Statute, is duly constituted. 60% of the members are independent, and have the knowledge and experience relevant to the objectives and governance of CUT. External members of Council have skills sets in marketing, finance, human resources management, law and education. The rotation principle was observed and, as a result, some Council members' terms of office are three years, whilst other Council members serve for four years. The Executive Committee (Exco) of Council serves as the nomination committee of Council. Exco assisted with the process of identifying suitable members of Council.

Council exercised its authority and powers conscientiously and with success during the year under review, and fulfilled its responsibilities with regard to governance. During the four meetings and two workshops that were held, Council conducted deliberations and took decisions that were based on the principles of good governance. Members of Council observed the provisions of the CUT Code of Conduct and the ethics policy that were approved by Council in 2014. Councillors acted in the interests of CUT, and they declared explicitly and recused themselves when they had mixed feelings on a matter discussed by Council. All the resolutions of Council were recorded in a register.

Matters of significance considered

Council attended to and addressed a number of significant institutional matters, the most important of which were the following:

- In response to a directive from the DHET, CUT's Management submitted, for approval by Council, the revised Annual Performance Plan 2015 and the revised Institutional Operational Plan (IOP) 2015, and Council approved both documents for submission to the DHET.
- Councillor MM Mohohlo was duly elected as Deputy Chairperson of Council for the period March 2015 to March 2017. The appointment alleviated the workload of the Chairperson.
- Council accepted the resignation of the Chancellor, Dr B Troskie, and approved the appointment of Judge M Molemela as Chancellor of CUT, effective from 1 January 2016.
- Council agreed that the assessment of Council should be conducted by an independent professional body. The Secretary was requested to compile specifications for procuring such services for Council. The external evaluation of Council's performance is good governance practice, and will identify areas where Council's performance could improve further.
- Council approved several policies and instruments of governance, including the following:
- The ICT Governance Framework, which aligns with all the relevant ICT laws and acts (e.g. the *Electronic Communications and Transactions* (ECT) Act; the *Control Objectives for Information and Related Technology* (CoBIT); the *King III Report*, Chapter 5; the *Access to Information Act*; the *Protection of Personal Information* (PoPI) Act; and the relevant CUT IT policies and procedures, securities, etc.). Council also approved the compliance policy, the records management policy, the risk management policy and the budget policy, thus laying the required foundations for improved governance. The top ten risks for 2015, with revised timelines, were also approved.

The revised performance-based policy on the renewal of contracts of Executives and Senior Managers was approved.

- Council approved the amended CUT Statute.
- Council also approved the following financial proposals:
- Council supported the direction of the engagements that took place between Management and the students on the initial minimum payment (deposit); student-fee debt; NSFAS debt; distribution of NSFAS funds; initial payment for international students; the establishment and mandate of a Financial Aid Committee to raise funds for assisting needy students; outsourced services; and registration of a Student Trust Fund. Prior to the #Fees-must-fall campaign, Council approved that an immediate overdraft facility of R25 million be taken at FNB at prime minus 0,75%, and that CUT should apply to the DHET for approval of an overdraft facility of R50 million, on condition that it is aligned with the Materiality Framework.
- As a result of the anticipated financial impact of the #Fees-must-fall campaign, Council approved the application for the approval of an overdraft facility of R150 million to the DHET to meet the University's operational needs that normally arise during January to March each year.

Anumber of academic-related matters that were considered by Council are dealt with in the Senate report in Chapter 3. Of significant note, however, is Council's approval of the following new positions that were allocated to CUT as permanent academic positions under the *New Generation of Academics' Programme*, for the first phase of the *Staffing South Africa's Universities' Framework*: Lecturers in Electrical Engineering; Biomedical Technology; Physics; and Hospitality Management.

Standing committees of Council

Section 29(1) of the Act provides for the establishment of standing committees of Council to perform any of Council's functions. The undermentioned committees were approved by Council to execute the above authority. As of the beginning of 2014, all committees were operating under Constitutions that had been aligned with the King III Report.

The Finance Committee attends to financial as well as planning and resources-related matters. Amongst other things, the Committee recommends CUT's annual operating and capital budgets, and monitors performance in relation to approved operating and capital budgets. It is responsible for assuring the financial health of the institution as a "going concern". It is also responsible for ensuring that the accounting information systems are appropriate, and that the personnel complement is sufficient, not excessive and suitably qualified to maintain the accounting records of the institution.

It also analyses medium- and long-term strategic plans for recommendation to Council for final approval. Changes to the staff establishment; extensions to the salary budget; loans and overdraft agreements; the creation of foundations/trusts and other legal entities; the construction of permanent buildings or other immovable infrastructure developments; and the purchasing and long-term lease of immovable property are amongst the delegated functions of the Finance Committee.

The Finance Committee was chaired by Cllr Dr JR Mellor. Five meetings were held during 2015, one of which was a combined meeting of the Finance Committee and the Human Resources Committee.

Amongst several matters considered by the Finance Committee, the following are highlighted:

- The Finance Committee recommended that Exco of Council approve the awarding of the tender for the provision of cleaning services at CUT (Bloemfontein Campus) to Red Alert TSS (Pty.) Ltd., with effect from 1 June 2015, and to the value of approximately R8.5 million, for a period of three years. Red Alert was appointed. Going forward, CUT, along with all other higher education institutions, is discussing the future of outsourcing beyond 2016.
- The Preliminary Headline Budget for 2016 to 2018 was recommended to Council for approval.
- The Finance Committee was mandated by Council to assess the viability of the CUT Trust, CUT Innovation Services (CUTIS). The Committee recommended to Council for approval the report and the accompanying financials as evidence of the viability of the Trust as a self-funding entity.
- The Finance Committee recommended the DHET mid-year Report to Council for approval, with the request that Management should indicate what the University is doing to align the salary expenditures/staff establishment.
- The IOP 2015, the revised Strategic Plan 2016–2020 and the Annual Performance Plan 2016 were recommended to Council for approval, and were approved by Council.
- The following regulatory documents were considered and recommended to Council for approval: the revised Constitution of the Finance Committee; and the budget policy.

The Audit and Risk Committee of Council assists Council in fulfilling its system and operational oversight responsibilities. It reviews the annual financial reporting process; the system of internal control and management of financial risks; the internal and external audit process; broader strategic risk management; and CUT's process for monitoring compliance with laws and regulations. The Committee, chaired by Cllr MM

Mohohlo in 2015, held four meetings during the year.

The following key decisions were taken during the course of 2015, amongst others:

- The Internal Audit Plan for 1 January 2015 to 31 December 2015 was approved, and it guided the work of the internal auditors.
- The process Management followed to produce the Strategic Risk Assessment Report for 2015 (the comprehensive version, including the content and ratings) was accepted and recommended to Council for approval.
- The Audit and Risk Committee recommended to Council for approval the Annual Financial Statements of 2014.
- The extension of the internal auditors' contract was discussed and recommended to Council for approval.
- The Audit and Risk Committee approved the continued use of the Balanced Scorecard in tracking progress and monitoring risks; and that all Management-related responses to (internal and external) audit reports be crystallised into detailed action plans and timelines.
- The importance of having a Chief Risk Officer was reiterated. Although it may involve costs, Management should provide the Audit and Risk Committee with a resource with the required expertise to compile a comprehensive enterprise risk-management document for CUT. The appointment would improve the risk management and monitoring processes going forward.
- The External Audit Plan for the year ending 31 December 2015 was approved, provided that the new risk that had been identified in terms of a going concern and the sustainability of the University due to the 0% increase in tuition fees for 2016 be added to the External Audit Plan. The external audit fees for audit and audit-related services for the year ending 31 December 2015 were also approved.
- The following regulatory documents were recommended to Council for approval: Information and Communication Technology (ICT) Governance Framework; compliance policy; records management policy; and risk management policy.

The Investment Committee of Council reviews the investment performance of CUT on a bi-annual basis to determine the continued feasibility of achieving the investment objectives stipulated in CUT's Investment Policy. It ensures the maintenance of a financially sound investment structure, as well as sufficient reserves to meet the strategic objectives of the University.

The Committee, chaired by ClIr R van Biljon, met three times during the year, and attended to matters such as the re-investment of funds, cash-flow reports and the progress of the DHET 3-300 projects. The three appointed multi-managers for CUT's investments provided feedback on investments; the withdrawal of long-term funds; the overdraft facilities applied for; consolidated cash flow and withdrawals from long-term investments; the amended Constitution of the Investment Committee; the appointment of a Deputy Chairperson; the report from PricewaterhouseCoopers (PwC) on CUT's investments and cash position; and the self-evaluation instrument.

The Human Resources Committee of Council recommends appropriate strategic directions and priorities in human resources governance to the CUT Council, e.g. performance management, conditions of service and employee relations. The Committee, which has fully delegated power to approve new positions on the permanent staff establishment of the institution, was chaired by ClIr P Munthali in 2015. Four regular, quarterly meetings were held during the year, as well as a workshop on various human resources-related matters. A combined meeting of the Human Resources Committee and the Finance Committee was held during the second term of 2015 to discuss some urgent matters with both a human resources and financial impact for the institution.

The Human Resources Committee attended to matters such as the reorganisation of the Finance Department; absenteeism; the Joint Bargaining Forum (JBF); employment equity; new positions for 2015; attendance of meetings by external Councillors; amendment of the Human Resources Committee's Constitution; the separation of IT from Facilities; the Human Resources Turnaround Strategy; human resources risks; CUT's service-level agreement with Phatshoane Henney Attorneys (PHA); grievance cases; union membership; the revised policy on the renewal of contracts

of Executive and Senior Managers; the approval of positions allocated to CUT for the *New Generation of Academics*' programme; the Executive alignment; functions of the Human Resources Committee and the Finance Committee of Council; the mandate for salary negotiations for 2016; the Executive alignment of the Academic Division and the SEU; the review process for the Vice-Chancellor and Principal's contract coming to an end at the end of 2016, and the appointment of an independent expert by the Human Resources Committee to deal with this review process; the self-assessment instrument for Council and its standing committees; progress made with Senior Managers' contracts coming to an end at the end of 2015; and the salary increase for 2016.

The Remuneration Committee of Council deals with remuneration-related matters specifically mandated by Council; ensures that remuneration arrangements support the strategic objectives of CUT; and enables the recruitment, motivation and retention of Executive Managers, while complying with the requirements of regulatory and governance bodies; satisfying the expectations of stakeholders; and remaining consistent with the expectations of employees.

The Remuneration Committee was chaired by Cllr Dr SM Seane. Five meetings were held during 2015. The Remuneration Committee attended to the independent review of the salary anomalies process.

The Executive Committee (Exco) of Council addresses urgent matters between Council meetings, as well as matters referred to it by Council or its standing committees. It is also the Membership Committee of Council. Exco is delegated to approve tenders in excess of R5 million for various services and products, and matters of interpretation of Council policies and disputes within the University that could be detrimental to the effective functioning of the institution. Chaired by ClIr Dr SM Seane, Exco of Council held seven meetings during 2015, three of which were special meetings.

As the Membership Committee of Council, Exco recommended to Council the following appointments: Judge M Molemela as Deputy Chairperson of the Audit and Risk Committee, Mr HHVM Oelrich as Deputy Chairperson of the Investment Committee, Ms N Nxesi as Deputy Chairperson of the Human Resources Committee, and Mr R Nicholls as Deputy Chairperson of the Finance Committee. Exco further resolved to advise Council to consider how responsibilities are distributed, and that a Chairperson of a standing committee should not serve as a member on another standing committee.

Exco approved the awarding of the tender for the provision of cleaning services at CUT (Bloemfontein Campus) to Red Alert TSS (Pty.) Ltd., with effect from 1 July 2015, to the value of approximately R8,5 million, for a period of three years.

Insofar as the benefits of Council members are concerned, Exco advised that in-kind benefits (such as a tuition rebate or 'staff fee' for family members of Councillors) should not be allowed. This is in concert with the recommendations of the Council on Higher Education (CHE) Governance Task Team Policy Report, May 2002, which argued that such benefits may constitute a potential conflict of interest, and may be considered an unevenly distributed benefit as well. Consequently, Council resolved that Management should withdraw the following benefits: study benefits for Council members and their family members, and special tariffs for rental of CUT venues.

Acting on behalf of Council after Council held discussions and could not finalise the matter, Exco approved the proposed 6% salary increase, exceeding the 5% Council-approved increase, to be apportioned in the following manner:

- Peromnes levels 9 to 16: a total increase of 6.5%, constituted as a 5,5% general increase, and 1% set aside for performance awards; and
- Peromnes levels 4 to 8: a total increase of 5.5%, constituted as a 4.5% general increase, and 1% set aside for performance awards.Exco also approved that all employees at Peromnes levels 1 to 3 will receive a total increase of 5.5%, constituted as follows: a 4.5% general increase, and 1% set aside for performance awards.

In accordance with its statutory obligation to govern the institution, including the management structures necessary to implement governance policy, Council recognises the CUT Management Committee (Mancom), as established by the Vice-Chancellor and Principal.

The Governance Principles to which the CUT Council commits

The CUT Council delegated the governance of risk and IT to the Audit and Risk Committee (ARC) of Council. The ARC is independent and chaired by an external Council member. The responsibility to design and implement the Risk Management Plan is delegated to Management, whilst the oversight and monitoring responsibility remains with the ARC. The implementation of an IT Governance Framework is delegated to Management, but an IT Steering Committee assists with the governance of IT.

Council resolved to establish a compliance function at CUT and appoint a Manager: Institutional Regulatory Code (IRC) and Compliance. The responsibility of developing and implementing an effective Compliance Framework was delegated to Management. Compliance with laws, rules, codes and standards is incorporated into the Code of Conduct of CUT, which is currently monitored by Senior Managers.

Compliance with the CUT Code of Ethics was monitored closely, and any perceived or proven deviations were addressed effectively and expediently in terms of the relevant CUT rules, policies and procedures.

Cooperative Governance

Management's quarterly reports to Council address the management of stakeholder participation and relationships. Decisions were taken by a number of stakeholder structures, including Senate and the IF. The President of the Alumni Association is a member of Council, and staff unions are regularly consulted on decisions that affect staff.

The student leadership was involved in the major governance and management structures of CUT. The institutional Presidents of the SRC at the Bloemfontein and Welkom Campuses are members of both Council and Senate.

The Student Services Council (SSC), which comprises 50% staff and 50% students, attended all matters relating to services affecting students. After identifying some challenges related to the payment of NSFAS allowances to students at the Bloemfontein and Welkom Campuses, the SSC was informed that the SRC has held a meeting with the relevant office, and the matter was resolved to the satisfaction of the students affected. In addition, to ensure that CUT students received quality service, regular meetings, initiated by the SRC, were held with various service providers in 2015.

