



Central University of
Technology, Free State



Annual Report

2017



CUT — at a Glance



Central University of Technology, Free State (CUT) is the foremost higher education institution in the heartland of South Africa, dedicated to quality education and training in science, engineering and technology. CUT has developed into a leading institution able to take its place on the national, as well as international, higher education landscape.

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. 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. On 26 March 2004 the former Technikon Free State officially exchanged its “technikon” status for a tailor-made identity when its new name was published in the Government Gazette – a name that is a true reflection of what the university stands for: Central University of Technology, Free State.

CUT's history, from its humble beginnings to the proud institution it is today, is reflected in its buildings. The unoccupied buildings of the Commercial High School in St George Street, leased in 1981, soon became too small and a second building in President Brand Street was occupied. In 1988 the university purchased the former premises of the Eunice Primary School campus of the Bloemfontein College of Education. Before long these were followed by the Main Building (today known as ZR Mahabane Building); the bhpBilliton Building, which houses a large portion of the Faculty of Engineering and Information Technology; Dirk Coetzee Building, which houses the Faculty of Health and Environmental Sciences; Prosperitas Auditorium, as well as Boet Troskie Hall; and a modern Library and Information Service. Lapeng Student Centre is a hub of student activity that not only renders a valuable service with regard to the students' requirements but also ensures that they enjoy every aspect of student life to the full. This centre is equipped with an amphitheatre as well as a cafeteria where students can socialise.

However, it would be a pity if an institution's progress could be measured only by its state-of-the-art facilities. At CUT, progress and transformation go hand in hand. Within our institutional culture, CUT can also be described in terms of the needs experienced within an African context. CUT boasts a diverse student community that is a true reflection of the demographic composition. The implementation of an employment equity plan also guarantees that the academic and support staff are representative. CUT currently employs staff members in the region of 1 900.

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.

From its inception, the institution has been aware of its social responsibility towards the broader community.

The university is aware of the fact that not everyone has the privilege to study at the main campus on a full-time basis. Therefore, selected learning programmes are offered at CUT's Welkom Campus. An exciting development was CUT's incorporation of Welkom Campus of the former Vista University on 2 January 2004. Through the utilisation of modern technology, some learning programmes can also be pursued electronically via the internet. In this way, CUT is living up to its status and reputation as a university of technology.

In our efforts to educate, teach and train our students with the aid of world class technology, CUT will also focus on those values it holds dearly; namely customer service, excellence, innovation, integrity and diversity.

Visit our Vision 2020 and beyondpage to see what achievements have been made since 2012 and what we are currently focused on as a UoT.

CUT OFFER PROGRAMMES IN THE FOLLOWING FIELDS

Computer networking | Civil Engineering and Built Environment | Construction and Construction Management Engineering | Electrical Engineering | Mechanical Engineering and Applied Mathematics | Quantity Surveying | Renewable Energy Technologies | Hydrology and Water Resources Management | Logistics and Transportation Management | Information Technology | Agriculture, Environmental Health | Biomedical Technology, Clinical Technology, Radiography in Diagnostics, Dental Assisting | Somatology | 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 Management and Hospitality Management | Project Management | Public Management | Design and Studio Art | Community Development Work | Language Practice and Media Studies | 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.

Research Cluster 1	Objective	Research programmes per research entity – centre/unit/group
Technologies and Innovations for Sustainable Development	To investigate and apply technologies and/or innovation to foster and promote sustainable development.	Centre for Rapid Prototyping and Manufacturing (CRPM)
		Unit for Evolvable and Manumation Systems (RGEMS)
		Unit for Lean Construction and Sustainability
		Group for Sustainable Urban, Roads and Transport (SURT)
		Group of Soil Mechanics
		Unit for Sustainable Water and Environment
		Unit for Research on Informatics for Droughts in Africa (URIDA)
		Research Group in Engineering Education (AGREE)
Research Cluster 2	Objective	Research programmes per research entity – centre/unit/group
Quality of Health and Living	To apply scientific research in different disciplines to improve on the quality of health and living standard of humans, animals and plants.	Centre for Applied Food and Biotechnology (CAFSB)
		Unit for Drug Discovery Research
Research Cluster 3	Objective	Research programmes per research entity – centre/unit/group
Socio-Economic and Entrepreneur-ship Development	To do scientific research that empowers society for invaluable contributions to sustainable socio-economic development.	Unit for Public Management and Administration
		Unit for Enterprise Studies
		Unit for Tourism Destination and Management
		Unit for Research in Scholarship of Teaching and Learning (RSoTL)
		Unit for Scholarship in Research Education
		Unit for Foundations of Education
Unit for Mathematics, Science and Technology Education Research		

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.

For more information visit, <https://www.cut.ac.za/cut-at-a-glance>

Vision

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.

Mission statement

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.

Core values

- Customer service
- Integrity
- Diversity
- Innovation
- Excellence

CUT Leadership Charter

Excellent, quality and inspirational leadership is the cornerstone of any successful organisation. This value-based 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 above.

For more information, visit <https://www.cut.ac.za/vision-2020> and <https://www.cut.ac.za/vision-2020-and-beyond>



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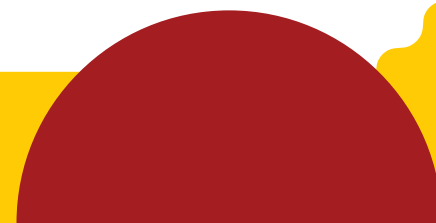
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Management

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 during which 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.

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.

Most notable event of 2017 was the appointment of Prof de Jager as a new Vice-Chancellor and Principal based on his distinguished academic credentials, creative leadership qualities and entrepreneurial spirit with focus on transforming the length and breadth of university's academic programmes and driving a new culture of entrepreneurship and innovation education among both students and staff at CUT.

Prof de Jager assumed the leadership of CUT now when the university is beginning to consolidate its position as a leading university of technology in Science, Technology, Engineering and Mathematics (STEM), medical product development through additive manufacturing (3D printing technology) as well as innovation and entrepreneurship education.

In addition to his distinguished academic credentials at CUT as Deputy Vice-Chancellor: Academic Research and Deputy Vice-Chancellor: Research, Innovation and Engagements, Prof de Jager has led CUT in series of actions through Strategic Transformation of Education Programmes and Structures (STEPS) to revamp all university courses into market-focused academic programmes which are unique in South Africa. Under his leadership, CUT has increased a number of academic staff with doctorate to 30 percent and has added significant new academic programmes.

We are excited about significant achievements and contributions which Prof de Jager has brought to CUT since 2012 and it is our intention as Council to appoint him as our next Vice-Chancellor and Principal so that he drives to conclusion Vision 2020 which seeks to contribute to the development of the region with focus on impact and building sustained partnerships with business, government and industry.

In presenting this report to our partners in government, business and industry, parents and public, I wish to thank all Members of Council and Management for their courageous and visionary leadership, as well as their total support during 2017 academic year.

Mr Mike Mohohlo

Chairperson of Council

Message from the Vice-Chancellor and Principal

The CUT community should strengthen our foundation and the building blocks of a UoT through courageous efforts in unity, in order to create new paradigms, anticipate the future, and challenge the status quo. Although we should be proud of our history and our origin as an institution, we should finally close the chapter of being referred to as a “technikon”, and enhance CUT as a true, fully fledged UoT over the next five years, focusing on innovative problem-solving and career-directed academic programmes, in addition to the basic responsibilities of a university, and leading the way in ensuring that our applied research and social and technological innovations operate to the benefit of the region and the country as a whole.

The university sector is operating in trying times, as universities struggle to remain financially viable. Of relevance in this regard, is the #Fees-Must-Fall campaign, which led the State President to appoint the Heher Commission to investigate the matter. The Heher Commission of Inquiry Report into the Possibility of Free Tertiary Education in South Africa was compiled by the Commission. The Report does not recommend the introduction of fee-free tertiary education, and made recommendations on a number of matters relating to the financing of higher education institutions. As indicated earlier, the State President’s response was an announcement of the implementation of a fee-free higher education system, to be implemented as of 2018, to be phased in over a five-year period.

In the report it is highlighted that the uncertainty around universities’ tuition fees has been de-stabilising. Whilst awaiting the release of the Presidential Commission’s report by the State President of South Africa, the university sector in South Africa was under pressure.

The university continued to implement a variety of cost-containment measures in 2017. We have a collective responsibility to enhance the financial sustainability of our institution. The support and commitment of all staff and students

to instil a “culture of cost-savings”, and to improve efficiency and effectiveness, are crucial in this regard. Although the cost-savings initiative has contributed to the financial sustainability of the university, this is not likely to be significant in the future, given the rising costs of running a university, as well as the ever-changing client expectations. It is believed that “at the heart of people excellence is the building of a high-performance culture, by improving the performance of each individual to enhance the productivity and efficiency of the university”.

From 2012 to 2015, the university focused on the Academic Project to improve teaching and learning; and research and innovation. The theme for 2016, “The Year of Innovation and Entrepreneurship”, was not without outstanding achievements, as the DHET recognised CUT for our leadership role in innovation and entrepreneurship. It has already been mentioned that the theme for 2017 was “The Year of the Human Project”.

I would like to acknowledge the Chairperson of Council and the entire CUT Council for their guidance and support during the year under review. Thank you also to the Management Team for their hard work and dedication, and to all staff and students, including the unions, student leaders and alumni, for your commitment and support.

Looking back at 2017, there is no doubt that it was a successful year for CUT. I am convinced that our implementation of the renewed vision for CUT will result in 2018 being an excellent year!

Prof. Henk de Jager
Vice-Chancellor and Principal

Strategic Direction for CUT

The activities of the Central University of Technology, Free State (CUT) for the year 2017 were guided by the university's Vision 2020, as well as its Strategic Plan 2016 – 2020. To support the vision and Strategic Plan, the university compiled three strategic sets, as per Table 1 below. These sets define the interconnected dimensions of the university's strategic development path towards the achievement of its vision and mission. Furthermore, to give direction regarding the achievement of the vision and Strategic Plan, five strategic goals were developed, namely:

1. institutional advancement;
2. teaching and learning;
3. research and innovation;
4. university life; and
5. ensuring financial sustainability.

The relationship between the strategic sets and goals is depicted in Table 1.

Strategic sets and goals

The following three strategic sets were developed for the Strategic Plan 2010 – 2015 and Strategic Plan 2016 – 2020:

1. Strategic Set 1 (**SS1**) (2010 – 2013):
Building foundations to ensure CUT is fit for its purpose.
2. Strategic Set 2 (**SS2**) (2014 – 2017):
Innovating on the academic project, especially in STEM.
3. Strategic Set 3 (**SS3**) (2018 – 2020):
Building strategic partnerships, in order to realise internal, regional, national and international goals, especially socio-economic development, through regional innovation.



The table below depicts the link between the strategic sets and the university's strategic goals. From the table, it can be established that, despite the fact that the strategic sets are assigned periods, and are thus intended to enjoy focus for a particular period of time, they remain relevant for the life of the Strategic Plan.

Strategic sets (SS)	Defining characteristic of Vision 2020 (from the previous plan)	Link to the strategic goals (2016 – 2020)
SS1	<ul style="list-style-type: none"> ■ New values, ethos, attitudes, behaviours and relations. ■ New organisational design, function and structure, aligned with Vision 2020. ■ State-of-the-art facilities. ■ Developing high-level skills and competencies amongst staff, especially younger members and designated groups. ■ Pre-university programmes for learners in science, engineering and technology (SET). 	<ul style="list-style-type: none"> ■ Goal 1: Institutional advancement ■ Goal 2: Teaching and learning ■ Goal 4: University life ■ Goal 5: Financial sustainability
SS2	<ul style="list-style-type: none"> ■ Academic, research and innovation programmes. ■ Niche areas and centres. ■ Learner-centred methodologies and facilities. ■ Emancipating, empowering and supporting engagements and transactions between students and staff, and amongst staff. 	<ul style="list-style-type: none"> ■ Goal 1: Institutional advancement ■ Goal 2: Teaching and learning ■ Goal 3: Research ■ Goal 4: University life
SS3	<ul style="list-style-type: none"> ■ Focusing on innovation for industrial and socio-economic development. ■ Incubation platforms for small-, medium- and micro-sized enterprises (SMMEs) in the manufacturing and agricultural sectors. ■ Strong links with business and industry through public and private partnerships (PPPs) and other mechanisms. 	<ul style="list-style-type: none"> ■ Goal 1: Institutional advancement ■ Goal 3: Research

Table 1: Defining characteristics of Vision 2020

Performance monitoring

As set out in Table 1 above, targets were set for each strategic objective for the year 2020, as well as annual targets for the year under review, namely 2017. The targets for each strategic objective form part of the Annual Performance Plan (APP) and Institutional and Operational Plan (IOP). Each Executive Manager was assigned responsibility for the achievement of specific set objectives and targets. This assignment was formalised by accordingly capturing it as part of each relevant Executive

Manager's Key Performance Indicators (KPIs), in order to ensure accountability at that level. Progress towards the achievement of the objectives and targets was monitored at divisional level through the continuous evaluation of, and feedback on staff's performance. The monitoring of each division was done at Management Committee (Mancom) level, to which all Executive Managers submitted formal reports and delivered presentations. In terms of engaging on the performance status, reports on targets achieved were celebrated, whilst unmet targets were discussed with a view to understanding the cause

of the non-achievement of the targets; the impact (i.e. risk, etc.) thereof for the university; whether this was permanent or temporary; as well as the way forward regarding unmet

targets. Table 2 below provides details of the five institutional strategic goals for the Strategic Plan 2016 – 2020, as well as the associated objectives thereof.

GOALS	OBJECTIVES
<p>1. Institutional advancement Continuously advancing the concept of a university of technology (UoT) to all stakeholders.</p>	<ul style="list-style-type: none"> ■ Enhancing engagement with business/ industry, government and its entities, and broader society, for local and regional development, and bringing internationalisation to bear in support of this [SS3]. ■ Embracing the use of innovation and technology to facilitate effective and efficient business processes [SS3]. ■ Provide a sustainable teaching and learning environment, with first-class facilities and infrastructure [SS2]. ■ Improving and enhancing governance and management [SS1].
<p>2. Teaching and learning Shaping the academic future of CUT in such a way that it is high quality, niche focused and differentiated.</p>	<ul style="list-style-type: none"> ■ Providing quality teaching and learning [SS2]. ■ Reviewing the approach to education to facilitate our graduates' entry into the workplace or entrepreneurship [SS2]. ■ Recruiting and supporting high-quality students from all backgrounds, especially in areas of STEM, at undergraduate and postgraduate levels (including international students) [SS2].
<p>3. Research and innovation Establishing CUT as a research-informed UoT that has distinct pockets of research excellence and value-adding links with government, business and industry.</p>	<ul style="list-style-type: none"> ■ Delivering excellence in all our areas of research, with defined peaks of world-leading performance [SS2]. ■ Employing our social and technological innovations for the socio-economic development of the city and the region [SS2].
<p>4. University life Creating an institution that encourages a diverse, democratic and academic ethos amongst students and staff.</p>	<ul style="list-style-type: none"> ■ Providing a vibrant and healthy environment, and promoting organisational well-being [SS1]. ■ Proactively attracting, retaining, supporting and developing high-quality staff [SS1].
<p>5. Financial sustainability Ensuring financial sustainability.</p>	<ul style="list-style-type: none"> ■ Ensuring financial sustainability in all entities, and, where applicable, supplementing the university's income with third-stream income [SS1].

Table 2: Institutional goals and objectives

Summary report on annual performance plan and institutional operational plan 2017

Table 3 below presents the performance results for the year under review, namely 2017. From the table, it can be established that the university has met its targets in some instances, whereas these have not been met in other areas, for various reasons.

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
Stakeholders/ partners (Ref.: 5)	1. Enhance engagement and partnerships with business, public and third-sector partners to create social and economic benefit, and advance internationalisation (S1).	a) Improve brand awareness by 30% of the baseline by 2020 (S1.1).	Increase CUT brand awareness by 15% in 2017.	Annual brand reputation study; Communications and Marketing reports. (Evidence TL 1)	Parameters to measure brand awareness established.	Advertising Value Equivalency (AVE) total for 2017 = 5022 clips; 26 functions; 41 outreach programmes; 81 media statements.	Target achieved.		DVC: Resources and Operations
		b) Achieve the objectives set in the Internationalisation Strategy (S1.2).	Fully implemented CUT Internationalisation Strategy, which includes a Marketing Strategy and Plan, and special interventions to increase the number of international students at CUT.	International Office reports; Research, Innovation and Engagement Division reports. (Evidence RIE 1)	500 (growth of 5,6%, or at least a 0,7% average, per annum).	505 international students (growth of 11,23%, from 454 in 2016).	Target achieved.		DVC: Research, Innovation and Engagement
					20 (accumulative)	32 active and three newly signed agreements (accumulative).	Target achieved.	DVC: Research, Innovation and Engagement	
					Southern African Development Community (SADC) = 5; Africa = 5; Brazil, Russia, India and China (BRIC) = 2; global = 8.	Southern African Development Community (SADC) = 5; Rest of Africa = 5; Brazil, Russia, India and China (BRIC) = 2; global = 8.	Target achieved.		
Internationalisation of curricula in programmes.	Faculty reports; Research, Innovation and Engagement Division reports. (Evidence TL 2)	Four programmes (one per faculty).	Seven programmes.	Target achieved.	DVC: Teaching and Learning				
c) 100% increase in the number of active partnerships by 2020 (S1.3).	Increased number of active partnerships with agencies and government.	Faculty reports; Research, Innovation and Engagement Division reports; Registrar's Division reports. (Evidence RIE 2)	At least two new, relevant triple-/quad-helix partnerships; 17 active partnerships with government and/or agencies; and 11 others.	51 active partnerships with government, private sector and non-governmental organisations (NGOs).	Target achieved.		DVC: Research, Innovation and Engagement		

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
			Execution of industry-supported projects/number of active partnership projects.	Faculty reports; Research, Innovation and Engagement Division reports. (Evidence RIE 3)	More than 430 industry-supported projects completed by the Centre for Rapid Prototyping and Manufacturing (CRPM), the Product Development Technology Station (PDTs), and faculties.	More than 620 industry-supported projects completed by the CRPM, PDTs, and faculties.	Target achieved.		DVC: Research, Innovation and Engagement
			Promote the Regional Innovation Forum, Free State (RIFFS), and its impact on regional development.	Research, Innovation and Engagement reports. (Evidence RIE 4)	Five interventions, to lead to two active regional projects.	Consolidated and confirmed two active regional projects.	Target achieved.		
			Number of active academic and research projects with peer institutions.	Research, Innovation and Engagement Division reports; International Office reports. (Evidence RIE 5)	Ten active joint research projects in 2017.	38 active joint research projects with peer institutions in 2017.	Target achieved.		DVC: Research, Innovation and Engagement
			New partnerships developed with business and industry.	Faculty reports; Research, Innovation and Engagement Division reports. (Evidence RIE 6) (Evidence TL 3)	Eight new research partnerships (two research centres; four STEM research units; two research units). 20 work-integrated learning (WIL) partnerships.	20 new research partnerships (15 research centres/ STEM research units; five research units). 27 WIL partnerships.	Target achieved. Target achieved.		DVC: Research, Innovation and Engagement DVC: Teaching and Learning
	2. Recruit and support high-quality students from all backgrounds, especially in areas of STEM, at undergraduate and postgraduate levels, including international students (S2).	a) 100% intake of students with an M-score of 27 or higher (of which 50% should have an M-score of 32), by 2020 (S2.1).	Improvement in the M-score ratings of admitted students.	Higher Education Management Information System (HEMIS). (Evidence TL 4)	46% of first-time entering undergraduate students with an M-score of 27 or higher, of which 14.5% should have an M-score of 32.	57,55% (2089 of 3630) of first-time entering undergraduate students with an M-score of 27+ (excluding ECPs). 15,92% (578 of 3630) with an M-score of 32+ (excluding ECPs).	Target achieved. Target achieved.		DVC: Teaching and Learning

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
	b) Increased intake of first-time entering students at undergraduate level, and full-time master's and doctoral students (S2.2).	2016 master's and doctoral student enrolment target met, with the primary focus on full-time students.	HEMIS (Evidence RIE & TL)	Master's degree students: 280 (from the 2016 target of 300).	Master's degree students: 368.	Target achieved.			DVC: Research, Innovation and Engagement
				Doctoral students: 150 (from 120 in 2016).	Doctoral students: 166.	Target achieved.			
				50% of all postgraduate students should be full-time students (target in the CUT Research and Development Plan = 254 master's degree and 97 doctoral degree students).	63,04% of all postgraduate students are full-time students (45,18% of doctoral, 48,10% of master's degree, and 80,23% of postgraduates at a level lower than master's degree students, are full-time students).	Target achieved.			
	c) Enrolment targets met, as set in the Academic Plan (S2.3).	2016 enrolment targets met, including size and shape.	HEMIS (Evidence TL 5)	98% (all faculties).	First-year enrolment: 98% (4 057).	Target achieved.			DVC: Teaching and Learning
				STEM: 48.5%	STEM headcount: 48,63%.	Target achieved.			
				Student headcount: 15 300	Student headcount: 18173.	Target achieved.			
	d) 50% of students entering undergraduate/postgraduate programmes complete those programmes in the minimum time, by 2020 (S2.4).	Undergraduate/postgraduate students complete programmes in the minimum time.	HEMIS (Evidence TL 6)	33% of students entering undergraduate/postgraduate programmes complete those programmes in the minimum time.	33% (2016 figure, due to the fact that 2017's graduates, as per the DHET's definition, are students who conclude their studies between 1 August 2017 and 31 July 2018).	The 2016 actuals were used, as the 2017 actuals are not available because, as per the DHET's definition, 2017's graduates are students who conclude their studies between 1 August 2017 and 31 July 2018.	Corrective measures, if necessary, will be provided once the 2017 actuals are available.	DVC: Teaching and Learning	