The Student Academic Affairs Committee (SAAC) attended to all academic-related matters that had a direct impact on students. Students' inputs were taken seriously, and constructive comments from students were incorporated in effecting improvements and critical change. Towards the end of the 2014 academic year, the Committee reflected on some of the matters related to student success and support, and from its discussions it became apparent that there are challenges in how students respond to the available academic support programme,

and also in how they understand the purpose of the CUT graduate attributes. Resulting from these observations, the Committee organised a workshop, which was held on 24 June 2015.

The grievance procedure is used to address employee and student dissatisfaction before it disintegrates into serious conflict.

SENATE

During 2015, Senate, as a statutory body, made an important contribution to the positioning of CUT aligned with Vision 2020 as a leading 21stcentury university of technology (UoT). Contributions by the various committees of Senate, namely the Executive Committee of Senate; the four Faculty Boards; the University Academic Appointments and Promotions Committee; the University Academic Planning and Quality Committee; the University Engagement Committee; the University Research and Innovation Committee; the University Internationalisation Committee; and the University Teaching and Learning Committee, were discussed at the four regular Senate meetings held during the year, and specific recommendations were made to Council.

Senate provided strong academic leadership by means of strategic inputs on matters pertaining to teaching, learning, research, innovation and community engagement, and through scrutiny of academic processes and their implementation. Matters that received attention in Senate meetings included the recommendation of a number of new academic programmes for approval by Council; the recommendation of a number of policies to Council; the discussion of teaching, research and community engagement activities that are related to the academic project; provision for students and staff with disabilities; the revision of research centres and units; the re-alignment of Executive Management; and the repositioning of the Academic Division at CUT.

The following strategies and frameworks were developed and/or reviewed and approved by Senate in 2015: Strategy for E-learning and Educational Technology 2015–2020; Strategy for Improving and Addressing Challenges related to Work-integrated Learning (WIL) and Placement of Students; a policy on students with disabilities; and a Framework for Curriculum Development and Programme Accreditation.

The following matters were approved by Senate and recommended to Council for approval in 2015:

- Welkom Campus Strategic Plan 2016–2020, which mainly consists of envisaged academic programme offerings;
- CUT e-Learning Strategy;
- CUT language policy;
- Constitution of the Faculty Boards;
- Advanced Diploma in Design and Technology;
- Advanced Diploma in Studio Art;
- Revised research centres and units; and
- the establishment of the research Unit of Foundations of Education (UFoE).

INSTITUTINAL FORUM

The IF functions in terms of Section 31 of the *Higher Education Act* and Chapter 7 of the CUT Statute. In 2015, the IF held four ordinary meetings – one per quarter – and one special meeting. The developmental needs of IF members were met through an induction workshop, which was facilitated by an external consultant.

Advisory Involvement

The IF advised Council on matters that form part of the IF's scope, as well as on transformation-related matters that affect the institution, including the following matters:

- The IF advised Council that the continuous perpetuation of racism (particularly within the Faculty of Health and Environmental Sciences) is a matter that requires urgent attention. Newspaper articles on racism at CUT were published, and students sought intervention. In the IF meeting held on 27 February 2015, the IF conceded that Management took bold steps to address racism on campus.
- The IF expressed concerns about the seemingly poor management of security on CUT Campuses. Council approved a budget for the installation of surveillance cameras and access control system on campuses, but there was no implementation of that Council resolution. This was a concern, because thousands of unauthorised people accessed the campuses during the registration process, without the authorities' knowledge, making the University and the students vulnerable. This matter was raised in many forums of the University. The IF advised Council to note its dissatisfaction with the lack of visible action on the part of the Management to deliver on the security measures that were approved in 2013. Council held its fourth quarterly meeting of the year on 28 November 2015, and noted the report on the progress made in terms of addressing various security measures on campus.
- In its report to Council for the Council meeting of June 2015, the IF advised Human Resources (HR), via Council, that statutory structures (such as a Skills Development Forum/Committee) should be implemented at the University as a statutory requirement, so that when skills development gaps occur within the designated groups, a Committee would be in place to address these shortages and other related matters in an orderly, streamlined manner, without making it the responsibility of the individual units/departments/ sections. HR was requested to submit a report to the IF in this regard.
- The IF, at its meeting of 21 August 2015, discussed the contents of the policy on the renewal of contracts for Vice-Chancellor, Executive and Senior Management positions. The policy states that, "For both Executives and Senior Managers, the review of the position will occur at least twelve (12) months in advance for the recruitment process, and six (6) months notification prior to the end of the incumbent's current contract."
- The IF, at its meeting of 21 August 2015, discussed the contents of a revised CUT language policy that was proposed by Management. The IF recommended the revised CUT language policy to Council for approval. Council, at its meeting of 11 September 2015, approved CUT's revised language policy.
- The IF, at its meeting of 05 November 2015, discussed the CUT Strategic Plan 2016–2020 at length. After a discussion on the addenda to the Strategic Plan, which were submitted by Management, the IF advised Council to approve the CUT Strategic Plan 2016–2020. Council, at its meeting of 28 November 2015, noted the IF's recommendation, and approved the CUT Strategic Plan 2016–2020.

The IF, at its meeting of 05 November 2015, considered the report on the nomination for the Office of Chancellor. The IF then advised Council to appoint Judge MB Molemela, given her profile, stature, transformational agenda and the impact that she will have on the University. Judge Molemela met most of the criteria for the nomination of a CUT Chancellor. The fact that she is from the Central region strengthened her nomination, as this resonates with CUT's Vision 2020. Council, at its meeting of 28 November 2015, accepted the IF's recommendation, and appointed Judge MB Molemela as the new Chancellor of CUT, effective from 1 January 2016.





CUT made outstanding progress in enhancing the academic project at the University. A number of academic achievements were recorded during 2015, of which this section will briefly mention a few.

A notable achievement is that, in August 2015, the NRF awarded the NRF Excelleration Award 2015 to CUT as Champion of Research Capacity Development and Transformation at South African Higher Education Institutions, recognising that the University had the most improved research performance over recent years.



Dr Beverley Damonse, Acting CEO of NRF; Prof. Thandwa Mthembu, Vice-Chancellor and Principal of CUT; Prof. Henk de Jager, Deputy Vice-Chancellor: Academic and Research at CUT; and Dr Dorsamy Pillay, Deputy CEO: Research and Innovation Support and Advancement of NRF.

Furthermore, the University embarked on a special project during 2015 to promote entrepreneurship education and regional collaboration, a project emanating from the Vice-Chancellor's sabbatical leave report of November 2014. As part of a broader innovation week, CUT held various symposia on the topics of entrepreneurial education and quad-helix partnerships. Ms Janaa Puukka from Innovation Engage in France and Mr Juha Hautanen from JAMK University of Applied Sciences in Finland visited CUT during these events, and engaged with CUT and external stakeholders on aspects of entrepreneurial education, design and partnerships. Various representatives from government, higher education, business and the broader society attended these symposia, and a number of further initiatives and agreements resulted from the event. Entrepreneurship skills were embedded as one of the graduate attributes in the core curricula of all new academic programmes. The University's Senate and Council approved the Innovation and Entrepreneurship Strategy, which focuses on supporting students to become future entrepreneurs in the region and country. This initiative was further enhanced by the University entering into an agreement with the National Intellectual Property Management Office (NIPMO) to improve capacity in innovation and commercialisation, resulting in a total grant of R5,8 million received over a period of three years. CUT also received a further R1,43 million from the Technology Innovation Agency (TIA) for implementation of the Technology Innovation Agency (TIA) Seed Fund to establish small businesses.

The following graphical representations gives an overview of staff and student profiles in the four faculties, and per campus.

Faculty of Engineering and Information Technology	African		Colo	ured	Ind	ian	W	Total	
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	6	25	0	1	0	3	15	36	86
Percentage	6.98%	29.07%	0.00%	1.16%	0.00%	3.49%	17.44%	41.86%	100.00%

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Faculty of Health and Environmental Sciences	African		Coloured		Ind	ian	Wł	Total	
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	6	10	4	1	0	0	23	10	54
Percentage	11.11%	18.52%	7.41%	1.85%	0.00%	0.00%	42.59%	18.52%	100.00%
Faculty of Humanities	African		Coloured		Ind	ian	W	Total	
	Female	Male	Female	Male	Female	Male	Female	Male	TOTAL

Headcount	14	31	1	2	1	1	16	8	74
Percentage	18.92%	41.89%	1.35%	2.70%	1.35%	1.35%	21.62%	10.81%	100.00%

Faculty of Management Sciences	African		Coloured		Indian		White		Total
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	11	18	2	0	1	1	29	18	80
Percentage	13.75%	22.50%	2.50%	0.00%	1.25%	1.25%	36.25%	22.50%	100.00%

Staff





Faculty of Engineering and Information Technology per campus	Afri	can	Coloured		Indian		White		Total headcount	
	Female	Male	Female	Male	Female	Male	Female	Male		
Bloemfontein	22.12%	62.95%	0.45%	2.82%	0.07%	0.45%	0.52%	10.61%	4 213	
Welkom	34.92%	63.10%	0.40%	1.59%	0.00%	0.00%	0.00%	0.40%	252	

Faculty of Health and Environmental Sciences per campus	Afri	can	Colo	ured	red Indian		White		Total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	46.65%	32.40%	2.50%	1.22%	0.24%	0.18%	10.05%	6.76%	1 642

Faculty of Humanities per campus	African		Colo	Coloured		Indian		ite	Total	
	Female	Male	Female	Male	Female	Male	Female	Male	Male headcount	
Bloemfontein	51.61%	39.31%	2.50%	1.78%	0.08%	0.08%	2.33%	2.29%	2 358	
Welkom	60.76%	36.91%	0.70%	0.47%		0.08%	0.62%	0.47%	1 287	

Faculty of Management Sciences per campus	Afri	can	Colo	Coloured		Indian		iite	Total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	54.54%	38.91%	1.92%	1.33%	0.21%	0.12%	1.45%	1.53%	3 390
Welkom	62.46%	62.46%	0.53%	0.42%	0.00%	0.00%	0.32%	0.00%	951
Kimberley	51.28%	51.28%	12.82%	2.56%	1.28%	0.00%	5.13%	0.00%	78

Faculty of Engineering and Information Technology

Prof. Alred Ngowi

Dean: Faculty of Engineering and Information Technology

Achievements

- Two learning programmes, the Bachelor of Science: Hydrology and Water Resources Management and the Advanced Diploma: Logistics and Transportation Management, were successfully implemented in the Faculty.
- Two new programmes, namely the Diploma in Information Technology (IT) (replacing the National Diploma in IT) and the Diploma in Computer Networking, have been accredited by the Council on Higher Education (CHE) for implementation in 2017. All the academic programmes in the Engineering disciplines and Built Environment are fully accredited by the relevant professional bodies.
- To enhance students' experience, the Faculty dedicated 2015 to "Digital Scholarship and the Implementation of Digital Strategy". All its study guides, and most of its teaching materials (with the exception of some design textbooks), were made available to students electronically via Blackboard. Staff members showed an increased interest in the use of e-books and various sources of reading material in electronic format. The Faculty finalised the establishment of the Digital Signage Networks (DSN), whereby students can access the digital notice board anywhere, anytime.
- 44 staff members are studying towards a higher qualification: 26 staff members are studying towards their master's degrees, while 18 staff members are studying towards their doctoral degrees.
- 18.63 publication outputs appeared in accredited journals, as opposed to 36 articles published in 2014, and 23 articles published in 2013.
- 93 papers were delivered at national and international conferences, as opposed to the 74 papers presented in 2014, and 63 papers presented in 2013. 44 papers were delivered nationally in 2015, against 45 papers in 2014, and 34 papers in 2013. 49 papers were delivered in 2015, against 29 papers in 2014, and 29 papers in 2013. Chapters were published in three books.
- 12 staff members served on national and international editorial boards, as opposed to 17 staff members serving on editorial boards in 2014, and 4 staff members serving on editorial boards in 2013.
- Six staff members acted as examiners for Master's and doctoral students from other tertiary institutions.
- Two staff members of the Department of Mechanical and Mechatronics Engineering served on the Executive Committee of the Rapid

Product Development Association of South Africa (RAPDASA), and are members of the regional TIA. The Faculty established one research centre, four research units and six research groups that actively pursued research in their respective specialisations during 2015.

The South African Research Chairs Initiative (SARChI) Chair in Medical Product Development through Additive Manufacturing was launched by the Minister of Science and Technology in August 2015. The value of this project is R1.67 million annually for the next five years, with the possibility of extension for a further ten years. On 14 August 2015, the Minister of Science and Technology launched the Department of Science and Technology/National Research Foundation (DST/NRF) South African Research Chairs Initiative (SARChI) Research Chair in Medical Product Development through Additive Manufacturing, to be hosted by CUT under the auspices of SARChI, and awarded to CUT by the DST and the NRF. Prof. Igor Yadroitsau was appointed as the Chair-holder at Tier-2 level. The event brought together all the key stakeholders, including the NRF, DST, partners of the Centre for Rapid Prototyping and Manufacturing (CRPM) and the community in general. The NRF will support this initiative with R1,67 million per year for the next ten years.



Mr Letsoalo Letsoalo, Junior Project Engineer at the CRPM showed Minister Pandor some of the 3D printed items in the state-of-the-art facilities located in the Engineering Technology Building at CUT, Bloemfontein campus.

- Profs. AB Ngowi and AJ Swart respectively obtained Categories C2 and Category Y2-Rated Researchers by the National Research Foundation (NRF), effective from 1 January 2015 to 31 December 2020.
- The Department of IT designed a community-based, CLOUD-based school management system for under-resourced schools in the Free State.
- Four staff members received their doctorates in 2015.
- 840 students graduated in 2015 (compared to 792 graduates in 2014, and 678 graduates in 2013). This is an increase of 6.1% upon the graduations of 2014. The number of graduates in Built Environment increased with 48.4% (92 graduates in 2015, compared to 62 graduates in 2014); the graduation rate in Civil Engineering decreased by 13.7% (183 graduates in 2015, compared to 208 graduates in 2014); Electrical, Electronic and Computer Engineering's graduation rate increased by 5.7% (from 244 graduates in 2014 to 258 graduates in 2015); the graduation rate in IT increased with 1.1% (183 graduates, compared to 181 graduates in 2014); and the graduation rate in Mechanical and Mechatronics Engineering increased by 27.8% (124 graduates in 2015, compared to 97 graduates in 2014).

Awards/Donations

A total of R3 250 098 was made available to researchers in the Faculty by the National Research Foundation (NRF), the Department of Higher Education and Training (DHET), the Technology Innovation Agency (TIA) and CUT.