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership	
	3. Provide quality teaching and learning (S3).	a) Success rate (in accordance with the Academic Plan) (S3.1).	Success rate in accordance with the CUT Academic Plan.	HEMIS (Evidence TL 7)	Pass rate: 76%	74,26% pass rate as at 23 February 2018.	Unrests and disruption of assessments at the Welkom campus due to NFSAS-related matters.	Mitigation of NSFAS problems.	DVC: Teaching and Learning	
					Graduation rate: 24,5%	23% (2016 figure, due to the fact that 2017's graduates, as per the DHET's definition, are students who conclude their studies between 1 August 2017 and 31 July 2018).	The 2016 actuals were used, as the 2017 actuals are not available because, as per the DHET's definition, 2017's graduates are students who conclude their studies between 1 August 2017 and 31 July 2018.	Corrective measures, if necessary, will be provided once the 2017 actuals are available.		
			Implemented CUT Teaching and Learning Plan relevant to the student academic support interventions.		Students in extended curriculum programmes (ECPs): 900	1 106 students in ECPs.	Target achieved.			
			Implement new academic programmes, and develop advanced and postgraduate diplomas to replace BTech programmes.		Implement all approved programmes.	100% implementation of Category C academic programmes.	Target achieved.			
				90% of advanced and postgraduate diplomas developed to replace BTech degrees.	15 of 18 advanced diplomas (83,33%). 15 of 20 postgraduate diplomas (75%).	90% (15 of 18) advanced diplomas, and 15 of 20 postgraduate diplomas, were developed (four are at Curriculum Committee stage)	No need for corrective measures, with the exception of finalising the development of the outstanding programmes.			
				Implement all approved Category B programmes.	All (11) Category B programmes were implemented.	Target achieved.				
			Proportion of projects aligned with major research themes.		50% of projects aligned with major research themes.	50% of projects were aligned with major research themes (target achieved).	Target achieved.			
4. Reviewing the approach to education to facilitate our graduates' entry into the workplace or entrepreneurship (S4).	a) Employability of graduates (80% employed within 12 months after graduation, by 2020) (S4.1).	63% of graduates employed within six months after graduation.	Graduate employability survey. (Evidence TL 8)	56% of graduates employed within three months after graduation.	45,63% of graduates were employed/self-employed within three months after completion of their studies. (Total from March and September 2017 graduate surveys.)	Tool not accurate or reliable. Employability is beyond one's control	Identification of an accurate and reliable tool.	DVC: Teaching and Learning		

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
	5. Embrace the use of technology to streamline our effective and efficient business processes, and offer entrepreneurial education unique to a UoT (P1).	a) 80% fully automated online business processes and systems that deliver results, by 2020 (P1.1).	Automation of online business processes and systems that deliver results.	Resources and Operations Division reports. (Evidence ITI 1) (Physical evidence available on CUT systems.)	40% of processes identified are automated by the third quarter of 2017.	23% fully automated online business processes and systems.	Some divisions' processes are not yet fully automated, due to the inability to map and define all processes. Challenges in appointing Business Analysts to evaluate the processes.	Start monthly conversations with the divisions to establish the state of automation in each. Initial lists completed. Place automation as an item on the ICT Steering Committee's agenda.	DVC: Resources and Operations
		b) 20% of all advanced and postgraduate academic programmes are accessible on flexible mode of learning by 2020 (P1.2).	Development of online programmes.	Centre for Innovation in Learning and Teaching (CILT) reports; Teaching and Learning Division reports. (Evidence TL 9)	Three online programmes developed.	Three online advanced diploma/higher certificate programmes were developed.	Target achieved.		DVC: Teaching and Learning
	6. Provide a sustainable teaching and learning environment, with first-class facilities and infrastructure (P2).	a) Fully equipped, maintained and secure facilities by 2020 (P2.1).	Access of students and staff by swipe/biometric system.	Resources and Operations Division reports; satisfaction surveys on the state of facilities and infrastructure. (Evidence ITI 2) (Physical evidence available on CUT systems.)	50% of campus and buildings accessed by swipe or biometric system.	5% of campus and buildings accessed by swipe or biometric system.	The project was delayed due to delays experienced in the provision of network equipment, cabling, and the appointment of a contractor. The price negotiation process took longer than expected	Installation of the outstanding components is continuing. The DHET has availed additional funding for fast delivery of the project.	DVC: Resources and Operations
			Repair dysfunctional security cameras.		Repair all dysfunctional security cameras.	All dysfunctional security cameras were replaced with 120 new CCTV cameras.	Target achieved.		
			Provide and maintain facilities for teaching and learning.		85% of equipment in place and in working order.	75% provisioning and maintenance of teaching and learning infrastructure.	Maintenance of equipment is on track. However, there was no sufficient budget for the provisioning of equipment in the new buildings.	Provision of a budget for equipment in the new building.	
		b) Teaching, learning and research space as a proportion of total space (P2.2).	Providing enough teaching and research space.		35% of teaching and research space as a proportion of total space.	39% provisioning of enough teaching and research space.	Target achieved.		

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
	7. Deliver excellence in all our areas of research, with defined peaks of world-leading performance, and increase our market share of research income (P3).	a) 100% achievement of all targets set in the Research and Development Plan, by 2020 (P3.1).	Fully achieved targets, as set in the Research and Development Plan for 2017.	Research, Innovation and Engagement Division reports; faculty reports; DHET; National Research Foundation (NRF). (Evidence RIE 8)	120 credit units.	117.09 credit unit publications, vs. the target of 98 (2016 figure). The actual credit unit publication figure for 2017 will be available later in 2018. A total of 121.97 credit units are estimated, but the DHET's approval of these are awaited.	2016 target exceeded.	No corrective measures are required as of yet.	DVC: Research, Innovation and Engagement
					Rated scientists: 12	Number of rated researchers increased to ten.	The rating processes apparently take longer than one year in some cases (e.g. in Civil Engineering), and some of the employees who received ratings (e.g. in the Faculty of Health and Environmental Sciences) left the employ of CUT shortly thereafter.	Collaborating with the NRF on rating mentorship. Staff who are potentially rateable were identified, and were mentored on how to write their applications before submitting it to the NRF. This process is continuous. Hence, every year, there will be staff who are ready to submit applications for rating.	
					Postdoctoral fellows: 6	Postdoctoral fellows: 5.	Budget constraints did not allow the recruitment of the targeted six postdoctoral fellows.	Some additional funding was allocated for post-doctoral fellows. Researchers are also encouraged to apply for NRF support, for post-doctoral purposes.	
			45 master's degree graduates.	47 master's degree graduates.	Target achieved.				
			16 doctoral graduates.	16 doctoral graduates.	Target achieved.				
			Fully functional Graduate School (PG School), promoting postgraduate studies.						

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
		b) Increased external research funding, according to set targets, as per the Research and Development Plan (P3.2).	Fully achieve the target set for external research funding.	Finance Section reports (Evidence RIE & F1)	NRF = R10 million; DHET = R5,264 million; Technology Innovation Agency (TIA) Seed Fund = R4,7 million.	NRF = R20 million; DHET = R9,9 million; TIA Seed Fund = R1,3 million.	Target achieved. Target achieved.	As this KPI relates solely to the TIA, we are at the mercy of their budget availability. However, for 2018, new proposals will be sent to the TIA, to increase the bank of projects that are eligible for funding.	
		c) Enhanced teaching/research nexus (P3.3).	Vibrant Scholarship of Teaching and Learning (SoTL) unit/group. Problem-solving and user-oriented research.	CILT reports; Research, Innovation and Engagement Division reports. (Evidence TL 10) (Evidence RIE 9)	One annual SoTL Conference; 13 SoTL research outputs (increased accredited articles/conference proceedings). 50% of all registered projects.	36 SoTL research outputs (increased accredited articles/conference proceedings). 50% of the projects aligned with major research themes (set target of 50% achieved).	Target achieved. Target achieved.	Eight projects that met criteria for seed funding were submitted to the TIA, but only two were considered in 2017, due to budget constraints. The TIA indicated that they banked the remaining six projects, for consideration when funds become available.	DVC: Teaching and Learning DVC: Research, Innovation and Engagement

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
	8. Employ our social and technological innovations in the socio-economic development of the city and the region (P4).	a) 100% achievement of all targets set in the Technology and Innovation Plan, by 2020 (P4.1).	Fully achieve all targets set in the Technology and Innovation Plan for 2017.	Research, Innovation and Engagement Division reports (Evidence RIE 10)	Six patents and intellectual property (IP) registrations on designs. Incubate six tenant incubators at the Bloemfontein campus, and four tenants at the Welkom campus. Target = 15. Six recorded innovative ideas, and converted to processes/ products/ services as part of innovation, design and manufacturing of at least 15 medical and other devices/ products for industry.	Five provincial patents registered. Six incubated companies at the Bloemfontein campus, and two at the Welkom campus. 51 medical devices manufactured.	Seven submissions were made. Two were found lacking adequate novelty. Lack of space at the Welkom campus. Target achieved.	The matter of novelty will be addressed through workshops facilitated by patent experts. Many more submissions than the target will be made. More space has been allocated at the Welkom campus. A concerted effort is made to attract tenants.	DVC: Research, Innovation and Engagement
	9. Internal processes (P5).	a) 70% staff satisfaction by 2020 (P5.1).	Staff satisfaction increased by 20% in 2017.	Staff satisfaction survey. (Evidence HR 1)	Staff satisfaction increased by 20%.	No survey was conducted in 2017.			DVC: Resources and Operations (Director: HR)
		b) 90% student satisfaction by 2020 (P5.2).	Providing a vibrant and healthy environment for students.	Student satisfaction survey. (Evidence REG 1)	20% (14 of 70) active and supported student organisations/ societies participating in CUT's Annual Plan.	27% (19 of 70) active and supported student organisations/ societies participated in CUT's Annual Plan.	Target achieved.		Registrar
		c) University sustainability project fully mainstreamed (P5.3).	Implement relevant sustainability projects within the divisions.	Sustainability Plan and report. (Evidence RIE 10)	Availability of additional on-campus sporting facilities.	No additional on-campus sporting facilities were made available.	Lack of a sufficient budget.	Plans are underway to provide a sports field at the Welkom campus. Plans are underway to provide outdoor gymnasium facilities at both campuses.	DVC: Research, Innovation and Engagement

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
Learning and growth (Ref.: L)	10. Proactively attract, retain, support and develop high-quality staff (i.e. talent management) (L1).	a) 100% of the Talent Management Plan implemented by 2020 (L1.1).	Improved academic qualifications, and development of all staff, applying the twin challenge of equity and excellence.	Faculty reports; HR reports. (Evidence TL 11)	110 academic staff holding doctorates (of which five should be Black females). 40 academic staff at the rank of Associate Professor/ Professor (of which five should be Black females).	113 academic staff hold doctorates (of which nine are Black females). 45 academic staff at the rank of Associate Professor/ Professor (of which five are Black females).	Target achieved. Not enough female candidates met the promotion requirements.	Providing support to female academics.	DVC: Teaching and Learning; DVC: Research, Innovation and Engagement
		b) 100% functioning performance management system implemented by 2020 (L1.2).	Functioning Human Resources (HR) Information System.	HR reports. (Evidence HR 2) S-Cubed System available for evidence.	Functioning HR Information System.	No HR system implemented.	Pending the finalisation of a tender.	Tender processes to be finalised, and services procured before year-end.	DVC: Resources and Operations
		c) 50% of teaching staff with industry exposure, by 2020 (L1.3).	Staff development, including industry exposure.	Faculty reports. (Evidence TL 12)	7% of staff to gain industry exposure for a minimum of seven days.	3,4% of staff gained industry exposure for a minimum of seven days (19 of 565 teaching staff).	Not many academic staff could go on industry exposure due to a heavy workload.	Workload to be better managed.	DVC: Teaching and Learning
		d) Fully implement the Equity and Transformation Plan by 2020 (L1.4).	Improved equity and transformation statistics.	HR Report.	RSA African male: 792 (34,55%) RSA Coloured male: 69 (3,01%) RSA Indian male: 18 (0,79%) RSA White male: 236 (10,30%) RSA African female: 726 (31,68%) RSA Coloured female: 83 (3,62%) RSA Indian female: 13 (0,57%) RSA White female: 304 (13,26%) Foreign national male: 36 (1,57%) Foreign national female: 12 (0,65%)	RSA African male: 567 (32,79%) RSA Coloured male: 47 (2,72%) RSA Indian male: 7 (0,40%) RSA White male: 163 (9,43%) RSA African female: 570 (32,97%) RSA Coloured female: 51 (2,95%) RSA Indian female: 7 (0,40%) RSA White female: 222 (12,84%) Foreign national male: 61 (3,53%) Foreign national female: 30 (1,74%)			

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
Learning and growth (Ref.: L)	11. Improve and enhance institutional governance (L2).	a) Application and/or explanation of all relevant principles of the King IV Report, by 2020 (L2.1).	Developed governance documents for enabling application.	Registrar's reports; audit reports. (Evidence REG 2)	Terms of reference of statutory committees reviewed and revised in compliance with the King IV Report. Council Charter documents the roles and responsibilities of the Chairperson, Secretary and members; membership requirements; and procedural conduct. Approved establishment of business continuity arrangements. A report disclosing the arrangements for governing and managing compliance. A report disclosing the arrangements for governing and managing Information and Communication Technology (ICT). Full implementation at strategic level.	Terms of reference of statutory committees were reviewed and revised in compliance with the King IV Report. A Council Charter that documents the roles and responsibilities of the Chairperson, Secretary and members; membership requirements; and procedural conduct, were developed. These were approved by Council in November 2017. Phase 1 of the business continuity arrangements was approved. A Compliance Framework and Regulatory Universe were approved. An ICT Steering Committee was established, and advises on governing and managing ICT. Full implementation at strategic level.	Target achieved.		Registrar
		b) Implement and manage the Enterprise Risk Management Framework across divisions, by 2020 (L2.2).	Proper risk management; improved performance.	Audit and Risk reports.					

Perspective	Objectives	Key performance indicator (KPI)	Performance indicator (2017)	Tracking source (evidence)	2017 target	2017 actual	Reasons for under-performance	Corrective measures	Ownership
Resources (Ref.: F)	12. Financial sustainability in all entities (F1).	a) Increase subsidy by full-time equivalent and outputs rates (F1.1).	Targets for student numbers reached.	Audited Annual Financial Statements. (Evidence TL)	Student population, full-time equivalent (FTE) and teaching input units (TIUs), as per the Academic Plan.	13222 FTEs, vs. the DHET target of 11549; 31824 TIUs, vs. 24285. (Allocated by the DHET Ministerial Statement on University Funding, November 2017.)	Target achieved.		DVC: Teaching and Learning
		b) Increase third-stream income to 10% of the total income, by 2020 (F1.2).	Faculties, sections and research entities, excluding CUT Innovation Services (CUTIS), active in third-stream income generation.	External funding and third-stream income; annual reserve analysis based on audited figures; audited Annual Financial Statements. (Evidence TL 13 & FIN 3) This will be confirmed upon finalisation of the audit.	R26 million – Faculties = R16 million; CRPM and PDTS = R10 million; Sector Education and Training Authorities (SETAs) and WIL employers = R10 million; SETAs = R12 million.	Faculties = R26 million; CRPM and PDTS = R 11,8 million; SETAs and WIL employers = R15,8 million.	Target achieved.		DVC: Research, Innovation and Engagement; DVC: Teaching and Learning
			Offer short courses and programmes for the working population.	CUTIS and faculty reports.	Four new short learning programmes developed (one per faculty); two new programmes (one per research centre).	50% progress.	The policy and procedure for continuing education (CE) were approved late in the year.	Strict adherence to, and implementation of the CE policy and procedures.	
			Strategically focused relationship with CUTIS, with the aim of achieving organisational goals in terms of third-stream income, through optimising institutional resources.		R10 million third-stream income profit.	R13 million third-stream income; R464 952 profit.			DVC: Research, Innovation and Engagement
		c) Effective and efficient use of resources within budget parameters (F1.3).	A positive budget excess at the end of the year; maintaining sound financial management.	Approved annual operational budget. (Evidence FIN 4) Attached Management accounts as at 31 December 2016.	30% of agreed cost-saving measures implemented to realise (%) as excess of the budget.	Over-spending on most of the agreed cost-containment targets for 2017.	Ineffective budget control and review.	Implementing effective budget controls, and monitoring these on a regular basis, in order to timeously identify areas of potential over-spending.	DVC: Resources and Operations (Chief Financial Officer (CFO))

Note: Green means the 2017 target was achieved; red means the 2017 target was not achieved; and yellow means that the 2017 final/actual data is not available as of yet.

Table 3: Summary report on Annual Performance Plan (APP) and Institutional Operational Plan (IOP) 2017

Management and Administration

Executive management team members



**Prof. Henk
de Jager**

Vice-Chancellor
and Principal



**Prof. Alfred
Ngowi**

Deputy Vice-Chancellor:
Research, Innovation
and Engagement



**Prof. David
Ngidi**

Deputy Vice-Chancellor:
Teaching and Learning



**Dr Nothemba
Mrwetyana**

Registrar



**Dr Solomon
Makola**

Director:
Welkom Campus

This section provides an overview of the achievements of CUT under the leadership of the Executive Team of the University, who in turn reports to the Vice-Chancellor and Principal, during the course of the 2017 academic year. The Institutional Operational Plan (IOP) and Annual Performance Plan (APP) for 2017 are two source documents that consolidated the operational plans of each division and other programmes within the University, and clearly outlined the divisional goals and objectives, performance indicators and targets of the respective divisions, programmes and sub-programmes.

As highlighted earlier, the theme for 2017 was agreed to as the “Year of the Human Project”, and various special projects provided substance to this theme. The 2017 period under reporting was a successful time for the university. We managed to continue with the academic year with only minor disruptions, despite several reported incidents at other universities, mainly

due to challenges related to NSFAS payments. We have also ensured a stable staff workforce through previous constructive engagements and agreements on wage increases and other staff-related matters.

The following matters, other than the normal operations of the university, enjoyed focus during the year:

- engaging with unions;
- engaging with the SRCs at the Bloemfontein and Welkom campuses;
- having one-on-one meetings with direct reportees from Executive and Senior Management;
- engaging with the branch leadership of SASCO and the EFF Student Command;
- engaging with external partners;

- strengthening CUT's readiness to comply with the OHS Act;
- enhancing the safety of staff and students at both campuses;
- implementing special projects related to the Human Project;
- realigning the Resources and Operations Division; and
- addressing the litigation and claims against CUT (of the original 20 claims of more than R100000, 11 were settled, and three were combined into one. Thus, seven litigation and claims cases remain).

The following revived or first initiatives for CUT were recorded during the year:

- policy and procedures for the Vice-Chancellor's excellence awards for support staff;
- a whistle-blowing and ethics hotline;
- availing university funds to strengthen the feeding scheme for poor students at both campuses (previously, only third-stream income was used for the feeding scheme);
- the first phase of the implementation of an Integrated Security System;
- approval by Senate of a University Languages Committee;
- the appointment of the first Black female as Dean of the Faculty of Humanities;
- the accreditation of the first two off-campus student accommodation service providers;
- the appointment of Senior Managers as Section 16.2 appointees under the OHS Act;
- the first Mancom meeting held at the Welkom campus on 26 June 2017; and
- the first Exco of Council meeting held at the Welkom campus on 31 August 2017.

Governance and Strategic Management

In terms of the principal managerial and administrative achievements, the University remained steadfast in its quest to monitor its performance on the implementation of the 2017 Institutional Operational Plan (IOP), which was reviewed on a quarterly basis. The CUT Transformation Plan 2016 – 2020 is the guiding document used by Management to drive and monitor the transformation project at CUT. The development of a tracking tool to monitor the key transformation projects described in the Transformation Plan 2016 – 2020 was completed. An update on a number of transformation projects is included in this report.

Regarding managerial and administrative aspects, in 2017 there were interim arrangements to devolve the various sections of the Resources and Operations (ResOps) Division to Executive Managers. Furthermore, the number of vacancies that currently exist at Executive and Senior Management level has decreased during the year. A number of activities to enhance the teaching and learning, research and innovation, and community engagement practices at the University took place. Measures to strengthen partnerships and funding opportunities for CUT were also implemented. The relevant faculties and sections, in collaboration with CUT Innovation Services (CUTIS) and Executive and Senior Management, concluded a number of partnerships and agreements.

Related to administrative structures and resources, progress is reported on activities related to communications and marketing, branding, human resources, and the institution's facilities and infrastructure plans. The installation of Phase 1 of the integrated security system progressed well during 2017. Occupational health and safety is another critical element that has been attended to, as reported on. Addressing gender equity at Management level remains a challenge. In terms of equity targets, there is an under-representation of all the designated groups at CUT, with the exception of African females. Apart from White females, this under-representation is less than 1% in all cases.

The overall headcount enrolment was more than 18000, which is above the DHET's set target for 2017. This increase was mainly due to students being registered for one module only, and an increase in the BTech offerings due to a renewed demand by students as a result of the phasing out of these programmes by 2019.

The 2017 period under reporting was a successful time for CUT. Several special projects were implemented to further enhance the university. The report delves into the challenges facing the higher education sector in general, and CUT in particular, as well as our response to these challenges.

We have enhanced CUT as a true, fully fledged university of technology, focusing on innovative problem-solving and career-directed academic programmes, in addition to the basic responsibilities of a university, and leading the way in ensuring that our applied research and social and technological innovations operate to the benefit of the region and the country as a whole.