Significant Highlights

- Staff members in the Faculty were appointed as moderators and external examiners at a number of universities, including Walter Sisulu University; Nelson Mandela Metropolitan University (NMMU); Makerere University; Stellenbosch University and Tshwane University of Technology.
- The Faculty signed memorandums of understanding (MoUs) with WAMOT in the United Kingdom (UK), Jimma University (JU) in Ethiopia and the Federal University of Technology, Akure in Nigeria.
- Staff members in the different departments of the Faculty continued to serve as reviewers for a number of technical journals, including the Journal of Construction Project Management and Innovation; the Journal of Built Environment Project and Asset Management; the Journal of Engineering, Project and Production Management; the South African Journal of Business Management; the International Journal of Construction; the Journal of Tourism Management, the Journal of Transportation Engineering (ASCE); the International Journal of Pavement Engineering; the African Journal of Agricultural Research; the Journal of Water Management; the Journal of Risk and Reliability (UK); The American Journal of Experimental Agriculture (AJEA); and the European Journal of Engineering Education (EJEE).
- The Faculty maintained established connections and fostered new collaborations with a number of partners, including the International Labour Organisation (ILO); the National Department of Public Works; NMMU; the University of Johannesburg (UJ); London South Bank University; University of Minnesota; JU in Ethiopia; Johannesburg Centre for Software Engineering (JCSE); Free State Provincial Government; the University of Nebraska in Lincoln, United States of America (USA); the University of Southern Queensland in Australia; Linköping University in Sweden; Hochschule Ulm in Germany; the Kigali Institute of Science and Technology (KIST) in Rwanda; the University of Dodoma in Tanzania; and the National University of Burundi.
- The Faculty engaged with a number of industrial partners and agencies during 2015, including SA Truck Bodies; Transnet; the Free State Department of Economic Development, Tourism and Environmental Affairs; the TIA; the Free State Development Corporation; the Council for Scientific and Industrial Research (CSIR); the Industrial Development Corporation (IDC); the National Aerospace Centre in Johannesburg; and the Advanced Manufacturing Technology Strategy (AMTS).
- The Department of IT is a member of the Euro Africa Co-operation Forum on Information and Communication Technology (ICT) Research; and Science, Technology and Innovation for the Development of Africa.

Faculty of Health and Environmental Sciences

Prof. Sam Mashele

Dean: Faculty of Health and Environmental Sciences

Achievements

One of South Africa's largest challenges remains food security. To this end, one of the major achievements includes, among others, the discovery of a new drug that has major potential to help fight aquatic animal infections caused by aquatic parasites. The results of this study were published in the Nature Publication Group's journal, *Scientific Reports*, a prestigious multidisciplinary scientific international journal with a very high impact factor. Researchers from the Unit for Drug Discovery in the Faculty attended an international symposium on Methods for Studying Drug Metabolism and Transport, and African Traditional Medicines (METHODS-2015) at the Saint George Hotel and Conference Centre, Pretoria, South Africa from 23 to 25 November 2015. This research unit acclaimed international recognition in this field.



From left to right: Sitting: Dr Khajamohiddin Syed, Prof. Samson Sitheni Mashele, Dr Malebo Ntsoaki and Mr Mokoena Jack. Standing: Mr Mohammad Parvez, Mr Ntsane Trevor Mthakathi, Mr Richie Monyaki, Ms Ipeleng Kopano Rosinah Kgosiemang, Ms Norventia Jafta, Mr Mopeli Marshal Sello, Mr Lehlohonolo Benedict Qhanya, and Mr Seiso Caiphus Raselemane: M

- Close to the top of the highlights list must be the burgeoning research effort in the Faculty. One of the events that took place during the year under review was the significant increase of high-impact publications in accredited journals.
- Dr Swanepoel and Me Nhlapo were awarded a Leaders in Academy and Development (LEAD) 360 fellowship and an S2A3 medal, respectively.
- Mr Manyatsa was awarded the NRF Knowledge Interchange and Collaboration Programme Award.
- Dr Malebo received NRF funding to present a paper at the 4th National Conference on Science and Technology in Luanda, Angola.
- Ms Nkhebenyane received an Erasmus Mundus Scholarship, which enables her to spend time at Ghent University in Belgium for a period of six months (from September 2015 to March 2016).
- Dr Syed delivered an invited talk on "The role of CYP450s in drug targeting/development against tuberculosis and fungal pathogens".
- 20 papers and 11 posters were presented by staff members at national and international conferences.
- 9.66 research outputs were published in accredited journals by staff members of the Faculty.

Awards/Donations

A total of R1 386 000 (in NRF-TIA funding and NRF funding) was awarded to researchers in the Faculty for the academic year 2015.

Significant Highlights

Regional

- Collaboration with the University of the Free State (UFS) and the Agricultural Research Council (ARC).
- The Department of Clinical Technology has academic partnerships with both private and state hospitals countrywide.
- The Department of Biomedical Technology has an umbrella agreement with the National Health Laboratory Service (NHLS), which is currently being revised.
- The Faculty is associated with Oos Vrystaat Kaap Bedryf Beperk (OVK).
- The CUT Department of Agriculture has an Memorandum of Understanding (MoU) with the Free State Department of Agriculture and Rural Development.
- There is an MoU between CUT's Department of Agriculture and Mokhachane Community Property Association (CPA), a farming project located in Wesselsbron.
- Collaboration with the Suid-Afrikaanse Pekanneutprodusente Assosiasie (SAPPA) on a pecan nut research project.
- Research collaboration with the Grootfontein Development Institute.

National

10.

- Collaboration with the Institute for Commercial Forestry Research (ICFR) and Sunshine Seedling Services.
- Collaboration with peers at North-West University (NWU) on maize insects.

- Collaboration on pecan nut research with NWU in Potchefstroom.
- Collaboration with the University of Stellenbosch (US) and Mr Hunlun from SA Studbook.
- Collaborations with the Agricultural Research Council, Irene; the University of KwaZulu-Natal (UKZN), Pietermaritzburg; US; University of Fort Hare, Alice; NWU, Mafikeng and Potchefstroom; University of Venda, Thohoyandou; and Glen College of Agriculture.

International

- Collaboration with the University of New England Australia; University of Manitoba, Canada; and Cornell University, USA.
- Collaboration with the Joint Genome Institute (JGI) of the Department of Energy, USA.
- Collaboration with high-profile researchers from various countries, including the USA, Canada, Europe (Slovenia, Poland and Germany), Japan, India, South Korea and China.
- Collaborative project with the University of Eduardo Mondlane in Mozambique.
- Prof. Friedrich-Nel hosted Prof. Mackinnon from the USA, and they are co-authoring a book.
- Collaboration with African Forestry in Tanzania.
- Collaboration with the University of Kimpa Vita in Angola, an interaction funded by the NRF.
- Links and collaborations with international colleagues and institutions, notably the University of Nigeria, Nsukka, Nigeria; Federal University of Agriculture, Umudike, Nigeria; University of Maiduguri, Nigeria; Cornel University, Ithaca, USA; University of New England, Armidale, Australia; University of Florida, Gainesville, USA; University of Manitoba, Canada; University of Guelph, Canada; Wageningen University, the Netherlands; and Kyoto University, Sakyo-ku, Japan.

Faculty of Humanities



Achievements

- 38 papers were presented at national and international conferences, compared to 32 papers in 2014.
- 22 publication outputs appeared in accredited journals, compared to 26 in 2014. The outcomes of various article submissions are still awaited.
- Ten staff members served as reviewers of peer-reviewed journals or members of additional boards.
- Six staff members acted as external examiners for Master's and doctoral students from other tertiary institutions.
- The Faculty produced three master's degree students and three doctoral degree students in 2015.
- The Faculty also successfully implemented the new Bachelor of Education in Senior Phase and Further Education and Training (FET) Teaching, with the first-year intake of 696 students in January 2015.
- Dr PA Phindane assisted the Department of Basic Education with the screening of Grade 10 to 12 literature textbooks for the 2016 catalogue.
- Two staff members attended the Higher Education Leadership and Management Fellowship programme in Gauteng.
- The Bi Haiying, Foreign Language Teaching and Research Publishing, Beijing, China approached the research office at CUT, to request permission to use a citation from Mr JH Kleynhans' article entitled "The use of colour as a tool for propaganda" that was published in the *Interim* during 2007.
- Mr M Leeto is involved in the debating society that will be participating in the South African national competition during the June recess period.
- Dr MC Delport is reviewing a book, Advanced Communication Skills for Organisational Success, by Erasmus-Kritzinger, Swart and Mona for Van Schaik Publishers.
- Border Hotel launched a competition where third-year Graphic Design students had to design a logo for the newly renovated Border Hotel in the Northern Cape. The hotel chose two of the students' logo designs. The Department is proud of the two students who won the competition, Babelo Majodina and Zarco Smith.

	Wiki Loves Monuments South Africa
	The photo competition for monuments and heritage sites
Wiki Loves Monuments South Africa 20	15
The 2015 Winners Are:	*
 First Prize: Huguenot jpg (b) by Leann van Heerden Second Prize: CT City Hall with Pains (b) Magemu Third Prize: CT City Hall Auditorium from Balcony (b) by Magemu Since we had no submissions in the category Best media/video do was decided to award this prize in the form of a third prize place inst 	
 Best Photographic Submission in the Western Cape: Huguenot jpg @ b Best use on of WLM submissions on Wikipedia: Moltenodam @ (Af Wiki Best use of WLM content to document hentages sites in the Western C 	ipedia) by LiebeB 💩
The award ceremony will take place at 6pm on Saturday the 28th Novembe	rr 2015 at TwentyFifty 🛃 2nd Floor, 8 Spin Street, Cape Town. Congratulations to our winners!
	h Africa by 40 participants. We would like to thank each of the participants that submitted fonuments competition in South Africa for the foreseeable future we are planning to have another
 You can view all of the photographs submitted during Wiki Loves Monur You can view all of the photographs submitted globally during 2015 on 	
International competition	
This year a grand total of 242,344 photographs were submitted by 7,496 pa from last year's 369,589 photographs that were submitted globally in 2013	articipants from all over the world totalling 1,207.9 gigabytes of submitted pictures. This is a decrease submitted by 11,943.

Ms L van Heerden, a Lecturer's Assistant in the Department of Design and Studio Art, won the Wiki Loves Monuments South Africa 2015 photography competition. Consult www.wikilovesmonuments.co.za. "Wiki Loves Monuments (WLM) is a public photo competition around cultural heritage monuments, organised by Wikimedia chapters and groups. In 2010, it was organised in the Netherlands, and was followed by a Europe-wide 2011 edition. Wiki Loves Monuments 2012 went global, and was organised in several countries around the world, including Canada, Chile, India, Panama, Ghana, the Philippines, Russia, South Africa and the United States. The aim of the contest is to ask the general public – readers and users of Wikipedia, photographers, hobbyists, etc. – to take pictures of cultural heritage monuments and upload them to Wikimedia Commons for use on Wikipedia."

Awards/Donations

The Faculty received Funza Lushaka bursaries to the value of R28 538 219 from the Department of Basic Education for Teacher Education students.

Significant Highlights

- The Faculty was involved partnered with Standard Bank and the Free State Department of Education to offer the annual Grade 12 Winter School classes.
- Staff members in the Faculty were appointed as tutors for a project that involved the Manufacturing, Engineering and Related Services

Sector Education and Training Authority (MerSETA) and the Faculty of Engineering and IT.

- Various staff members in the Faculty served as reviewers for a number of journals.
- Staff members from the Faculty undertook a short, intensive study visit to Thailand from 6 to 10 April 2015 to engage in discussions regarding the exploration of research collaboration, networking, staff and student exchange, and teacher professional development. The study focused on three universities, namely Khon Kaen University, Mahasarakhan University and Rajabat Mahasarakhan University. MoUs were signed between the Faculty and the three universities.
- Various staff members underwent industry exposure at private-sector businesses, municipalities and other government-related institutions.
- The Advisory Boards of all learning programmes were rejuvenated, and at least one meeting per learning programme took place in 2015.

Faculty of Management Sciences

Prof. Albert Strydom

Dean: Faculty of Management Sciences

Achievements

- The Faculty successfully introduced a new learning programme, namely the Higher Certificate: Community Development Work in 2015.
- 23 papers were presented at national and international conferences, compared to 19 papers in 2014.
- 13.49 outputs were published in accredited journals, compared to 22 outputs in 2014. The outcomes of various article submissions are awaited.
- Five master's degree students and four doctoral students graduated in 2015, compared to nine master's degree graduates and one doctoral graduate in 2014.
- Staff members in the Faculty served as members and other on various boards and structures, including the Bar Council (Advocates); Attorney's Bar; assessor for the South Africa Netherlands Research Programme on Alternatives in Development; Finance Committee of the Universitas Hospital Board of Management; member of the Joint Advisory Committee of UFS; Chairperson of the Risk Management Committee of the Department of Co-operative Governance and Traditional Affairs and the Department of Human Settlements; member of the Institute of Business Advisers of Southern Africa (IBA); registered assessor for the Local Government SETA (LGSETA); regional member of the Association of South African Travel Agents (ASATA); South African Institute for Drug-free Sport's Tribunal; Audit Committee of the War Museum; and the Free State Residential Care Centre.
- Three staff members were registered as full members of the South African Institute of Chartered Accountants (SAICA); one as full member of the South African Institute of Professional Accountants (SAIPA); two students as student members of the Chartered Institute of Management Accountants (CIMA); and one staff member as full member of the Association of Accounting Technicians (AAT).
- Tourism Management students obtained a first place at the CUT Entrepreneurship Day.
- Prof. DJ Dzansi was selected for the Higher Education South Africa (HESA) Leadership and Management Programme.
- Dr R Haarhoff received accreditation as a trainer for International Fares for Beginners as well as Fares within Africa.
- Dr R Haarhoff was nominated as a finalist for the ASATA Diners Club Award: Exceptional Commitment.

- Prof. AJ Strydom won the Titans Building the Nations Award (South Africa; Southern African Development Community (SADC), South and Africa) in the category Education and Training: Academic.
- Mr JL Hattingh was nominated by South African Tourism as a judge for the Lilizela Tourism Awards 2015.
- The learning programme in Human Resources Management received provisional accreditation from the South African Board of People Practitioners (SABPP).



Mr Xolani Mawande, COO: SA Board for People Practices handing over the accreditation certificate to Head of the Department Business Management, Prof. Tshedi Naong.

The learning programme in Hospitality Management was identified as one of six programmes from other universities of technology as a flagship programme for a national collaborative project on graduate attributes through strategic teaching.

Awards/Donations

- A total of R617 180 was awarded by the NRF and CUT to researchers in the Faculty. This figure represents a slight decrease (3.7%) compared to 2014. Five NRF applications are still pending.
- The Culture, Arts, Tourism, Hospitality and Sport Education and Training Authority (CATHSSETA) awarded R1 206 000 in the form of sponsorships to the Department of Tourism and Event Management and the Hotel School.
- Tsogo Sun and the Shoprite Group respectively awarded bursaries to the value of R92 000 and R200 000 to students in Hospitality Management.