Achievements in terms of the plans, goals and objectives set

The University remained steadfast in its quest to monitor its performance on the implementation of the 2017 IOP, which was reviewed on a quarterly basis. The IOP 2017 was derived from the institution's consolidated strategic objectives and Key Performance Indicators (KPIs). Informed and shaped by CUT's Vision 2020, progress on the strategic objectives for 2017 was presented to the four Management Committee (Mancom) Planning Workshops of 2017, and was tabled at the four Council meetings of 2017. Performance is monitored using the four balanced scorecard perspectives, namely:

- systems, policies and processes;
- resources – human and financial;
- supplementary resources from stakeholders and partners; and
- quality learning and growth.

Notable progress was made in 2017. Some targets were exceeded, whilst others were not met. In 2018, we will continue to implement actions that will draw us closer to meeting our targets, and closely monitor progress.

Appointments at Executive and Senior Management levels

Council, at its meeting of 17 March 2017, appointed Prof. HJ de Jager as the new Vice-Chancellor and Principal of CUT for a five-year period, from 1 June 2017 to 31 May 2022. The inauguration of Prof. De Jager as CUT's new Vice-Chancellor and Principal took place at the Welkom campus on 20 June 2017, and at the Bloemfontein campus on 30 June 2017. Prof. De Jager was the Acting Vice-Chancellor and Principal from 1 October 2016 to 31 May 2017, during which period he was the substantive DVC: Research, Innovation and Engagement (RIE).

Council approved a proposal to retain the Resources and Operations (ResOps) Division, and the position of DVC: ResOps. The recruitment process commenced in November 2017. The interim arrangements to devolve the various sections of the Resources and Operations Division to Executive Managers, which were implemented with effect from 1 January 2017, remained for the rest of the year.

Only a few vacancies currently exist at Executive and Senior Management levels. At the beginning of the year, nine (33%) of the 27 positions at Executive and Senior Management levels were vacant. As at the end of 2017, five positions were filled, and two were realigned to lower levels, whilst two (7%) positions are still vacant.

The Transformation Project

The year 2017 was a year of several positive developments at CUT regarding laying the foundation for the transformation agenda. There was a greater commitment from all levels of Management and governance to make a concerted effort towards driving transformation; to motivate for transformation to be institutionalised and integrated into the normal day-to-day operational structures of the University; and for all staff and students to own the journey of change and innovation.

For great transformative initiatives to occur, a “disruption” of what is considered normal and accepted is required. A rare opportunity for the South African higher education sector arose when students almost brought the sector to a standstill – a moment that shifted and emphasised the crucial transformation-related focus areas of universities. The #Fees-Must-Fall and #Rhodes-Must-Fall campaigns, as well as the demand for the insourcing of staff, which took place in 2016, challenged the public higher education sector to rethink its approaches to activities in 2017. Universities were forced to think deeper and more critically about matters pertaining to access and success; curriculum offerings and “decolonising the curriculum”; and the general functioning of managerial and governance structures in support of this renewed transformation agenda. These resulted in serious, but worthwhile, financial strain being placed on the university sector.

There was a moratorium on the annual increase of fees in 2016 and 2017, whilst a Fees Commission was established to investigate and provide recommendations in a report, which was released towards the end of 2017. This situation left the higher education sector in a space of uncertainty, and universities had to adjust to the changing times. CUT did its part, made the necessary adjustments, and invested more energy into driving its transformation agenda.

For CUT, the year 2017 was devoted to fully implementing the CUT Transformation Plan 2016 – 2020, and deepening the university’s commitment to change and continually measure impact. The CUT

community understood that a common vision was required to keep momentum and focus; hence, the following definition of the term “transformation”:

“Transformation is a dynamic, continuous process of change and adjustment that impacts on all facets of university life, as encapsulated in the three missions of a university, and all attendant policies, systems and practices that constitute the day-to-day life of a university. It is also the intelligent design of the university’s processes, engagements and activities, such that students and staff are encouraged, supported and stimulated through participation to become more competent, accepting of difference, caring and engaged citizens of the university, and society as a whole.”

In March 2017, a crucial process was initiated at the CUT Council meeting, which unlocked the university’s energy and focus on transformation. As transformation is a Council matter, it was important for the highest decision-making body of the university to conceptualise all transformation aspects. From there, the Vice-Chancellor and Principal investigated the possibility of establishing a **dedicated Office for Transformation**, to be operational as from 1 January 2018, which Office would be funded from the Strategic Fund. The Chairperson of Council and Executive Management were consulted on the matter, in order to determine the best and most cost-effective option to follow, going forward.

Our strategic focus was on the following ten transformation imperatives, as indicated in the CUT Transformation Plan 2016 – 2020:

- student and staff equity and redress;
- diversity and inclusivity, discrimination and racism;
- institutional culture and climate;
- language policy matters;
- curriculum transformation;



● Lloyd Cele performing at CUT's UNITE launch.

- Programme and Qualification Mix (PQM);
- teaching and learning;
- student learning support;
- staff development and support;
- research and development; and
- community engagement.

Furthermore, a new set of indicators is used by the DHET to track progress in terms of monitoring and evaluation. These indicators include monitoring and accountability; governance; institutional culture; language; staff development and equity; curriculum reform; student support; students and staff with disabilities; complaints; and collaboration. CUT has made significant progress in dealing with most of the key questions, which progress was reported to the DHET in June 2017.

For the implementation of transformation projects at CUT, and to secure a united effort in achieving all CUT's strategic goals, the Unit for Transformation and Constructive Engagement (UNITE) was launched on 22 March 2017. UNITE aims to be one of the country's leading projects in the field of conflict mediation, particularly as it relates to the quest for justice, peace and reconciliation within the higher education sphere. It seeks to help prevent and resolve conflict, and to alleviate the suffering of those affected by violence and the lack of transformation. Its values are those that foster integrity, professionalism and respect for diversity in all areas of work, and the unit subscribes to the core humanitarian principles of impartiality and operational independence. These values and principles guide UNITE's activities, and are fully aligned with the university's identity, values and principles. The strengths of UNITE include the ability to conduct mediation at leadership level for parties in conflict; political independence and impartiality; rapid, flexible responses; the effective management of discreet processes; readiness to support other lead mediators; relationships with high-level networks, particularly in Africa; creativity; and a willingness to take risks for the sake of transformation.

Human Resources

The Vice-Chancellor's Excellence Awards Function was held on 16 November 2017. For the first time, the newly approved policy and procedure for Vice-Chancellor's Excellence Awards to support services employees were implemented, and both academic and support services staff received awards. The following categories were applicable to support staff: Senior Management, Middle Management (post levels P4 to P6); Junior Management Specialist (post levels P7 to P9); Specialist Supervisor (post levels P10 to P12); Administrative Staff (post levels P13 to P18); and Security Staff, Cleaners and Gardeners (post levels P13 to P18).

Council approved the Human Resources structure, including three additional positions. The new structure would enable the implementation of the strategies laid out in the integrated talent management policy, as form follows function. The changes to the HR administration function have been completed, with an internal applicant being promoted. Two internal HR consultants are on an accelerated development programme. The vacant positions of Talent Management Specialist and Employee Relations Specialist have also been successfully filled.

The restructuring of the Finance Section was concluded during the year under review. Finance Section staff are being developed to ensure the streamlining of processes, as well as to bring efficiency to the system.



- Winners in the Innovation award category, from left: Prof. Alfred Ngowi, Acting Deputy Vice-Chancellor: Research Innovation and Engagement; Mr Jacques Combrinck, Lecturer: Mechanical and Mechatronic Engineering; Prof. Willie du Preez, Professor: Faculty of Engineering and Information Technology; Mr Lebohng Masheane, Technical Assistant: Mechanical Engineering; Mr Johan Els, Project Engineer: CRPM, Mr Gerrie Booyesen, Director CPRM and Prof. Henk de Jager, Vice-Chancellor and Principal.

The performance cycle for 2017, including all the disputes, were finalised and implemented. Training on how to access and use S-Cubed for the 2017 assessments was conducted for employees at both the Bloemfontein and Welkom campuses. The mid-year reviews for 2017 were completed. The performance evaluation sessions for 2017 opened on 15 November 2017, and ran until the beginning of February 2018. Additional training was conducted for employees and supervisors at both campuses.

Management's relationship with the unions remained on a healthy footing, with frequent bilateral discussions contributing to building the relationship. Salary negotiations for 2017 were finalised, signed on 3 February 2017, and implemented. Certain matters contained in the agreement are being further consulted. Information packs, as per the unions' request, were supplied, and wage negotiations will be initiated soon. The Vice-Chancellor and Principal met with both unions during various meetings in 2017, and a number of matters that were raised at these meetings have been addressed. Management is grateful to the union leadership for their commitment to conclude the wage negotiations for 2018 in December 2017.

The first phase of the salary anomalies process, which included the setting of new salary scales, and bringing the salaries of employees that were below and above the relevant scale, to the relevant scale, was completed. PwC's report on salary anomalies, which was discussed with all the stakeholders, indicated that the CUT salary scales are in line with external benchmarks, and that no significant gender or race bias could be traced on any scale. A comprehensive analysis, based on qualifications and appropriate experience, and taking into account the remuneration scales of CUT, was completed as part of Phase 2 of the process. Council approved the implementation of Phase 2 of the salary anomalies process in two stages. All qualifying employees will receive half of the monthly amounts for which they qualified in 2017, in 2018. In the second stage, the addition to remuneration will be made in 2019. The details of the second stage will be finalised during the wage negotiations for 2019.

Adequacy of staff levels in critical areas

After the approval of the procedure on the retention of employees with scarce and/or critical skills, 33 applications were approved for the payment of a scarce skills allowance for a three-year period, from 2017 to 2019. In 2017, eleven promotions to Lecturer were approved by the relevant Faculty Boards, whilst the University Academic Appointments and Promotions Committee approved six promotions to Senior Lecturer, and Senate approved six promotions to Associate Professor. Furthermore, succession planning commenced with the successful appointment of the Deputy Director: Research Development and Postgraduate Studies.

By the end of 2017, 89 (10,6%) of the positions on the university's permanent staff establishment were vacant, compared to 15,5% for the same period in 2016. Certain critical areas, such as the filling of Research Professor positions and addressing gender equity at Management level, remain a challenge. However, strategies are in place to address these challenges during the course of 2018.

Table 4 provides a summarised comparison, in terms of percentages, of the progress made towards achieving the numerical goals for 2017, as well the numerical goals for 2018, for the entire university, since the previous report.



¹ Target vs. actual	AM	CM	IM	WM	AF	CF	IF	WF	FM	FF
Numerical goals 2018 (%)	34,9	3,1	0,8	9,7	32,5	3,8	0,7	12,5	1,4	0,6
Numerical target 2017 (%)	34,6	3,0	0,8	10,3	31,7	3,6	0,6	13,3	1,6	0,7
Actual headcount 2017 (%)	34,2	2,5	0,4	8,7	34,3	2,8	0,4	11,7	3,2	1,8
Gap between target and actual (%)	-0,36	-0,49	-0,42	-1,65	2,62	-0,79	-0,21	-1,52	1,67	1,15

AM: African Male

CM: Coloured Male

IM: Indian Male

WM: White Male

FM: Foreign National Male

AF: African Female

CF: Coloured Female

IF: Indian Female

WF: White Female

FF: Foreign National Female

Table 4: Equity targets vs. actuals in 2017

Equity targets in the workplace

The employment equity targets were set as per the University's Employment Equity Plan 2014 – 2018. In terms of the Employment Equity Plan 2014 – 2018, the numerical targets for 2017 are indicated in the figure below. These targets were set at the onset of the Employment Equity Plan, with the understanding that:

- the Commission for Employment Equity does not include Foreign Nationals in its Economically Active Population;
- Foreign Nationals and White males are considered to be part of the non-designated groups (as stipulated in the Employment Equity Plan); and
- whilst the Employment Equity Act does not require an employer to set targets for foreign nationals, CUT chose to do so, based on the headcount at the time the University's Employment Equity Plan was approved.

In terms of equity targets, as at November 2017, there was an under-representation of all the designated groups at CUT, except for African females. However, with the exception of African females, this under-representation is less than 2% in all cases.

Furthermore, strategies were implemented to address the under-represented areas during the course of 2017, including the refocusing of the SoAR programme to include key support services staff. A budget of R0.5 million has been availed from

the Strategic Fund for this purpose.

Compared to these targets, all four faculties are over-represented in terms of Foreign National males and females. In order to determine whether CUT is on track in comparison to the rest of the higher education sector, information in this regard was requested from 21 other universities in 2017. Of these universities, six indicated that they have not set targets for Foreign Nationals, whilst two have specific policies/guidelines in this regard, and another two use regulations that were issued by the Department of Home Affairs. The Employment Equity Committee has been requested to further discuss the matter, and to develop a submission to Mancom and the Human Resources Committee regarding the overall target for Foreign Nationals at CUT, departmental targets for Foreign Nationals at CUT, and the utilisation of Foreign Nationals for skills transfer and contractual obligations pertaining to the academic project at CUT.

Figure 1 provides a graphical presentation, in terms of percentages, of the progress made towards achieving the numerical goals for 2017, for the entire CUT.

From figure 1, it is clear that, of the designated groups, only African females were over-represented as at the end of 2017, compared to the target set for the year. However, of the other under-represented designated groups, only White females show a significant gap. Despite this, there is no reason to think that the university would not be able to achieve its numerical targets for the year 2018.

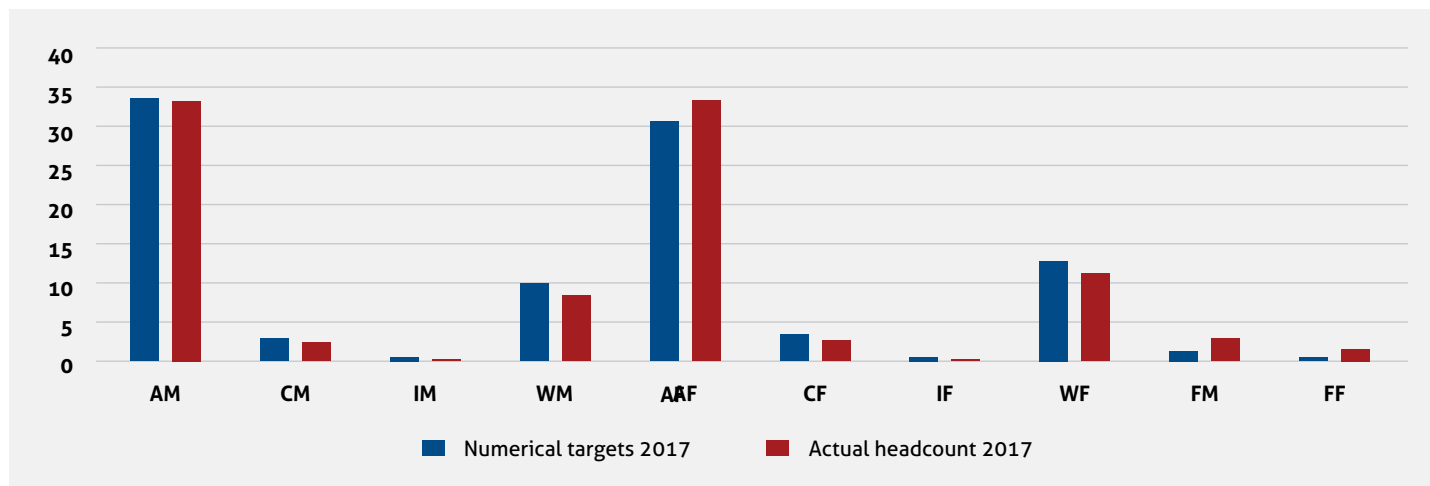


Figure 1: Equity targets vs. actuals in 2017 (%)

Student and staff equity and redress

CUT is cognisant of the need to balance staff and student representation within its community. Although an effort has been made to broaden access, and to implement the support mechanisms that are necessary for staff members and students to be successful, much more is yet to be done. In 2017, the designated categories of previously disadvantaged groups (Blacks, women, and people with disabilities) enjoyed greater focus.

It has to be noted, however, that the limited academic development and support mechanisms available to the students remain a serious concern. A mind-shift is required for the university to make a real and visible impact on the student throughput (i.e. graduation) rate, and on the progression of staff - especially women and people with disabilities - up the leadership hierarchy. Critical conversations with students and staff will be held in this regard in 2018, in order to determine where the challenges are, and to work together to improve systems and attitudes.

IMPROVE STUDENT EQUITY

The student demographic is largely Black. Many Black students have succeeded in accessing the university, and their participation in all areas of student life is satisfactory. However, the low throughput rates amongst Black students, and the extended time they require to complete a qualification in comparison to their fellow White students, remain a concern.

Also important to note is the need to increase the number of Coloured, Indian, White and international students at CUT, as stipulated in the CUT Academic Plan. A concerted effort has to be made to keep the student body balanced, as racial diversity is important for learning and development. The headcount and full-time equivalent (FTE) percentage of students in Science, Technology, Engineering and Mathematics, as well as the headcount percentage for African students, are indicated in Figure 2.

CUT leadership has processed this concern, and has committed to strengthen the academic support and development mechanisms for the year 2018. Acknowledging that many of the Black

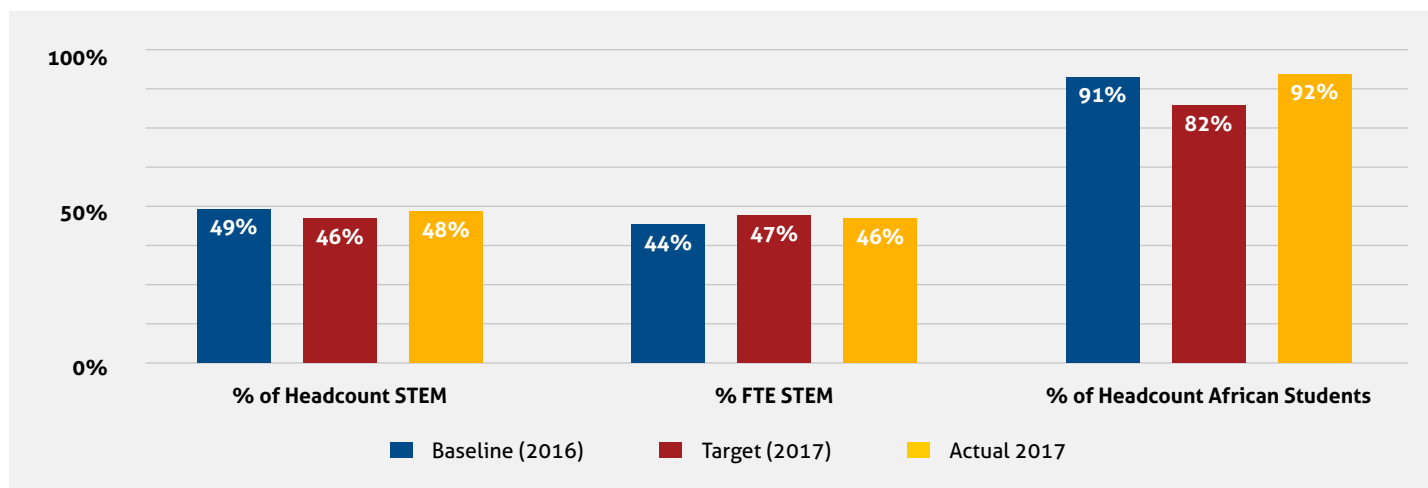


Figure 2: Headcount and FTE percentage of STEM students, and headcount percentage of African students for 2017

students who enroll at CUT come from rural, poor socio-economic backgrounds, and a schooling system that has not sufficiently prepared them for tertiary education, the university has taken the responsibility to invest great effort into tracking students' performance, and creating early warning systems, which would ensure that students who are at risk of failing their courses are identified timeously, and are given the kind of support they require in order to succeed.

IMPROVE STAFF EQUITY

CUT's Employment Equity Plan 2014 – 2018 was approved by the Department of Labour. The Plan is implemented and monitored on an annual basis, with reports being submitted to Council and the Department of Labour. It is exciting to report that CUT has been successful in attracting highly qualified staff in the different academic and administrative fields.

Amongst the Black women who joined CUT in senior positions in 2017 is Prof. NN Feza, the Dean of the Faculty of Humanities. With her seniority and expertise, there is no doubt that she is a

valuable addition to the academic leadership team. Furthermore, her appointment improved the representation of Black women on Mancom – three of the ten Mancom members are now Black females.

As much as there were successes in the university's recruitment and retention efforts during 2017, there were also challenges. As CUT is situated in the Free State, which is one of the poorest provinces of South Africa, and geographically far from the country's economic centres, attracting senior academic staff and administrative leaders is a challenge for the university. Although staff retention at CUT has been exceptional, the support systems require improvement. The university is committed to improve its support systems in order to ensure greater retention of staff, especially in scarce skills. In addition, in order to enable new staff to take off faster and to function independently, a structured programme, designed to provide onboarding support to both academic and administrative staff, is required. The first three months in a new position are crucial to ensure that a staff member is settled, and feels part of the system.

Diversity and inclusivity, discrimination and racism

CUT is committed to providing an enriching experience for all its students, faculties and staff by actively exploring and adopting new initiatives that will expand both the diversity and inclusivity of our campus community. We will achieve this objective by working collaboratively to create a living and working environment of openness and acceptance, in which people of all backgrounds, identities and perspectives feel secure and welcome.

Diversity is critical to the education of all students, as it broadens their exposure to people who represent, amongst others, different countries and nationalities; age groups; racial, ethnic, religious, and socio-economic backgrounds; mental and physical abilities; and sexual orientation and gender identities, amongst others.