Significant Highlights

- The Department of Tourism and Event Management was chosen as the South African partner to participate in the Horn of Africa Regional Environmental Centre and Network (HoAREC), together with the Vrije University of Amsterdam; the Katholieke Universiteit of Leuven; Jimma University; Addis Abbaba University; Hawassa University; Mizan-Tepi University; and Arba Minch University.
- The Faculty was involved in a number of partnerships with government, business and institutions, including the Executive Development Programme (EDP) of the National School of Government; the Accounting Technicians (AAT) programme; training in restaurant service to various schools; ESKOM; the Maccauvlei Learning Academy; and the Thabiso Skills Training Centre. The Faculty also hosted the Business Ethics Project Awards function in conjunction with PricewaterhouseCoopers (PwC).
- Staff members in the Faculty were appointed as moderators and external examiners at a number of universities, including Tshwane University of Technology, UFS, UKZN, University of Venda, University of Zululand, North-West University and Cape Peninsula University of Technology (CPUT).
- Various staff members in the Faculty served as reviewers for a number of journals, including the Journal for Contemporary Hospitality Management; South African Journal for Research in Sport, Physical Education and Recreation; Administratio Publica; and the Journal of New Generation Sciences.
- In 2015, CUT offered programmes in the Faculty of Management Sciences to students in Kimberley. In 2013, CUT made a strategic decision to phase out learning programmes offered at the Kimberley learning site as from 2014. This process will be concluded by the end of 2016. A rental agreement for the use of facilities was finalised with the newly established Sol Plaatje University as from the beginning of 2015.
- The Faculty was involved in a number of international partnerships, including with Kajaani University of Applied Sciences in Finland, Aalen University of Applied Sciences in Germany, and the Hogeschule Harz in Germany.
- An MoU was signed with Ho Polytechnic in Ghana, as well as with the Greater Zimbabwe University.
- The Faculty of Management Sciences is part of a national consortium of universities who are in the process of finalising an MoU with Chinese universities.
- The Faculty presented the second Annual Herman Mashaba Lecture on Entrepreneurship. It was presented by Prof. Kurt Leube, a renowned economist of Stanford University in the USA.
- The Department of Business Management launched a R3-million project in collaboration with the Free State Department of Education to train HR officials employed at Technical Vocational Education and Training (TVET) colleges in the province.
- Various staff members underwent industry exposure at private sector businesses, municipalities and other government-related institutions.
- The Advisory Boards of all learning programmes were rejuvenated, and at least one meeting per learning programme took place in 2015.
- Guest lectures were presented by representatives of PwC, the Association for the Advancement of Black Accountants of Southern Africa (ABASA), UFS, the Chartered Institute of Management Accountants (CIMA), Z2A Village, and Astra Travel.
- Senate approved the appointment of Prof. Ulrich Holzbaur of Aalen University of Applied Sciences in Germany as the first-ever Honorary Professor in the Faculty of Management Sciences.

Academic Development and Support

Prof. 'Mabokang Monnapula-Mapesela

Dean: Academic Development and Support

Academic Development and Support (ADS) focuses on preparing staff – especially novice, young and designated academics – to embrace new trends and innovations in teaching and learning (e.g. streamlining learner-centred approaches to teaching and learning). This enables the effective implementation of mixed modes of instructional delivery and learning by embedding technologies in teaching and learning. It also allows for an improved response to socio-economic needs, international/global, national and institutional change and transformation imperatives, as well as the effective design and implementation of innovative programmes that are not only aligned to the Higher Education Qualifications Framework (HEQF), but also pursue CUT's Vision 2020. This is achieved through four centres, namely Teaching and Learning, Work-Integrated Learning, Curriculum Development, and E-Learning and Educational Technology.

Significant developments and achievements in Teaching and Learning and in Academic Development and Support:

Supplemental Instruction (SI)

The University implemented SI to enhance student success. All students who obtained less than 50% in a test were referred for SI. The Section for Academic Development and Support (ADS) played a pivotal role in implementing, managing and offering this programme. During 2015, a large number of students benefitted from SI, underpinning the demand for, and popularity of, the programme. There was also an increase in SI subjects offered and in students' attendance, from 23 360 in 2014 to of 30 760 in 2015, as illustrated in Table below.

Month	1 st year	2 nd year	3 rd year	Total per month	Accumulated total in 2015	Accumulated total in 2014
February	6 787	898	0	7 685		
March	6 326	677	84	7 087	14 772	11 061
April	3 509	314	103	3 926	18 698	13 425
May	3 329	346	30	3 705	22 403	15 934
June	176	4	20	200	22 603	0
July	493	39	5	537	23 140	16 381
August	3 286	280	81	3 647	26 787	19 402
September	2 890	292	14	3 196	29 983	22 346
October	663	104	10	741	30 760	23 360

The teaching of 91 first-year, 24 second-year and 7 third-year subjects were supported by SI.

Careers Office

ADS (SI, Academic Language Proficiency (ALP), the Dean's Office, Work-integrated Learning (WIL) and the Careers Office participated in the orientation programmes offered by the faculties in February 2015. An orientation booklet was designed by ADS, which was distributed amongst all first-year students on both campuses.

Career Fairs were held on both campuses during the month of May. 10 companies and 423 students participated in the Career Fair at the Welkom Campus, while 25 companies and 1 169 students participated in the Career Fair at the Bloemfontein Campus.

Work-integrated Learning (WIL) and Skills Development

A total of R31 500 000 in remuneration was negotiated for 1 373 students who were placed for WIL in 2015. Furthermore, WIL was incorporated into:

- all the new Engineering programmes;
- the BEd FET programme;
- all new three- to four-year undergraduate programmes that were developed; and
- eight re-curriculated programmes.

Finally, the students registered for WIL in 2015, were, per faculty, as follow, 3 363 registrations: Graphic representation

- Engineering and Information Technology: 751 students
- Management Sciences: 468 students
- Health and Environmental Sciences: 449 students
- Humanities: 1 695 students

Unsuccessfully placed: 0,006% (20/3383 students)

CUT participated in a joint South African Technology Network (SATN) project on the Higher Education Qualifications Sub-framework (HEQSF) alignment of WIL. The research project focused on determining the extent to which the HEQSF alignment process had an influence on WIL.

To support and responsibly guide access to selected courses and academic progress in disciplines and study areas, Senate approved the introduction of Academic Advising.

Academic support interventions at CUT

- Various teaching and learning support interventions to support students and academic staff were implemented and monitored throughout the year, incorporating the establishment of new programmes. These interventions included SI, the Student Peer Mentorship Programme, a project on Scholarship of Teaching and Learning, Graduate Attributes Project, Academic Advising, the Writing Centre for undergraduate students, Extended Curriculum Programmes (ECPs), the Mentorship Programme for New Academics, a yearlong training and development programme, etc.
- All new undergraduate programmes incorporated the core curriculum modules.
- There was a consistent increase in the number of subjects/modules using e-learning/blended learning, from 19.63% in 2009 to 76.46% in 2013, 87% in 2014, and 90% in 2015.
- Various projects for the support of teaching and learning, improvement of student success, and the development of academic staff capabilities for the period were financially supported by the DHET by means of the Teaching Development Grant (TDG).

General developments

- The project on the incorporation of HIV-AIDS education into the curriculum, which is funded by the DHET, was launched on 29 January 2015.
- Four academics were supported by CUT's "grow-our-own-timber" and Stars of Academia and Research (SoAR) project.
- The CUT graduate attributes project was formally launched at the Bloemfontein Campus on 22 April 2015 and at the Welkom Campus on 23 April 2015.
- The formal Mentorship Programme for Newly Appointed Academic Staff Members took place. Academic staff members were equipped with skills in, amongst others, teaching and learning, assessment, curriculum development, the use of technology for teaching and learning, the incorporation of graduate attributes and WIL into the curriculum, etc.
- A mentorship/support programme for 30 to 35 black female academics was established in 2015. Several workshops were organised, focusing on various aspects of their development as academics, namely teaching and learning, innovative assessment practices, scholarship of teaching and learning, and academic work in general.
- Four staff members of ADS enrolled for the Postgraduate Diploma in Higher Education for academic staff development practitioners at Rhodes University. Their studies are funded by the DHET TDG.
- Two staff members completed their DTech (Business Administration) degrees and graduated.
- The NRF C-rating for Prof. IM Ntshoe was successfully renewed for the period January 2016 to January 2022.

- A Unit for Scholarship of Teaching and Learning (SoTL) was established and approved by Senate in February 2015. In total, 72 staff members comprising 13 mentors and 59 mentees participated in the SoTL project. 45 SoTL members presented 59 papers at national and international conferences. The outcome of these conferences was 34 conference proceedings and peer-reviewed articles; three papers published in accredited journals; and six papers submitted to academic journals. Two international and two national keynote speakers presented keynote addresses at the first international SoTL Conference, organised and hosted by ADS in October 2015.
- Six papers and one poster were presented by ADS staff at international conferences, while four papers were presented at national conferences.
- Two publication outputs were published by ADS staff.
- Two ADS staff members reviewed four articles for accredited journals.
- One ADS staff member co-promoted two doctoral students and externally examined two dissertations.

Regional, national and international co-operation

- The Careers Office presented a Career Fair on both the Welkom and Bloemfontein Campuses, which was attended by 35 companies and 1 592 students/graduates.
- A SETA Fair, attended by 12 SETAs and 400 students, was also held.
- Agreements to the value of more than R10 million, with 535 students benefitting, were entered into with six SETAs, namely the Health and Welfare SETA (HWSETA); Agricultural SETA (AgriSETA); LGSETA; BankSETA; Insurance SETA (INSETA); and Chemical Industries Education and Training Authority (CHIETA). 15 bursaries were also sourced from CHIETA to the value of R675 000 and 25 internships from INSETA to the value of R1 050 000.
- A meeting with seven SETAs namely CHIETA, the Services SETA; the Education, Training and Development Practices SETA (ETDPSETA), MerSETA, LGSETA, INSETA and the Wholesale and Retail SETA (W&RSETA) – was held on 21 May 2015, with the aim of creating process synergy between CUT and the various SETAs.
- Quarterly SATN meetings were attended by the Dean: ADS and Directors involved in the various committees, including the Programmes and Qualifications Committee, the WIL Committee, and the University Teaching and Learning Committee.

Community Engagement

The need to obtain a specific profile and the foci area of the community engagement (CE) projects resulted in CUT revising its CE template. As a result, the CE Model has been transformed to a Comprehensive Developmental Model in 2014.

Community Engagement Plan: During 2015, the Community Engagement Plan was approved by the Community Engagement Committee. The Community Engagement Strategy will be developed in 2016.

Community Engagement Database: An electronic database for community engagement projects was developed. This database facilitates the capturing of project statistics.

Significant developments and achievements in CE:

29 community engagement projects were undertaken in 2015. A breakdown of projects according to faculties and the Schools Advancement Academy (SAA) is presented below:

- Faculty of Engineering and Information Technology: Four projects (Career Information, Computer Literacy, CISCO and Cloud SAMS);
- Faculty of Health and Environmental Sciences: Eight projects (Wheels of Hope, service learning in Health Sciences, Water Quality (2), Waste Management, Luckhoff Farming Mentorship, Leratong Farm and LISSO);
- Faculty of Humanities: Two projects (Mahau Nursery School and Bloemfontein Crèche);
- Faculty of Management Sciences: Nine projects (Accounting Technicians, CENTLEC Project Management, ESCOM Project Management, Maccauvlei Human Resources Management, ENACTUS Student Organisation, Executive Development Programme, module in Restaurant Service, Thabiso Skills Development, and FS TVET colleges).
- Schools Advancement Academy: Four projects (Saturday School, Winter School, Spring School, Educator Mentorship Development Programme).

Research Development and Innovation



Dean: Research and Innovation



The CUT Research and Development Plan 2014–2020 was implemented during the first term of 2014. The University's Vision 2020 articulates four leading principles, namely sustainable development, socio-economic development, input leading to outcomes and outcomes leading to impact. Consequently, the strategies of CUT's Research and Development Plan 2014–2020 were aligned with the following principles:

- the development of a sustained, relevant and responsive research culture;
- the qualitative and quantitative improvement of research outputs;
- socio-economic development through knowledge creation, transfer and innovation; and
- the development of strategic research and innovation partners and programmes.

The four leading principles became the main performance indicators for Research and Development. This approach corresponds with international best practice in research management.

The focus of all research and development activities at CUT is to result in *outputs*, *outcomes* and *impact*. The importance of the above-mentioned approach is that, whilst an enabling environment is created in support of research, the policy directives and management of research are aimed at maximising the *outputs*, *outcomes* and *impact*.

Resource allocation for research

Total funding of R32 455 205 was available for research at CUT in 2015. Funding was received from the following sources:

- In March 2015, CUT approved an allocation of R4 800 000 to support the strategic and operational budgets of the University's Research and Innovation Unit.
- Through the DHET Research and Development (R & D) Grant, the University was awarded R5 190 000 million for 2014 to 2015. The Grant's major focus is on capacity development (especially) through growing the number of staff with a master's and doctoral degree. The grant allocation will be used to support projects, as outlined in the grant proposal. These include programmes ranging from mentorship/supervisor training to research capacity development, postgraduate study support, postdoctoral research fellowship and academic exchange.

- The NRF remains the largest funder of research activities. For the reporting year, R14 765 205 was made available for research.
- The Council for Scientific and Industrial Research (CSIR) awarded the University R351 000 through its laser rental/access programme.
- The PA and A Malan Trust availed R150 000 in support of the Research and Development Plan.

Table below indicates the sources and amounts of funding available for research at CUT during 2015:

Agency	Funding objective	Amount
CUT	Operational research funds	R4 800 000
DHET R & D Grant	Support research capacity building	R12 389 000
NRF	Support research projects and student training	R14 765 205
CSIR	Laser rental/access programme	R351 000
PA & A Malan Trust	Studies in Art and project on Research Education	R150 000
TOTAL		R32 455 205

For the period January 2015–December 2015, the following funding was received from the NRF:

Programme	Amount
Incentive Funding for Rated Researchers (IFRR)	R320 000,00
International	R99 876,25
Knowledge, Interchange and Collaboration (KIC)	R370 241,00
National Equipment Award	R3 100 000,00
Scholarships and Fellowships (S&F) – Part-time doctoral studies	R140 000,00
S&F – Extended support for scholarships and fellowships	R35 000,00
S&F – Innovation Doctoral Scholarships	R620 000,00
S&F – Scholarships and Fellowships Programme	R7 240 000,00
South African Research Chairs – Open	R1 670 000,00
Sabbatical grants to complete doctoral degrees	R200 000,00
South African Nuclear Human Asset and Research Programme (SANHARP)	R70 000,00
South African Square Kilometre Array Project	R226 000,00
Thuthuka	R674 088,00
Total	R14 765 205,25

In total, the Research and Development Unit had a budget of R32 455 205 available for research activities. This was carefully allocated and managed.