Education within a diverse environment, with people who have opinions and perspectives that differ from one's own, helps to create a rich learning context, and prepares students for life in a complex, changing society. Furthermore, diversity enables enlightened research and discovery in a manner that is central to our mission.

During 2017, the university continued to foster and sustain an environment of respect and inclusion for staff, students and members of the communities we serve; creatively provided programmes and environments that embrace diversity and promote a broad acceptance of differences; remained steadfast in its efforts to ensure equitable access to our facilities, programmes, resources and services; and advanced our workforce by attracting and developing talented staff and students from diverse backgrounds.

Of particular note is the new mechanism that was developed to address complaints and whistle-blowing at CUT. The Whistle-blowing and Ethics Hotline came into operation on 1 September 2017, providing all staff and students with a facility to report confidential information without the fear of harassment or intimidation.

Financial Management and Sustainability

Given the current dynamics within the higher education sector, financial management is high on the agenda of Management. The university works hard to ensure the effective and efficient use of the limited funds at its disposal. In order to inculcate a culture of cost saving at CUT, a cost-containment workshop was held at the end of 2016, and some cost-containment measures have since been devised. These measures were divided into short-term (i.e. immediate), as well as medium- to longer-term measures.

The importance of policies in achieving the university's objectives in terms of financial management is acknowledged. Therefore, all outdated finance-related policies are currently being revised. The procurement and asset management policies were identified as the most critical policies to be revised, and the revision thereof has thus been prioritised. Updated versions of these policies were approved by Council in 2016. The latest promulgated Acts, as well as inputs from all the relevant parties, were incorporated into the updated policies.

CUT is a member of the Purchasing Consortium of South Africa (PURCO). In order to ensure that CUT benefits from the discounted buying power that PURCO enjoys as a consortium, as well as the associated annual rebates (share of profits), closer co-operation is forged with PURCO by means of frequent discussions.

The financial sustainability of the university is dependent on continuous funding from the DHET, NSFAS and other external sources. Almost 60% of the university's income is derived from subsidies and grants. For continued sustainability in the absence of an increase in the other income elements, the university has to ensure that the subsidy is increased by increasing full-time equivalent and output rates. As per the 2017 Mid-year Report, 110% of the target was achieved (12 730 FTEs vs. the DHET target of 11 549). The second-largest source of income is derived from tuition and other fees charged to students. The recoverability of the fees remains critical for the financial sustainability of the institution.

One major challenge that was experienced, was the change related to the daily food allowances of NSFAS students, which resulted in more than 6 000 NSFAS students already having depleted their 2017 allocations by June 2017. This was the main reason why Management had to allocate additional resources to the feeding scheme for poor students.

The NSFAS payments were extremely slow, due to changes in NSFAS' administration processes during 2017, which, amongst others, required an IT interface between CUT and NSFAS. This was not as effective as intended, and had an impact on the cash flow of the institution. To mitigate against this becoming a crisis, an alternative submission of information was negotiated with NSFAS, with a view of rectifying system problems in the future. Initially, students had not signed their loan agreements. The CUT Financial Aid staff did not have control over this. However, the university continued to pay all student allowances. This had a negative impact on the university's cash flow. Subsequently, NSFAS generated the agreements, and visited CUT to assist students with signing the agreements. To contain the problems around allowances, the university took a decision to pay the students the allowances, to allow them to finalise the academic year successfully. Through negotiations with NSFAS, an amount of R30 million was received in November 2017, with a commitment of further payments to follow soon.

The cost-savings initiative has contributed to the financial sustainability of the University, but this is not likely to be significant in the future, given the rising costs of running a university, as well as the ever-changing client expectations. The University has depended on the R340 million income from NSFAS, of which only R165 million has been received to date, mainly due to internal challenges at CUT. This remains a major risk for the University, and continuous engagements between the Vice-Chancellor and Principal, the CFO and NSFAS took place during 2017 to address this matter.

The State President of South Africa made a pronouncement on the feasibility of the provision of free higher education to the

poor and working class on 16 December 2017. In his statement, he indicated that the study fees of students who come from a household that earn a combined income of up to R350 000 would be fully subsidised. Funding will now take place through government grants instead of loans. At the beginning of 2018, there will be extensive collaboration between Vice-Chancellors, Universities South Africa (USAf) and the DHET to address the new developments, as well as internal engagements to plan for the 2018 registration period.

Changes in tuition fees and financial aid for students

The student protests in 2016 and 2017 resulted in government's commitment to an 8% increase in tuition fees. The student fees for 2017 increased with 8% from the prior year. Government made provision by way of a grant for missing-middle students. The 8% gap funding grant from government provides for increases in tuition and University-managed accommodation.

Consequently, the University received a missing-middle allocation of R1 1 349 055 for 2017, whilst an additional amount of R13 405 849 was received in 2018 for the 2017 qualifying students.

In 2017, the University allocated R30 025 223 towards student financial support, and received R82 539 351 from external donors.

The University received the normal annual allocation from NSFAS, and the funds were allocated as outlined in the table 5.

During 2017, NSFAS took over the responsibility of assessing the applications for funding eligibility, and provided a list of funded students to the respective universities. The process presented various unforeseen difficulties, which resulted in the University still receiving approved NSFAS-funded students for the 2017 academic year to date. *Inter alia*, students experienced challenges in the signing of loan agreement forms issued by NSFAS.

SUMMARY OF NSFAS ALLOCATION – 2017				
Funding category	Budget Allocation	Loan agreements signed to date	Amount received from NSFAS	No. of students funded
DHET general	R 69 367 852	R 54 249 751		1 986
DHET returning	R 341 491 635	R 202 686 392		8 536
DHET disability	R 77 317	R 77 317		2
Funza Lushaka	R36 915 000	R 35 887 500	R 35 040 105	503
Natskills	R 11 105 228	R 10 642 447		153
Normal allocation	R 422 078 947	R303 543 407	R 35 040 105	10 282

Table 5: Allocation of NSFAS funding 2017

NSFAS provided a general upfront payment for the normal NSFAS DHET allocation of R158 607 323.00 for the 2017 academic year. A further R26 080 470.00 was received from NSFAS during 2017 in respect of outstanding 2016 NSFAS claims.

Despite students not having accepted their loan agreements in the 2017 academic year, NSFAS agreed to pay the University, subject to the loan agreement forms being signed in 2018. In addition to the normal allocation from NSFAS, the University also received restricted funds to assist qualifying students in the following categories:

- DHET Historic Debt (2013 to 2015) Fund: Students who were approved for NSFAS funding in 2013 to 2015, but whose funds were not received during that period. The University could only claim for students who were on the approved list from the DHET.

Furthermore, NSFAS also awarded SETA bursaries to students, as indicated in Table 7.

The 2016 #Fees-Must-Fall and Free Education campaigns presented a threat to CUT for the 2017 academic year. This threat was fully mitigated by government, who provided a grant equivalent to the amount of the 8% fee increase. Students with a household income of less than R600 000 qualified for this grant. The renewed 2017 #Fees-Must-Fall campaign, as well as the call for free education in 2018, presented an even greater threat, especially after the President's announcement of fee-free education in December 2017.

The CUT strategic intention to increase its focus on seeking alternative funding through third-stream income has not been realised, mainly because the clients on which this income depended also experienced financial constraints, which

SUMMARY OF NSFAS-RESTRICTED ALLOCATIONS – 2017	
Funding category	Amount received from NSFAS
Historic debt (2013 – 2015)	R1 320 117.00
National Skills Fund (NSF) funding	R3 634 466.00
Restricted allocation	R4 954 583.00

Table 6: Summary of NSFAS-restricted allocations for 2017

SUMMARY OF NSFAS ALLOCATIONS – 2017		
Category	Claims submitted to NSFAS to date	Amount received from NSFAS
Department of Military Veterans (DMV)	R2 727 765.00	R2 029 240.00
Truth and Reconciliation Commission (TRC)	R53 513.00	R0.00
TOTAL NSFAS SETAS	R2 781 278.00	R2 029 240.00

Table 7: SETA bursaries awarded by NSFAS in 2017

resulted in either delaying or scaling down the projects that were earmarked for 2017. However, there is an increased desire to fully explore available third-stream income opportunities going forward.

DATA AND INFORMATION MANAGEMENT

CUT is devoted to data integrity and upholding a proper Management Information System (MIS). Higher Education Data Analyser (PowerHEDA)-integrated academic planning processes; a Data Quality Committee; standardised reports; and a newly developed first-time entering student registration monitoring dashboard are in place. The analysis of the performance led to improved procedures for the first-time entering student quota planning, in an attempt to address the concerns.

The policy and procedure on the Data Management Framework, which addresses the important quality and stewardship of CUT's data, were developed and are in the final stage of improvement. The VALPAC submission for 2016, in accordance with the collection specifications for subsidy purposes, was concluded on 31 July 2017, whilst the VALPAC submissions scheduled for 2017, in accordance with the collection specifications for subsidy purposes, were concluded on 30 October 2017. Monitoring reports were produced as per the approved time frame. The performing of validation runs for the data on CUT's systems is a continuous process. Although co-operation between various sections/units/departments to secure quality data information flow remains CUT's biggest challenge, work to this end is progressing well.

The internet bandwidth for the campus was upgraded to a 10 GB link in order to provide staff and students with faster access to online resources. International bandwidth was improved by 15%. Access to cloud-based services such as Office 365 has been made available to all students, and 80% of staff. The remainder of staff access will be implemented in 2018.

ITS SYSTEM

The university has an Integrated Tertiary Software (ITS) System, with the ITS Integrator V3 System being used for administrative purposes. The system allows 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 services.

The online student administration functionality, which was implemented in 2012, is continuously being refined in order to ensure additional functionality and wider utilisation thereof. In 2015, the online application system was implemented, and auto-progression was tested for implementation. The online application system was further refined in 2016, with it being made available externally to the university after successful implementation on campus. Furthermore, the auto-progression system was implemented in 2016, and was refined during 2017. The addition of online payments, integrated with the application system, was initiated in 2017, for implementation during 2018. A system for timetabling, Celcat, was installed, and will be implemented in full in 2017. The Celcat System was tested with the relevant business owner, and basic configuration

was done. The system was implemented for functional use from the second semester of 2017. This system links with the ITS System, and allows for the integrated timetabling of all venues and offerings.

MANAGEMENT INFORMATION SYSTEMS (MIS)

For purposes of information management, CUT implemented the Higher Education Data Analyser (HEDA) System, which uses data sourced from the Higher Education Management Information System (HEMIS), for submission to the Department of Higher Education and Training (DHET). The HEDA dashboards provide a visual display of key performance indicators (KPIs) and metrics on a single, interactive screen. In 2017, CUT updated it to PowerHeda. The Daily Monitoring Dashboard was completed, and will be implemented during the first semester of 2018 to monitor enrolments. The dashboard has additional information that reflects applications and admissions, as well as actual enrolments and targets for first-time entering undergraduate students. The dashboard is assisting all the faculties to monitor enrolments against targets.