For 2015, the following grants were awarded to master's and doctoral degree students and postdoctoral fellows. This can be compared to the period 2014:

Year	Master's degree students	Doctoral degree students	Postdoctoral fellows
2014	R957 880	R628 494	R880 000
2015	R1 972 340	R1 147 030	R1 000 000
TOTAL	R2 930 220	R1 775 524	R1 880 000

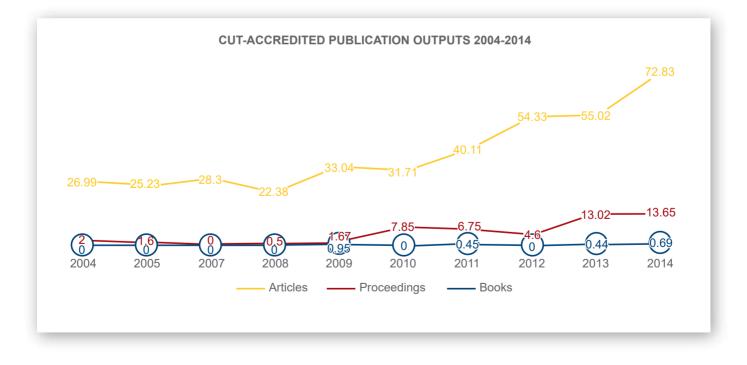
A total of R4 119 370 was available to support postgraduate students and postdoctoral fellows.

Research outputs

The University recorded a substantial growth in its publication outputs since 2010. This is reflected in a 27% progress, from 68.48 units in 2013

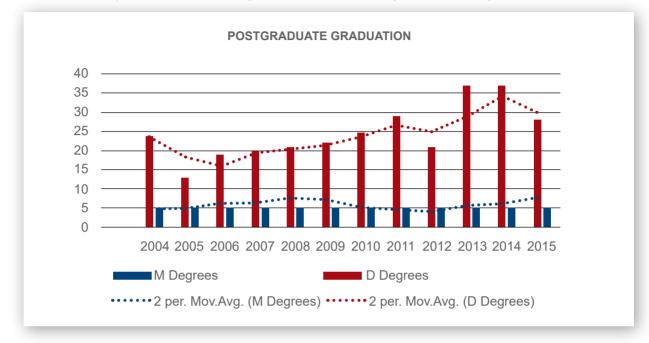
to 87.17 units in 2014. The representation below postulates the CUT-accredited publication outputs during the last decade, in order to illustrate

that the University is succeeding in the establishment of a sustainable research output platform.



Postgraduate studies

The following master's and doctoral degrees can be reported for the period 2001 (full year) to 2015 (full year). From this figure, it is clear that the University has illustrated the academic ability to deliver on master's programmes. The outputs with regard to doctoral programmes should be increased.



Research and Development Initiatives

CUT's Senate approved a policy on research centres, units and groups on 25 August 2014. Council approved the policy on 12 September 2014. The policy was informed by the University Research and Development Plan 2014–2020, which was approved by Senate and Council in 2013. The objectives of this plan are directed at building a critical mass in research, and optimising opportunities to grow research outputs. The plan identified the approved research clusters and programmes as a meaningful vehicle to meet the intended results by 2020. Strategy 2 of the plan suggests meaningful structural support to achieve the desired outputs. One such mechanism is research performed by a critical mass, organised in centres/ units/groups.

The University is conscious of the fact that this exercise is the most important process that has been undertaken by the institution in the grouping and identification of research niche areas. In order to ensure success of the process and sustainability of the approved entities, the process allows a progressive development of entities – from group to unit to centre. The development will involve a peer-review mechanism, which will assist in the achievement of outputs, as wells as the refocusing of research within faculties. A total of 2 centres, 12 units and 6 groups were approved.

Joint research call: CUT and UFS Research Programme

The University and UFS undertook a joint research call with equal funding by both institutions. The collaboration, aimed at strengthening research within the institutions in the Free State province, was a first between the two universities. The research collaboration focused on the following objectives: 1) building research critical mass; 2) improving research outputs – publications and postgraduate supervision; and 3) joint funding proposals.

In total, 15 joint research applications across the research fields Natural Sciences, Engineering, Urban Developmental Studies and Humanities were received by 30 March 2015. The applications were assessed, and four research projects were funded.

NRF/CUT Flagship Programme

On 18 November 2014, the NRF engaged CUT on the establishment of the Flagship Initiative. The Flagship Initiative is a strategic intervention of the Department of Science and Technology (DST) and the NRF, aimed at strengthening research and innovation capacity and productivity of institutions in their areas of strength or comparative advantage. In addition to the existing competencies and established record of accomplishment in research and innovation outputs and outcomes, a comparative advantage can be derived from a regional or geographic location, and/or institutional positioning. The NRF intends to promote institutional identity through the Flagship Initiative; hence, consideration must be given to ensuring that the NRF Flagship of an institution cannot be easily replicated elsewhere. The criteria of a Flagship Programme clearly state that the University must demonstrate availability and the development of critical mass and capabilities, and the capacity to successfully train postgraduate students in terms of a Postgraduate Qualification Mix.

Subsequent to the internal selection process and approval by all relevant institutional committees, a *Concept Note on Leading Additive Manufacturing for Industrial Development in the Free State and across South Africa* was developed and submitted on the 30 April 2015, for consideration by the NRF as the University's Flagship Initiative. A consultative meeting regarding the above concept note for the Flagship Programme was held with the NRF on 17 June 2015. The NRF provided very positive feedback, congratulating and commending the institution on its alignment with national strategies, focus on curriculum, and student involvement. The NRF agreed that CUT could submit the detailed proposal, which was done on Friday, 2 October 2015. The detailed proposal is the final stage of the process. The document will be subjected to a peer review before the final outcome is received.

Research Ethics and Integrity Committee

As part of the Senate-approved University Research and Innovation Committee (URIC), a working group to activate a Research Ethics and Integrity Committee (REIC) convened for the first time in 2014. This Committee addresses ethical matters related to research. The following themes form part of the scope of this Committee's ongoing activities: clinical research; animal research; sustainable development; safety and security; research with people, and vulnerability; postgraduate studies; publications; stewardship; law; and corporate responsibility.

Training

A series of workshops were presented by the Research and Development Unit during 2015, including themes devoted to the research process, postgraduate supervision, how to be successful in your postgraduate studies and promoting a research culture through international partnerships. A strategic research breakaway that focused on postgraduate studies at CUT was also organised. Collectively, more than 380 attendees were involved, with participation from the NRF, the German Academic Exchange Service (Deutscher Akademischer Austauschdienst) (DAAD), US, and international collaborators (Finland and Australia).

Technology and Innovation

The Technology and Innovation Office had a successful 2015 with various projects in support of the academic project and with a direct impact on the socioeconomic development of the region, nationally and internationally. Herewith significant developments and achievements in Technology and Innovation. Six businesses are currently incubated in the CUT Incubator, while the seven sets of offices are used by six participants in the South African Breweries (SAB) KickStart Ignite Programme, which are underway with the technical support of the FabLab. In addition, two incubator tenants have graduated from the incubator during 2015 to establish businesses in the city. Through the incubator, employment was created for 19 individuals by means of ownership of the incubated enterprises, appointments and a part-time appointment.

Technology Innovation Agency (TIA) Seed Fund

TIA's Seed Fund initiative was also rolled out by the Technology and Innovation Office, and an amount of R3 076 000 has already been paid to CUT to manage the execution of eight projects in this regard. All eight of these projects are scheduled for completion before the end of 2016.

Technology Transfer Office (TTO)

Two design applications for intellectual property (IP) protection were formally submitted to the Companies and IP Commission for registration. The TTO, with the assistance of patent attorneys, is currently preparing another application for registration. A funding application was submitted to the National Intellectual Property Management Office (NIPMO) for the appointment of a Business Development Officer. The application was approved, and an amount of R1 146 096, as well as a moderate amount of money to cover training and administrative expenses, is to be availed over a period of three years. A comprehensive booklet, Becoming IP Wise[™], was developed by the TTO, and was used as a guiding document during a short course in IP offered to staff, students and incubator tenants.

FabLab and South African Breweries (SAB)' KickStart Ignite Programme

The CUT FabLab was officially opened on 23 October 2006. Recognition is given to South Africans' "spirit of ingenuity", and an attempt is made to facilitate this by shortening the gap between concept and technology, while giving users valuable experience in the world of personal fabrication. CUT has been financing this entity since the DST decided to terminate the national FabLab programme in April 2014.

The FabLab hosts a large a number of users in a seasonal manner, depending on CUT's Academic Calendar and due dates for the completion of academic projects. The following table provides an indication of the typical distribution of FabLab users:

School learners	15%
CUT students	70%
UFS students	10%
Private individuals/entrepreneurs	5%

FabLab users in 2015

CUT's FabLab has entered into a partnership with South African Breweries in order to give selected individuals a chance to be involved in all aspects of developing a product and managing a company. The decision of selecting participants was based on the viability and originality of the individual's proposed concept, product or service. After this, the participants were given a budget and access to the FabLab to help develop their ideas. These are also accompanied by weekly meetings with suitably knowledgeable individuals in order to provide assistance on issues of establishing a company, product marketing and technical issues regarding manufacturing.

Centre for Rapid Prototyping and Manufacturing (CRPM)

2015 was a satisfactory year for the CRPM. However, there was a downturn in the South African economy – especially in the manufacturing sector – that affected growth in the Centre's turnover. The exchange rate weakened by approximately 25% during 2015, which had a direct impact on the price of imported materials. Yet, significant progress was made with the development of expertise in the design, manufacturing and implanting of medical devices.

The value of the 499 projects completed at the CRPM during 2015 was R4 357 924, which was a decrease of 4.7% compared to that of 2014 (a project value of R4 562 838). Furthermore, a total of R572 860 was spent on 52 research projects, compared to the R350 530 that was spent on research projects during 2014.

The national Collaborative Programme in Additive Manufacturing (CPAM) of the DST, which commenced in January 2015, is an extensive, systematic research programme that provides the opportunity for in-depth research into AM-process characteristics and the resultant material properties of parts, including microstructure, physical, chemical and mechanical properties. The initial characterisation work is planned for the first two and a half years of the programme. Subsequently, based on the insight and data acquired in this national programme, CUT and its collaborators will be able to embark on the full qualification of selected medical implants, which is planned for the next three years of the programme. The total value of the contract allocated to CUT for the period March 2015 to March 2017 is R6 272 052 (incl. VAT). The Department of Mechanical and Mechatronics Engineering and the collaboratively CRPM execute this project.

Product Development Technology Station (PDTS)

13 WIL students were employed at the PDTS. They all receive continuous training to improve their skills and employability in preparation for their careers in industry.

The PDTS plays an important role in assisting local businesses and independent entrepreneurs in the design and development of new mechanical products. The following is a summary of the projects that were executed by the PDTS since the beginning of its current financial year (April 2015).

Client to commercialise For use by client		Incomplete	Total	
34	28	8	70	

The PDTS is also the primary source of new IP that is developed and registered on behalf of CUT.

Regional Innovation Forum, Free State (RIFFS)

CUT implemented, and acts as custodian of RIFFS. In addition to DST and other external funding, CUT contributed to the financial and in-kind resources required to sustain the forum since 2009.

In 2015, RIFFS either initiated or participated in the following projects: 1) the establishment of a Free State Science Park; 2) the establishment of a CUT Design School; 3) the running of assistive design and social innovation competitions in collaboration with ILO and the Department of Economic, Small Business Development, Tourism and Environmental Affairs (DESTEA); 4) the implementation and launch of a regional Solution Exchange Platform; 5) the running a various innovation and entrepreneurship events in the region to advance awareness of creativity, innovation and entrepreneurship; and 6) participation in the establishment of regional task teams on quad-helix partnerships, renewable energy and problem-based learning (PBL).

Library and Information Services

The following significant developments and achievements were achieved:

- Another milestone was achieved at the beginning of 2015, when LIS effected subscribed to LibGuides. LibGuides can be described as content management tools used by libraries to *"curate knowledge and share information by creating topics, subjects, courses"* relevant to a specific library's client needs. LibGuides can also be used by a library to market library resources and services (see http://cut-za.libguides.com/).
- LIS subscribed to a new feature, Handle, which enhances access to the increasing number of information sources uploaded onto the CUT Institutional Repository (IR). The feature was acquired, indexed and registered. CUT's intellectual output that is uploaded onto the IR would henceforth be accessible to anyone using search engines such as Registry of Open Access, Directory of Open Access Repositories (OpenDoar), and Google Scholar. A CUT policy on IR was drafted, and was submitted for consideration by the relevant CUT Management structures in November 2015.
- Furthermore, CUT's IR (which normally consists of electronic CUT theses and dissertations) was included in the NRF and the Committee of Higher Education Librarians of South Africa (CHELSA)'s national Electronic Theses and Dissertations (ETD) Portal, containing South African theses and dissertations (see http://www.netd.ac.za/).
- LIS launched e-books (digital or electronic books) on 9 and 10 April 2015, two years after the commencement of the Institutional Depository Project. The launch took the form of open demonstrations, and was a clear demonstration of how the University integrates technology into the culture of digital teaching and learning. It is common knowledge that e-books have become increasingly popular, as they save time, space and money. The introduction of e-books was a strategic decision to move with the times, and to be at par with more progressive academic libraries worldwide.
- World Book and Copyright Day is commemorated throughout the world on 23 April to commemorate creators of literary and scholarly works. This occasion also presents an opportunity to reaffirm commitment to the promotion and protection of IP. In celebration of this day, LIS organised a seminar dedicated to recognise and honour rated researchers at CUT for their contributions to improve scholarly output.
- LIS celebrated South African Librarian's Day on 10 July 2015. On this day, librarians across the country reflect on their societal role in nation building. It is a day that brings to light the intrinsic value of librarianship in building an informed and knowledgeable society.
- The University Librarian and Welkom Campus Librarian represented CUT at the International Federation of Library Associations' (IFLA) congress that was held at the Cape Town International Convention Centre from 15 to 21 August 2015.
- LIS launched the International Open Access Week celebrations at CUT on 20 October 2015. The Open Access Week is celebrated worldwide in October each year. Open access stands for the promotion of free and instant online access to academic outputs, and the right to use such information. The theme for this global event was "Open for collaboration".
- The launch also provided an opportunity for CUT's LIS to showcase the evolution of CUT's IR, and to illustrate to the CUT community the merits of depositing academic outputs in the CUT IR, in order to encourage the submission of more citations, and to ensure that CUT's academic outputs are accessed by a broader, global audience.
- A proposal to upgrade the 24-hour study facilities further was approved by the Facilities Committee in 2015.
- The renovation of the study halls is intended to create more conducive and attractive spaces for study, especially for undergraduate students who find the study halls the most convenient spaces for study and group discussions. Renovation commenced in the fourth quarter of 2015 and is expected to be completed in the first quarter of 2016.

Information services

LIS provided information services to staff and students throughout the year. Information services were offered in different formats, ranging from providing basic skills in information searching (mostly for undergraduate students), to conducting in-depth and complex information searches on behalf of students and staff (mostly postgraduate students and academic staff).

There was a marginal increase in the number of training activities from 2014 to 2015; this appears to be the pattern in the last couple of years. There was a significant increase in the number of postgraduate information queries from 2014 to 2015. However, there was a decrease in undergraduate quick-reference queries from 2014 to 2015.

Acquisitions

In 2015, R2 831 005,95 was spent on acquiring library materials, compared to R1 709 052,68 in 2014.

The improvement in expenditure on library material acquisitions had no bearing on the quantities or number of titles added to the library collection, which might be disconcerting. However, the escalating prices of library materials in general, the weakening value of the local currency against the US Dollar, and the new 14% VAT charged on imported study materials, might be the reasons for the miscorrelation.

The bulk of library material acquisitions were in STEM, with the Faculty of Engineering and IT spending the most money on acquisitions. The Welkom Campus continued to build their library collection. The Faculty of Health and Environmental Sciences and the Faculty of Humanities could have acquired more library material.

Cataloguing

The Cataloguing Unit is involved in a wide range of activities besides cataloguing *per se*, including the cleaning of bibliographic data to promote easy access to library materials; ensuring that the library catalogue is truly representative of the library collection; and striving for a close correlation between the bibliographic records of the library and the CUT library major referral partners such as Sabinet and the Online Computer Library Centre (OCLC).

Systems

Subscription to databases is important in supporting teaching and learning, and building the research foundation.

LIS maintained subscription to a variety of databases. Full-text databases included world-renowned information databases such as EbscoHost, ProQuest, ScienceDirect, the Web of Science, and SA e-Publications. These databases contain high-percentage coverage of peer-reviewed titles. LIS also subscribed to a number of individual e-journals, and provided access to hard copies of each title. It is also significant to note that CUT clients had access to open-access publications.

A growth in databases available to the CUT clients is evident in the packages and titles added to the library collection. This is particularly true of the titles added to the collection in 2015, as opposed to the titles that were added to the collection in 2014.

In comparing database usage between 2015 and 2014, it is apparent that in 2015, the number of searches conducted outweighs the number of searches conducted in 2014. However, it appears as though there was a considerable decrease in the number of full-text downloads in 2015 in comparison to that of 2014.

In 2013, LIS decided to acquire electronic books as a strategy to broaden the base of library resources. Subscription to e-books commenced in 2014, and since then, LIS provides comparative statistics on the use of e-books on an annual basis. In 2015, EbscoHost and Science Direct e-book collections were added to the collection. However, the number of downloads decreased by almost half in 2015.

The number of searches increased, from just below 400 000 in 2014 to nearly 1,5 million in 2015. Searches from peoples in the Far East, Europe and USA were identified. However, the majority of users came from Africa. Such is the power of attraction of free access to online publications. This is perhaps a testimony that academic outputs downloaded onto the IR have the potential to reach wider and larger audiences than materials confined to commercially based journal outlets.



This section serves to highlight CUT's achievements against the performance targets set by the DHET. These performance agreements resulted from a process of constant communication and consultation between CUT and the DHET, which took place during May 2013 and June 2013. On 15 January 2013, CUT provided its submission, which submission was revised on 15 August 2013. The revised submission responded to the DHET Enrolment Planning Cycle 2014/15 to 2019/20. Priorities were presented during the June 2013 consultations, and were subsequently approved by the DHET, as per a letter dated 23/09/2014. These targets for 2015 are reflected as the agreement in this report.

Size and shape

In 2014, CUT enrolled 14 352 students, which is 1 203 more students (i.e. 9.15% in excess) than the number agreed upon with the DHET, while the 2015 student headcount of 14 192 exceeded the DHET target of 13 619 by 573 (i.e. 5.21% in excess). Insofar as first-time entering students at undergraduate level are concerned, the headcount in 2015 indicated a shortfall of 485 students (13.01% below the required target), while, in 2014, there was also a shortfall of 105 students (2.95% below the required target). In 2015, 80.43% of first-time entering undergraduate students at CUT were from the Free State province, reflecting trends from previous years. The shortfall in the headcount of first-time entering students in 2015 can be attributed to the fact that a smaller number of matriculants from the Free State passed Mathematics, thus adversely affecting admission rates to CUT.

In 2015, the targets that were set in the DHET Enrolment Planning Cycle were exceeded by 11.29% in the African population group, while the enrolments fell short of the target in the Coloured (17.25%), Indian (14.81%) and White population groups (38.27%). In comparison to 2014, the targets were exceeded by 14.48% in the African population group, while the deficit in the Coloured, Indian and White population groups was 4.48%, 13.21% and 26.28%, respectively.

The Science, Technology, Engineering and Mathematics (STEM) proportion of the enrolment (48.25%) in 2015 exceeded the DHET target by 2.99%. The headcount target of 6 164 students was outnumbered by 683 students. In 2014, the STEM proportion of the enrolment fell short of the target by 6.6%, despite exceeding the headcount target of 5 495 students by 157 students. The Business/Management proportion of the enrolment fell short of the target by 0.95% in 2015, although the headcount target of 3 358 students was surpassed by 7 students. The headcount proportion in the Other Humanities proportion reflected a 3.38% shortfall (398 students) from the target, while the enrolment target was exceeded by 1.33% (279 students) in Education.

The following set of statistics offer a comprehensive analysis of the performance, size and shape of CUT, providing a platform, based on reliable data, to manage and guide the institution in terms of its Strategic Plan and priorities.

Student headcount data for 2015

Academic year										
		2014		2015						
BUS/MAN	3 520	3 344	24.50%	3 365	3 358	23.71%				
EDUCATION	2 332	2 049	16.20%	2 431	2 152	17.13%				
OTHER HUMANITIES	2 197	1 899	15.30%	1 547	1 945	10.90%				
STEM	6 300	5 857	43.90%	6 847	6 164	48.25%				
UNCLASSIFIED	3		0.02%	2		0.01%				
TOTAL	14 352	13 149	100.00%	14 192	13 619	100.00%				

The student headcount proportion in Business and Management Sciences indicates a decline, from 24.5% in 2014 to 23.75% in 2015. Other Humanities registered a reduction, from 15.3% in 2014 to 10.9% in 2015.

At the same time, STEM and Education CESM categories have increased, from 43.9% in 2014 to 48.3% in 2015 and from 16.2% in 2014 to 17.1% in 2015, respectively.

Headcount enrolments by population group per major field of study

	HEADCOUNT											
	AFRICA	N (%)		COLOU	RED (%)		INDIAN	INDIAN (%)		WHITE (%)		
CESM CATEGORY	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
BUS/MAN	26.73	25.86	25.06	26.34	22.65	19.33	25.38	16.49	15.58	13.24	9.79	8.80
EDUCATION	16.64	17.4	18.13	12.4	13.83	15,21	6.82	6.52	7.07	3.78	3.98	5.72
OTHER HUMANITIES	15.46	15.52	10.88	23.36	18.28	14.19	9.09	6.52	5.62	14.35	11.8	9.90
STEM	41.17	41.2	45.92	37.9	45.24	51.27	58.71	70.47	71.74	68.63	74.4	75.59
UNSPECIFIED		0.02										
GRAND TOTAL	11 588	12 750	12 704	502	490	451	44	46	46	1 169	1 066	991

In the Business and Management field of study, the student headcount proportions of all population groups have constantly been decreasing

for the past three years (2013–2015) resulting from result of a strategy to make room for more STEM enrolments. In Education, the headcount proportions of all population groups increased. In the Other Humanities fields of study, the headcount proportion of all population groups also registered a decrease in the past three years. In STEM, all population groups recorded an increase in headcount proportion during this period.

		2014		2014 total	2015		2015 total
CESM category		Female	Male	2014 10181	Female	Male	2015 10181
BUS/MAN	Success rate	74.39%	69.14%	72.26%	76.10%	69.86%	73.61%
BUS/MAN	FTE	1 288	878	2 166	1 253	829	2 082
EDUCATION	Success rate	78.08%	71.38%	75.17%	87.23%	81.44%	84.84%
EDUCATION	FTE	1 268	971	2 239	1 077	756	1 833
OTHER	Success rate	80.66%	74.61%	78.28%	85.16%	79.31%	82.88%
OTHER HUMANITIES	FTE	1 172	759	1 931	912	585	1 496
STEM	Success rate	79.47%	71.81%	74.62%	80.27%	69.95%	73.82%
STEIM	FTE	1 646	2 841	4 487	1 726	2 870	4 597
Overall succ	Overall success rate		71.69%	74.92%	81.63%	72.74%	77.15%
TOTAL FTEs		5 374	5 449	10 823	4 967	5 040	10 008

Full-time Equivalents (FTE) enrolments across major fields of study by gender

The table above provides the annual changes in student performance in success rates across the major fields of study by gender. The following observations are noteworthy:

CUT's overall success rate increased from 74.92% in 2014 to 77.15% in 2015.

- Females performed better than their male counterparts did during both the academic years 2014 and 2015, as their overall success rate fluctuated between 76.18% (2014) and 81.63% (2015). The male overall success rate fluctuated between 71.69% and 72.74% during the 2014 and 2015 academic years, respectively.
- In STEM, the success rate portrays a decrease, from 74.62% in 2014 to 73.82% in 2015. The success rates in the remainder of the CESM categories improved. The success rate in Other Humanities fields of study increased from 78.28% in 2014 to 82.88% in 2015. The success rate in Education increased from 75.17% in 2014 to 84.84% in 2015, while Business and Management indicates an improvement from 72.26% in 2014 to 73.61% in 2015.

Graduation outputs and retention

		Cohort retention									
			Retained	after		Cum	ulative				
Cohort year	Cohort headcount	1 year	2 years	3 years	4 years	Graduates to date	Drop-outs to date				
2010	2 370	1 779 (75.06%)	1 013 (42.74%)	514 (21.7%)	221 (9.32%)	1 173 (49.49%)	1 133 (47.81%)				
2011	1 973	1 541 (78.10%)	862 (43.69%)	404 (20.5%)	162 (8.21%)	872 (44.20%)	982 (49.77%)				
2012	1 971	1 479 (75.04%)	810 (41.10%)	402 (27.7%)	265	651 (33.03%)	1 055 (53.53%)				
2013	2 208	1 519 (68.80)	788 (35.69%)	596 (26.13%)		485 (21.97%)	1 127 (51.04%)				
2014	2 212	1 549 (70.03%)	1 328 (60.04%)			2 (0.09%)	882 (39.87%)				
2015	2 034	1 497 (74.37%)				0 (0.00%)	537 (26.40%)				

			Cohort graduation							
Cohort year	Cohort headcount	Minimum time	Min + 1 year	Min + 2 years	Min + 3 years	Min +3> years	Total (%) graduates			
2010	2 370	23.92%	15.40%	7.68%	2.49%	0.00%	49.49%			
2011	1 973	23.52%	13.65%	6.64%	-	-	44.20%			
2012	1 971	19.33%	-	-	-	-	33.03%			
2013	2 208	21.92%	0.05%	-	-	-	21.97%			

The table above presents the first-time entering national diploma student cohort, retention and graduate rates over time. The 2010 cohort is used for interpretation purposes of this table. (The full cohort cycle is five years, due to regulation stipulating that the maximum study duration for a national diploma is five years). From the 2 370 student cohort enrolled in 2010, 1 779 students (i.e. 75.1%) were retained in year 1 (i.e. 2011); 1 013 students (i.e. 42.7%) were retained in year 2 (i.e. 2012), etc. From this 2010 cohort, 49.49% of the students have graduated to date, whilst 47.81% is reported as dropouts (including stop-outs) to date. From that very same 2010 cohort, 23.9% graduated in the minimum duration of the qualifications for which they enrolled; 15.1% graduated in minimum time plus one year; 6.6% graduated in minimum time plus two years; etc. This should provide a clear illustration, and assist in the interpretation of table above. It should be noted that the graduation cohort only includes the national diploma qualification types, and excludes other qualification types.

Graduation rates

Undergraduate and postgraduate student enrolment and graduation rates by major field of study.

CESM category	Qualification type	Calendar year							
		2014		Graduation 20		15	Graduation rate		
		Headcount	Graduates	rate	Headcount	Graduates	Graduation rate		
BUS/MAN	Occasional	1	0	0.00%	4	0	0.00%		
	Postgraduate	86	8	9.30%	83	15	18.07%		
	Undergraduate	3 433	800	23.31%	3 278	863	26.32%		
BUS/MAN total		3 520	808	22.96%	3 365	878	26.09%		
EDUCATION	Postgraduate	716	397	55.44%	588	334	56.77%		
	Undergraduate	1 616	299	18.50%	1 843	275	14.94%		
EDUCATION total		2 332	696	29.84%	2 431	609	25.06%		
OTHER HUMANITIES	Occasional				10	0			
	Postgraduate	25	2	8.14%	30	7	23.14%		
	Undergraduate	2 172	363	16.72%	1 507	373	24.74%		
OTHER HUMANITIES total		2 197	365	16.63%	1 547	380	24.55%		
SET	Occasional				21	0	0.00%		
	Postgraduate	167	20	11.95%	216	18	8.32%		
	Undergraduate	6 133	1 336	21.78%	6 610	1 423	21.52%		
SET total		6 300	1 356	21.52%	6 847	1 441	21.04%		
Unclassified	Postgraduate	0	2		0	8			
	Undergraduate	3	22		2	61			
Unclassified total		3	24		2	69			
Grand total		14 352	3 249	22.64%	14 192	3 377	23.80%		

The table presents the undergraduate and postgraduate student enrolment differentiation, as well as the changes in graduation rates by major field of study, in the academic years 2014 and 2015. The noticeable changes to be reported are discussed below:

In the Business and Management field of study, the graduation rate for postgraduate students increased, from 9.30% in 2014 to 18.07% in 2015, and by 3.02% for undergraduate studies (from 23.31% in 2014 to 26.32% in 2015).

- The largest increase in graduation rate was in the Other Humanities field of study: there was a 7.92% improvement in 2015, compared to that of 2014.
- In the Education field of study, a bulk of new qualifications is being introduced. This is the main reason for the 4.78% decline in the overall graduation rate in 2015 compared to that of 2014.
- The headcount for undergraduate students in Education increased by 227 in 2015, compared to that of 2014, while there was a decline of 128 students in the postgraduate student category during the same period.
- In Other Humanities fields, there was an increase of 5 students in the student headcount for postgraduate studies in 2015 compared to that of 2014, while there was a decline of 665 students for undergraduate studies during the same period.
- The STEM headcount for postgraduate studies increased by 49, while the number of undergraduate students in STEM increased by 477 in 2015.

For the University as a whole, the overall graduation rate increased by 1.04% in 2015 compared to that 2014 (from 22.64% in 2014 to 23.68% in 2015). Finally, according to DHET regulations, 2015's graduates are graduates who should complete their studies before June 2016, which may slightly affect the totals.

2015 success/pass rates by major field of study and population group

CESM category	African		Coloured		Indian		White	
	2014	2015	2014	2015	2014	2015	2014	2015
BUS/MAN	71.71%	72.99%	78.16%	79.02%	69.00%	80.92%	80.47%	86.84%
EDUCATION	74.89%	85.09%	76.70%	83.99%	82.92%	86.52%	93.98%	68.55%
OTHER HUMANITIES	78.15%	83.08%	77.59%	78.38%	14.46%	38.08%	83.65%	83.67%
STEM	74.27%	73.20%	73.75%	76.04%	59.50%	65.21%	78.03%	78.45%
GRAND TOTAL	74.59%	76.97%	75.82%	78.23%	58.49%	73.91%	79.61%	79.28%

Institutional Advancement

The Bloemfontein Campus houses a full array of modern buildings with well-equipped laboratories and lecturing venues. The campus has allencompassing Library and Information Services, while the Lapeng Student Centre is a vibrant venue hosting a wide variety of student activities and services. Excellent sporting facilities on campus cater for the needs of sport enthusiasts, who can choose from a host of formally organised sport codes, ranging from athletics, soccer, rugby and cricket, to basketball, volleyball and netball.

CUT's Welkom campus is situated 160km northeast of Bloemfontein, and is in the hub of the Free State goldfields with several gold mines, a thriving industry in South Africa. Welkom campus facilities for students include: a library and information services, student cafeteria, computer laboratory, equipped laboratories for programmes offered, a wellness centre supports staff and students with psychological matters, counseling, supplement studies, social services, and a wide range of sport facilities is available.

Both campuses offer a variety of student organisations, cultural activities as well as health services to advance access to quality education and to support students during their university years.

Campus Development

The infrastructure development programmes within both University campuses (the Bloemfontein Campus and the Welkom Campus) are informed by the Campus Master Plan (CMP), which was approved by Council in 2014. Upon approval of the plan, it was agreed that, at the beginning, the CMP would be reviewed at least twice a year to accommodate the changing academic requirements upon which the infrastructure needs are determined. In December 2015, the University commenced with a review of the CMP. Among other considerations, the current review takes into account the land adjacent to the Bloemfontein Campus, which was purchased by the University in 2014, and other adjacent land parcels that belong to private developers.

The current infrastructure programme (DHET 3-300) consists of the construction of five new buildings, with a total cost of approximately R350 million. Three buildings, namely the Engineering Building, Student Accommodation Building, and the Teacher Education Building, are located at the Bloemfontein Campus. The other two buildings, namely the Student Accommodation Building and the Information and Communication Technology (ICT) and African Languages Building are located at the Welkom Campus. The construction of student accommodation facilities will increase the current number of beds at the Bloemfontein Campus by 96 beds – from 795 beds to 891, some of which will be set aside for postgraduate students. For the first time in its history, the Welkom Campus will, upon completion of the Student Accommodation Project have 216 beds available for students.

For a number of reasons (including adverse weather conditions, unfavourable ground conditions, the design process, construction delays and changing end-user requirements), completion of the buildings on the original date, 30 November 2015, was delayed. The Student Accommodation Building in Bloemfontein reached practical completion in December 2015, while the ICT and African Languages Building will reach practical completion in February 2016. The three remaining buildings are expected to reach completion by the end of April 2016.

In 2015, the University concluded a Request for Proposal (RFP) process, which commenced in 2011, with a preferred bidder to build at least

300-bed student residences on each of the campuses. After considering land availability constraints in Bloemfontein, the preferred bidder was requested to focus on the development of a student accommodation facility in Welkom. To date, the bidder has submitted a proposal to develop a 990-bed student accommodation facility, which is largely compliant with the latest standards approved by the Department of Higher Education and Training (DHET). It is expected that, should the DHET's approval for the project be obtained by the end of May 2016, the first phase of the development would be completed by December 2017.

Facilities and Major Capital Projects

The following major maintenance and capital projects, at a cost of R6 619 431, were approved, initiated and completed as part of the 2015 cycle: installing new roofing over the Artec Hall; replacement of the roof at Loggies Residence; renovations to laboratories at Health and Environmental Sciences; and renovations to the BKS' building and workshops, which are part of the property purchased in 2014.

A number of venues and areas were upgraded, including the bathrooms at the Gymnos Residence; the Procurement Office; the CUT House, including the security system; and the 24-hour study areas in the Library and Information Services (LIS) Buildings.

A number of projects were initiated in 2015, for completion in 2016, namely: replacing the geysers at Mannheim Ladies' Residence with a heat pump system to reduce energy costs; renovating the offices of Academic Development and Support (ADS) in the LIS Building; renovating and extending the offices at Research and Innovation; and establishing a product development laboratory in the Dirk Coetzee Building for the Faculty of Health and Environmental Sciences.

In addition, a metering system that provides CUT with information on energy usage was installed and monitored. The system provides a baseline from which informed decisions regarding energy savings can be made, and assists the University with managing its energy usage.

Sustainable Development Project

Sustainable development is now regarded as a priority throughout the world. The rapid depletion of natural resources and the mass destruction of the earth, which are currently taking place, can no longer continue if future generations are to thrive. It is no surprise, then, that in 2010, CUT decided to integrate sustainable development into all its activities. Following that decision, a Sustainability Office was established in 2011. The Office had to focus on the following four areas: university operations, community engagement, curriculum development, and research. In 2014, the Sustainability Office's focus shifted to operations, with a financial focus added to monitor savings. Nevertheless, the academe continued to implement other areas of sustainability.

Operational focus

In 2015, the Sustainability Office installed electricity meters so that CUT's energy baseline could be determined. Furthermore, 20 trees were planted on campus to offset the number of vehicles that park on the premises. The Sustainability Office commenced an investigation into the quality of CUT's underground water in order to reduce the campus' reliance on municipal supply. Also linked to this initiative was the installation of outdoor drinking water fountains around campus and water purification systems to kitchen faucets around campus and in residences.

Academic focus

The Academic Division attained considerable achievements regarding sustainability in 2015. With regard to the consolidation of the sustainability research portfolio, the Academic Division installed solar panels on the roof of the BHP Billiton Building in 2015. Final connection of these panels

will take place early in 2016. Furthermore, several collaborative discussions were held between CUT and its partners under the auspices of the Regional Innovation Forum, Free State (RIFFS). In terms of curriculum development, a Sustainability Framework that is relevant to Civil Engineering was established. In addition, six subjects from the Department of Civil Engineering now have sustainability principles incorporated into them, namely: Management I: Civil; Management II: Civil; Construction materials: Civil; Water Engineering II; Transportation Engineering II; and Transportation Engineering III. Finally, the Faculty of Engineering and Information Technology, in cooperation with other stakeholders within the University, developed the Sustainability Implementation Plan 2016 that will guide sustainability-related activities in 2016.

Special Events

CUT has witnessed many changes and tremendous achievements in serving the central region of South Africa and the country as a whole. The university's pursuit of quality education and academic excellence, have brought forth great milestones. Here follows a few of the significant events for 2015:

SARChi Launch and Medical Development



At the unveiling ceremony on 14 August 2015 was Prof. Henk de Jager Deputy Vice-Chancellor: Academic and Research; Prof. Igor Yadroitsau the research chair holder, Minister Naledi Pandor, and Prof. Thandwa Mthembu, Vice-Chancellor and Principal of CUT.

3D printing is revolutionising the medical field globally and it is no different in South Africa. Also known as "additive manufacturing", 3D printing for medical purposes is restoring the quality of life of people, particularly those with severe facial disfigurements as result of cancerous tumours or injury. The Centre for Rapid Prototyping and Manufacturing (CRPM) at CUT is at the cutting edge of 3D printing or additive-manufacturing (AM) technology for medical purposes. The Centre does ground-breaking work in the design, development and manufacturing of medical devices using 3D printing. Two of them had titanium implants installed into their jaws by doctors at Kimberly Hospital last year. These implants were printed layer by layer using the AM process to ensure they fitted perfectly into the individual jaws of each patient.

The CRPM was awarded a Research Chair in Medical Product Development under the Department of Science and Technology's South African Research Chairs Initiative (SARChI), the goal of which is to increase the research output and innovation in areas that are considered essential to

the country's strategic growth and development. This Research Chair, under the leadership of Prof. Igor Yadroitsau, was awarded in recognition of the excellent work that CUT is doing in this dynamic and exciting field. Speaking at the launch of the chair, the Minister of Science and Technology, Naledi Pandor, said it was important for the country to continue to build a public environment supportive of higher education institutions: "As with many developing countries, South Africa faces the challenge of competing for leading scientists."

Entrepreneurship Education



The symposium was followed by Entrepreneurship day at CUT in October.





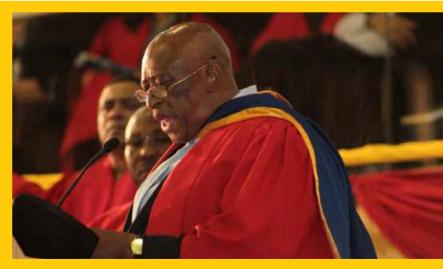
CUT hosted a two-day innovation and entrepreneurship education symposium, where two international experts from Finland and France helped us explore the role of innovation-driven partnerships in promoting entrepreneurship and regional development. The workshop covered a wide spectrum of issues ranging from problem-based learning to entrepreneurship and design thinking. Ms Jaana Puukka and Mr Juha Hautanen, who are internationally experts on the role of higher education in regional development and the use of design thinking in entrepreneurship education, respectively, offered the workshop some fresh perspectives and advice on the current trends and practices that are followed widely by many successful regions around the world.

"The role of universities is to invest in people and partnerships, embed entrepreneurship in teaching and research through projects that address the challenges and opportunities they find in the cities and regions in which they are located" said Puukka. She also said there was a challenge facing universities that are located in small or developing regions because these universities work hard to produce graduates who end up being attracted away from these cities by bigger and more prosperous cities or regions. "If universities want to play an active role in the economic development of their regions, they need to collaborate with other stakeholders (such as industry, the private sector, and regional governements) in order to benefit their regions, local communities, and industries." While Universities are excellent drivers of innovation in their regions, Ms Jaana Puukka also highlighted the challenges that they face: creating an economy that will be able to absorb the same skill that they are creating for the market.

CUT honours Professor Zakes Mda

The Faculty of Humanities at CUT honoured Prof. Zakes Mda with an Honourary Doctor of Technology Degree in Language Practice for his contribution to language practice in areas of contemporary literature and creative writing. Born in 1948, Herschel, South Africa, he completed his PhD at the University of Cape Town (UCT). An internationally acclaimed novelist, poet, and playwright, Prof. Mda is a full Professor in Creative Writing at the Ohio University in the USA; who distinguished himself among his peers. His work has been an inspiration to many institutions all over the world and everyone who had worked with him. For the students, they will draw much inspiration and lessons from his life as an artist, activist and academic.

Speaking at the graduation ceremony on 18 March 2015, Prof. Mda said, "I must express my gratitude for this honour you have bestowed on me today. I pass my congratulations to all graduates who are reaping the rewards of dedication, devotion, and hard work. You are graduates of an institution that boasts unique achievements in our Democratic South Africa. This university prides itself of being a CUT above the rest with 44% enrolment in Science Technology Engineering and Mathematics (STEM). The crowning glory of this university is that women have come to excel in fields that have previously been dominated by men."





Dr Brenton Fredericks, Head of the Department of Communication Sciences; Prof. David Ngidi, Dean of the Faculty of Humanities; Prof. Mda, and Prof. Thandwa Mthembu, Vice-Chancellor and Principal of CUT.

Prestige Lecture: Former UN High Commissioner discuss Constitutional Right to Equality at CUT

CUT hosted Judge Navi Pillay as a guest speaker at the Prestige Lecture held on 6 August 2015 at the Japie van Lill Auditorium. The Prestige Lecture is one of the most important events in CUTs calendar. Judge Navi Pillay is among such speakers whom CUT found her commitment to social justice, human peace, and stability in the world relevant to social issues shaping thinking and practices within society. Her lecture focused on the Constitutional Right to Equality as a theme emanating from transformational challenges facing higher education and the country as whole. The theme also offered interesting focus for CUT to respond to the national call from HESA and Ministry of Higher Education for the universities to come up with social cohesion programmes within the sector.



Professor Craig Mahoney, Principal, and Vice-Chancellor at the University of West Scotland; Dr Muthoni Masinde, Head of Department: Information Technology at CUT; Prof. Thandwa Mthembu, Vice- Chancellor, and Principal; Judge Pillay; Prof. Annabel Fossey, Head of Department: Life Sciences; Prof. Mojalefa Ralekhetho, Acting Executive Director: Strategy Execution Unit at CUT; and Prof. Henk de Jager, Deputy Vice-Chancellor: Academic and Research.

Watch the lecture on CUTs YouTube channel.

Public lectures

A series of public lectures focusing on a range of topics were held throughout the year. To mention but a few, the second Herman Mashaba lecture, and Prof. Yuri Maltsev who discussed Economic freedom is key to entrepreneurial success.

2nd Herman Mashaba Lecture

The Faculty of Management Sciences held its 2nd Herman Mashaba Lecture on Entrepreneurship on 28 September 2015. The lecture served as a continuation of the first lecture in terms of broad objectives of creating an entrepreneurial spirit among CUT students. It was named after Dr Herman Mashaba, a CUT alumnus, with the aim of helping the university to make further advances in developing innovative and entrepreneurially-oriented academic programmes for its students.

At the 2nd annual Herman Mashaba lecture was from left: Prof. Thandwa Mthembu, Vice-Chancellor and Principal of CUT; Prof. Kurt Leube, Dr Herman Mashaba, CUT alumnus and a business mogul and Prof. Albert Strydom, Dean of the Faculty of Management Sciences.



The lecture was presented by Prof. Kurt Leube, an acclaimed Professor from Stanford University in the USA. He spoke about the history of the Austrian School of Economics and its implications for the 21st Century. The School dates back to the 19th Century when it was first founded in 1871 with the publication of Carl Menger's *Principles of Economics*. Many of leading Austrian Economics scholars left Austria from as early as 1930s to ply their trade in a number of top seeded universities in the US and UK. No wonder its influence is felt across the globe and practised by many successful economies in the world.



Japie van Lill Auditorium during public lecture by Prof. Maltsev.

CUT hosted a public lecture entitled *Economic Freedom and Economic Success around the World* on 20 January 2015. The lecture was presented by Professor Yuri Maltsev, an internationally acclaimed speaker, who studied both BA and MA at Moscow State University and his PhD at the Institute of Labour Research in Moscow, Russia. Yuri Maltsev, Professor of Economics from Carthage College in Wisconsin in the USA, said that levels of economic freedom depend on factors such as government interferences and labour regulations. In his presentation, he demonstrated how economic freedom has helped many successful countries to create prosperity and wealth for their own people. He said that many such economies operate with minimal government interferences, relying on markets to decide what to produce, how to produce and how much to produce.

CUT partners with School Principals



Prof. Henk de Jager, Mr Pobe, South African Principals Association; Prof. David Ngidi, Dean of the Faculty of Humanities; and Prof. Thandwa Mthembu Partnerships between CUT and schools plays an important and critical role in the success of the region and beyond. On 26 August, South African Principal Association (SAPA) joined CUT academia for a strategic dinner as a way of building and maintaining good relations that already exists. Apart from partnership, the bigger picture is for schools to understand the role of CUT as a University of Technology (UoT) and its objective on socio-economic development within the region.

VC Excellence Awards: CUT Recognise Excellence

The recipients joined by Prof. Henk de Jager, Deputy Vice-Chancellor: Academic and Research (seated 2nd from left), Prof. David Ngidi, Dean: Faculty of Humanities (seated far left), Prof. Alfred Ngowi, Dean: Faculty of Engineering and Information Technology (seated far right), and Prof. Albert Strydom, Dean: Faculty of Management Sciences (standing far left).

Back row from left (2nd): Prof. Igor Yadroitsev, Innovation Award; Prof. James Swart, Advanced Career Teaching Award; recipients Mr Gerald Muriithi, Mr Remaketse Zulu, Mr Pieter Potgieter and Dr Muthoni Masinde (seated middle left) was awarded the Community Engagement Award. Dr Masinde also received the Early Career Research Award.

Front row (middle right): Ms Cameron Greyling, Early Career Teaching Award; Prof. Willie du Preez, Established Career Research Award; and Ms Nelia Venter, The IAUP/VC Excellence Award: Curriculum Innovation (awarded in absentia).



Vice-Chancellor's Excellence Awards is an annual event aimed to recognise and acknowledge employees who walk an extra mile in their field of work to achieve exceptional performance for sustained and outstanding achievements in research and innovation, teaching, curriculum innovation and community engagement activities that are in line with Vision 2020. The prestige event was held on 05 November 2015 at CUT. In acknowledging the recipients, Prof. Henk de Jager, Deputy Vice-Chancellor: Academic and Research said that achieving excellence is not a walk in the park but leadership, dedication, selflessness, compromise, sleepless nights and commitment. "I commend our recipients for a sterling job done. They are the role models for our students and fellow staff as they have excelled in their fields and impressed our CUT community, showing us that they are living the values of our strategic plan," he concluded.

Student Services

Student life at CUT is vibrant and covers a broad spectrum of activities such as student development, student governance, community service activities, residence life, working opportunities for CUT students, sports, academic support programmes, student counselling and medical services – to name but a few.

Student Services continues to provide quality service to students through various activities on both the Bloemfontein and Welkom Campuses. These services were rendered through the following operational units of Student Services: Governance and Student Life, Residences, the Wellness Centre and Operational Sport. The highlights included student leadership development, student governance, extracurricular activities and community activities.

Student Leadership

It is worth highlighting that Ms Lebo Kekana, SRC Academic Officer, was awarded a student leadership scholarship by the United States (US) Embassy for study at the US Institute (SUSI) on Civic Engagement for Student Leaders in the winter of 2016.



As the first candidate to represent CUT in this programme, Lebogang said, "it is a great honour for me to be the very first person to represent CUT in such a dynamic programme. This will also allow me an opportunity to introduce my institution to the world. I am a proud student of this unique institution that encourages us to be proactive and learn to be selfless in serving our communities." On 24 June 2015, the Student Representative Council (SRC) organised a workshop that was attended by 51 key stakeholders. The main objective of the workshop was to unpack the significance of the CUT Graduate Attributes Project that was rolled out by Academic Development and Support (ADS). Participants explored how graduate attributes could be rolled out through teaching and learning, as well as through formal and extracurricular programmes and activities. It is hoped that, as a result of participation in these formal and extramural activities, CUT graduates will be well-rounded individuals.

Health and Wellness

The Wellness Centre continued to provide a wide variety of psychological and social work services to staff and students of CUT. Emotional and social well-being is at the core of these services. Support is provided to students at individual level, where psychological and therapeutic interventions are made. In this regard, a number of group sessions and workshops were offered in areas where numerous students reported the same problems. As in the previous years, in 2015, CUT also participated in national projects initiated and driven by the Higher Education HIV/ AIDS Programme (HEAIDS).

With the support of its strategic partners, including the Department of Health (DoH), the CUT Medical Centre provided quality primary healthcare services to staff and students. In addition, ER24 rendered emergency services to all registered students. The Wellness@CUT (WELLCUT) programme for staff was launched during the course of February 2015. With this programme, staff members are offered the opportunity to screen for primary healthcare risks. The programme will continue in 2016, with the addition of a CUT Staff Supporter Club.

At first-year level, students generally struggle with the volume of academic reading work. The purpose of the reading development sessions is to improve not only students' reading ability, but also their comprehension and retention of information. Attending the reading development sessions is compulsory for all first-year students

The University uses three different admission tests. In 2015, the General Scholastic Aptitude Test (GSAT) and English Proficiency Test were used to evaluate all students who did not meet CUT's minimum admission requirements. In addition, the Self-directed Search (SDS) Test was employed by certain departments at CUT.

Residences

CUT's Bloemfontein Campus currently has four male residences and three female residences that provide accommodation to 762 students in a clean and safe environment conducive to learning. As part of the infrastructure development at both the Bloemfontein and the Welkom campuses, two new student residences are currently under construction. It is envisaged that they will be operational in full from the second semester of 2016. The new residences at the Welkom Campus are expected to accommodate 252 students, with an equal split between the two genders, while the new residence at the Bloemfontein Campus will provide 96 additional beds, thereby alleviating the shortage of residences.

Welkom residences





Bloemfontein residences













Wind Read and Char.







FINANCIAL HEALTH OF THE UNIVERSITY

As at 31 December 2015, CUT is a going concern for the near future, and, based on projections into the year ahead, there is no apparent reason to indicate that this status would change. The potential impact of the #Fees-must-fall campaign was taken into account, and Council is convinced that, for the near future, this matter is under control. Increased focus on alternative funding is also being investigated.

CUT has designed policies and procedures to ensure sufficient and efficient internal control systems. These internal control systems are appraised by the internal auditors on a regular basis; and any identified threats and/or weaknesses to the internal controls are communicated to Management, and corrective measures are employed. CUT employs the services of independent internal auditors to conduct the internal audit function. The agreed-upon objectives of the internal auditors include an evaluation of the adequacy and effectiveness of CUT's system of internal controls, as well as identifying control improvements and agreeing on action plans to improve the effectiveness of controls.

With the current system, all the internal audit findings are presented to the Management Committee (Mancom) via the Audit and Risk Committee of Council, and are eventually presented to Council. In the future, only those internal audit findings that present serious risks will be brought to the attention of Council.

Based on 2015's internal audit findings, Council has no reason to believe that there are any serious financial control deficiencies. No material control inadequacies were reported, but the internal auditors raised some concerns regarding the movement of assets. This was identified as a current challenge resulting from the cumbersome and outdated procedures, which procedures are being reviewed and redesigned to ensure efficiency and effectiveness going forward.

Once a need for a contract arises, a draft agreement is compiled in cooperation with the University's attorneys, Phatshoane Henney Attorneys (PHA), and discussed with the third party. Once consensus is reached, the agreement is signed, and copies of the agreement are filed with PHA by means of the EasyTrac Contract Management System. This contract management system keeps track of the type of contract, expiry date as well as contract value. Supplier performance management is done at user level in cooperation with the Procurement Unit. This area is being tightened up for improved supplier management.

The following are some of the highlights for 2015:

- Save for the normal lease agreements, CUT made use of an overdraft facility to the value of just over R23 million.
- The Council-controlled cost of salaries was 59.87% of the Council-controlled total income, which is line with the Ministerial guidelines.
- There is greater focus towards achieving a 60:40 split between academics and support staff, respectively.
- The budget allocations were in line with Council resolutions.
- Seven infrastructure projects were in progress in 2015. The total value of these projects was above R313 million, with DHET funding almost R256 million of that and the balance of almost R56 million funded internally by CUT. Of these projects, five are expected to be completed in the first quarter of 2016 and the last two within the last quarter of 2016.
- The provision for student debt increased by R10 million to R181 million. This is indicative of the reduced debt collectability currently faced by the sector. Efforts are made to improve the collection strategies that continue to support financially needy academically performing students.
- Total income increased by 13% to R724 million in 2015.

- Profitability ratio The deficit status of R112 million experienced in 2014, improved by 83% to just below R19 million in 2015. The ratio was -17.50% in 2014, while it was -61% in 2015. This presents a considerable improvement.
- Current ratio the current ratio decline from 1.32 in 2014 to 0.83 in 2015 was because of the introduction of an overdraft facility, an increase in accounts payable as well as a decline in cash. This rate is set to improve significantly in the first quarter of 2016 with the receipt of initial cash tranches.
- Debt ratio there was an insignificant change in this ratio; from 0.686 in 2014 to 0.692 in 2015.
- Cash & cash equivalents have declined by R85 million; this was as a result of expenditure of R181 million for property, plant and equipment, there was a cash inflow of R83 million withdrawn investment as well as R2,6 million interest earned.



Financial Statements Statement of Financial Position at 31 December 2015

CONSOLIDATED STATEMENT OF FINANCIAL POSITION as at 31 December 2015

ASSETS	Note	2015 R '000	2014 R '000
Non-current assets		886 650	828 248
Property, plant and equipment	5	729 528	588 182
Investment property	6	794	794
Other non-current financial assets	7	155 309	238 332
Leasehold asset	9	1 020	940
Current assets		158 128	189 950
Receivables and prepayments		114 992	84 846
Student debtors	10	100 764	70 834
Student loans	8	-	-
Other debtors	10	14 228	14 012
Cash and cash equivalents	11	43 136	105 105
Total assets		1 044 779	1 018 199
FUNDS AND LIABILITIES			
Funds available		436 423	450 001
Restricted use funds reserves			
		11 132	159 312
Unrestricted use funds reserves			
		425 291	290 689
Non-current liabilities		420 056	424 612
Interest bearing borrowings	12	3 192	5 792
Post retirement obligations	13	32 193	31 831
Deferred income	14	384 671	386 989
Current liabilities		188 299	143 586
Accounts payable and accrued liabilities	15	125 804	101 650
Overdrawn bank	11	23 083	-
Leave accrual	16	321	291
Current portion of interest bearing borrowings	12	2 600	3 950
Current portion of deferred income	14	36 490	37 695
Total funds and liabilities		1 044 779	1 018 199

Statement of Comprehensive income for the year ended December 2015

CONSOLIDATED STATEMENT OF FINANCIAL POSITION as at 31 December 2015

				2015 R '000			2014 R '000
	Note	Council Controlled Unrestricted	Student and staff Accommodation Unrestricted	SUB - TOTAL	Specifically Funded Activities Restricted	TOTAL	TOTAL
TOTAL INCOME		599 983	13 814	613 798	110 510	724 308	640 963
State appropriations - subsidies and grants		322 003	-	322 003	40 296	362 299	345 480
Tuition and other fee income		257 868	13 814	271 682	7 944	279 626	252 183
Income from contracts		11 347	-	11 347	60 029	71 376	32 309
Private gifts and grants		207	-	207	2 238	2 446	133
SUBTOTAL		591 426	13 814	605 240	110 508	715 748	630 105
Finance income	19	8 557	-	8 557	2	8 560	10 858
TOTAL EXPENDITURE		616 701	17 694	634 395	108 864	743 259	753 130
Personnel Costs	17	362 572	4 889	367 461	41 458	408 919	375 815
Salaries		362 692	4 889	367 581	1 458	409 039	376 415
Post retirement benefits cost	13	(120)	-	(120)	-	(120)	(600)
Other current operating expenses	18	213 862	12 806	226 667	67 406	294 073	342 847
Depreciation	18	39 697	-	39 697	-	39 697	33 973
SUBTOTAL		616 131	17 694	633 826	108 864	742 690	752 636
Finance costs	21	569	-	569	-	569	494
SURPLUS / (DEFICIT) FOR THE YEAR		(16 717)	(3 880)	(20 597)	1 646	(18 950)	(112 167)
OTHER COMPREHENSIVE INCOME							
Items that will not be reclassified to profit /(loss)							
Actuarial (loss) / gain on post retirement obligation	13	(1 284)	-	(1 284)	-	(1 284)	(2 052)
Items that may be subsequently classified to							
profit / (loss)							
Change in value of available-for-sale financial assets	8	3 621	-	3 621	-	3 621	13 582
OTHER COMPREHENSIVE INCOME / (DEFICIT) FOR THE YEAR		2 336	-	2 336	-	2 336	11 530
TOTAL COMPREHENSIVE INCOME / (DEFICIT) FOR THE YEAR		(14 381)	(3 880)	(18 261)	1 646	(16 614)	(100 637)

Statement of Cash flows for the year ended 31 December 2015

CONSOLIDATED STATEMENT OF FINANCIAL POSITION as at 31 December 2015

	Note	2015 R '000	2014 R '000	
Operating activities				
Cash generated from / (utilised in) operations	25	19 043	(4 859)	(35 348 003)
Net cash flows generated from / (utilised in) operating activities		19 043	(4 859)	
Investing activities				20 446
Acquisition of property, plant and equipment	5	(181 188)	(138 820)	105 105
Proceeds on the disposal of assets		-	-	
Other financial assets - realisation at fair value / matured	8	83 023	-	
Increase in other non-current financial assets	8	-	(25 465)	
Interest received		2 667	5 629	
Net cash flows used in investing activities		(95 498)	(158 656)	
Financing activities				
Increase / (Repayment) of obligations		(4 752)	(8 541)	(4 311 926)
Interest paid	21	(569)	(494)	
Increase / (Decrease) in deferred income	14	(3 276)	192 996	(170 541 000)
Net cash flows from / (utilized in) financing activities		(8 597)	183 961	
Net increase / (decrease) in cash and cash equivalents		(85 052)	20 446	
Cash and cash equivalents at 1 January	11	105 105	84 659	
Cash and cash equivalents at end of year	11	20 053	105 105	(307)
Cash & Cash equivalents vlg b/s		43 136	105 105	
	20 053	(23 083 345)		
		0.32	0	

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