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 also used the ordinary HEMIS subsystem on the ITS System for statutory reporting on various aspects of the university's core business, as well as other non-academic support services functions. Statistical reports and information on the institution's performance in relation to its targets are published periodically in our Size-and-Shape Monitor and Student Performance Monitor.

The university recognises the importance of authentic information. Hence, in 2017, the Data/Statistics Committee, which was established in 2016 for purposes of overseeing the quality of operational data, standardisation of information for decision-making, and streamlining the use of information across CUT,

successfully concluded the development and implementation of a Data Management Framework.

Significant risks

Management is continuously developing and enhancing its risk and internal control procedures in order to improve the methods for identifying, controlling and monitoring risks that may affect the institution. The institution primarily focuses on addressing the risks that are inherent in, or that may affect the university's strategy and objectives, and the execution thereof.

Management has consistently been implementing the relevant controls to mitigate these, and to ensure that the institutional plan and goals are achieved. The following are the most significant risks faced by the university in 2017:

Financial risk

Finances are critical to the sustainability of institutions. Developments in higher education have compromised the resources available to achieve the institutional strategic and operational imperatives. The reduction of public funds in various forms required efforts to be made to reduce costs, and to raise third-stream income across the university. See Financial Management and Sustainability, and the Financial Health/Viability of the University Sections of this report for more detailed information.

Fraud risk

The risk of fraud is considered significant in organisations due to the pervasive nature thereof. Furthermore, resources may be misappropriated, which may adversely affect the sustainability of the institution. This risk requires specific attention, as it may affect other objectives and targets of the institution. Any act of dishonesty or course deception is taken seriously, and dealt with on an ongoing basis. In response to the recommendations made on the management of fraud in the past, improvements to the ethics and governance policies of the University were made in 2017, and the utilisation of the University's ethics hotline is encouraged.

Council, Senate and Institutional Forum

COUNCIL

The CUT Council is duly constituted in accordance with the provisions of the Higher Education Act (Act No. 101 of 1997), as amended (also referred to as “the Act”), and in terms of the CUT Statute. 60% of the members are independent of the University, and possess the knowledge and experience relevant to the objectives and governance of CUT. For example, 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 serve a three-year term of office, whilst others serve a four-year term of office on Council. The Executive Committee (Exco) of Council serves as the Nomination Committee of Council, and as such assists with the process of identifying suitable members of Council.

The purpose of this section is to account for Council’s actions and achievements in the governance of CUT during the 2017 academic year. In making decisions, Council took into consideration the articulated mission, objectives, strategies and plans of CUT. This is an integrated report that conveys adequate information about the operations of CUT, and its sustainability and financial reporting. Detailed accounts, however, are given in the remaining chapters of the report. In essence, this section provides a self-assessment of the CUT Council – the extent to which the annual performance objectives approved by Council for the reporting year were attained, including the attendance of meetings by Councillors, and the expertise of Councillors who chair the various standing committees of Council.

REMUNERATION OF COUNCILLORS

In October 2015, Council adopted the following definition of an honorarium: “an ex gratia payment (i.e. a payment made without the giver recognising himself as having any liability or legal obligation) made to a person for his or her services in a voluntary

Reputational risk

Reputational risk adversely affects the reputational capital of the institution. Negative publicity compromises the perception of stakeholders, and, therefore, possible engagements. Hence, recognition of the sub-event is required. As a significant risk, it was categorised accordingly and managed over time, in order to identify threats and opportunities to enhance the institution’s reputation and brand positioning.

Compliance risk

These risks are related to compliance with the relevant legal and regulatory provisions that affect the institution. All the regulatory requirements of the university were identified, and, as a collective, form the Regulatory Universe of the institution. The compliance function will continue to appropriately monitor adherence to these, and to ensure that the risk of non-compliance is adequately managed.

capacity". Informed by this understanding, external Council members received honoraria approved by the Remuneration Committee of Council. The quantum of the remuneration was based on the results of a benchmarking exercise that was conducted with other higher education institutions (HEIs). Furthermore, Council accepted the Council on Higher Education (CHE)'s recommendation that the in-kind payment of Councillors should not be allowed, as it constitutes a potential conflict of interest. Hence, the following in-kind benefits were withdrawn: study benefits for Council members and their families, and special tariffs for the rental of university venues. The university

pays the CUT-related travel and accommodation expenses of external Council members. The honoraria paid to external Council members for attending each scheduled meeting in 2017 are listed below.

Chairperson of Council	R2200
Deputy Chairperson of Council	R1900
Member of Council	R1600
Chairperson of a committee of Council	R1900
Member of a committee of Council	R1600

The following section summarises the activities of Council's standing committees during 2017.

STANDING COMMITTEES OF COUNCIL

The composition of Council, the length of service, and the age of each Councillor; the standing committee(s) on which they served; the number of Council and standing committee meetings held; and Councillors' respective attendance of these meetings in 2017, are reflected in table below.

NAME	CURRENT TERM OF OFFICE	PREVIOUS TERM(S) OF OFFICE	AGE		COUNCIL WORKSHOPS AND MEETINGS ATTENDED IN 2017					
					2017-03-17	2017-06-09 (Workshop)	2017-06-10	2017-09-15	2017-11-24 (Workshop)	2017-11-25
Mr MM Mohohlo (Human Resources Management)	Mar. 2015 to Mar. 2018	Mar. 2011 to Mar. 2015	71	Chairperson of Council Chairperson of Exco of Council Chairperson of the Remuneration Committee of Council	✓	✓	✓	✓	*	*
Ms KE Dilotsotlhe (Education)	Mar. 2015 to Mar. 2018	Mar. 2011 to Mar. 2015	55	Deputy Chairperson of Council	✓	✓	✓	✓	✓	✓
Mr N Dolopi (Ministerial Appointee)	Mar. 2015 to Mar. 2018		44		✓	*	✓	✓	*	*
Ms N Nxesi (Ministerial Appointee)	Nov. 2014 to Nov. 2017		57		✓	*	*	✓	*	*

NAME	CURRENT TERM OF OFFICE	PREVIOUS TERM(S) OF OFFICE	AGE		COUNCIL WORKSHOPS AND MEETINGS ATTENDED IN 2017					
					2017-03-17	2017-06-09 (Workshop)	2017-06-10	2017-09-15	2017-11-24 (Workshop)	2017-11-25
Mr L Hume (Ministerial Appointee)	Nov. 2014 to Nov. 2018		50		#	#	#	✓	✓	*
Adv. RR Dehal (Ministerial Appointee)	Mar. 2015 to Mar. 2019		61		#	#	#	*	*	✓
Mr M Matlala (Ministerial Appointee)	Dec. 2017 (end date still to be determined)		62		#	#	#	#	#	#
Dr SM Seane (Business)	Mar. 2014 to Mar. 2018	Mar. 2011 to Mar. 2014	63		✓		✓	✓	*	*
Dr JR Mellor (Technology)	Mar. 2015 to Mar. 2019	Mar. 2011 to Mar. 2015	55	Chairperson of the Finance Committee of Council	✓		✓	≠	≠	≠
Ms M Naidoo-Vermaak (Technology)	Until March 2019		43		#	#	#	*	*	*
Mr L Sebola (Technology)	Mar. 2017 (end date still to be determined)		39		✓		✓	✓	✓	✓
Mr MJ Besnaar (Finance)	May 2016 to May 2019		42		✓		✓	✓	✓	*
Mr RG Nicholls (Finance)	Sept. 2017 to Sept. 2021	Sept. 2013 to Sept. 2017	69	Chairperson of the Finance Committee of Council	✓		✓	✓	✓	✓
Mr HHvM Oelrich (Agriculture)	Dec. 2015 to Dec. 2018	Nov. 2011 to Dec. 2015	79	Chairperson of the Investment Committee of Council	✓		✓	*	*	✓
Dr NB Chinje (Marketing)	Sept. 2014 to Nov. 2018		43		*	*	*	≠	≠	≠
Mr CM Phehlukwayo (Audit and Risk/ICT Governance)	May 2016 to May 2020		51	Chairperson of the Audit and Risk Committee of Council	✓		✓	✓	#	✓
Dr GA van Gensen (Alumni Association)	Jun. 2015 to Jun. 2015		55		✓		✓	✓	*	✓
Mr I Osman (Expert in local/regional development and governance)	Nov. 2017 (end date still to be determined)		61		#	#	#	#	✓	✓

NAME	CURRENT TERM OF OFFICE	PREVIOUS TERM(S) OF OFFICE	AGE		COUNCIL WORKSHOPS AND MEETINGS ATTENDED IN 2017					
					2017-03-17	2017-06-09 (Workshop)	2017-06-10	2017-09-15	2017-11-24 (Workshop)	2017-11-25
Ms MNW Mosuwe (Prominent person who would be able to add value to the Welkom campus)	Nov. 2017		49		#	#	#	#	✓	✓
Vacant (Businessman or -woman from the Central region who will add business value to the university)					#	#	#	#	#	#
Prof. HJ de Jager (Vice-Chancellor and Principal)					✓	✓	✓	✓	✓	✓
Prof. AB Ngowi (Acting DVC: Research, Innovation and Engagement)					✓	✓	✓	✓	✓	✓
Prof. DP Ngidi (DVC: Teaching and Learning)					✓	✓	✓	✓	✓	✓
Vacant (DVC: Resources and Operations)										
Prof. MLE Monnapula-Mapesela (Senate)					✓	✓	✓	✓		✓
Prof. FE van Schalkwyk (Senate)	Jun. 2015 to Jun. 2017				✓	*	*	#	#	#
Prof. JFR Lues (Senate)	Sept. 2017 to Sept. 2019				#	#	#	*		✓
Mr KE Moremi (Institutional Forum (Acting))					✓	#	#	#	#	#
Mr T Masoeu (Institutional Forum)					#	✓	✓	✓		✓
Ms D Mkhize (Academic staff member)	Jun. 2016 to Jun. 2018				✓	✓	✓	✓	✓	✓

NAME	CURRENT TERM OF OFFICE	PREVIOUS TERM(S) OF OFFICE	AGE	COUNCIL WORKSHOPS AND MEETINGS ATTENDED IN 2017					
				2017-03-17	2017-06-09 (Workshop)	2017-06-10	2017-09-15	2017-11-24 (Workshop)	2017-11-25
Cllr Dr MJ Nkonoane (Non-academic staff member)	Nov. 2015 to Nov. 2017			✓	✓	✓	✓	✓	✓
Cllr T Ngozo (SRC President: Bloemfontein Campus)	Jan. 2017 to Dec. 2017			✓		✓	✓	✓	✓
Cllr M Mandries (SRC President: Welkom Campus)	Jan. 2017 to Dec. 2017			✓	✓	✓	✓	✓	✓

Table 8: Summary of Council's composition and Councillors' meeting attendance

Explanation of keys				
Present	Absent with apology	Absent without apology	Not yet a member	No longer a member / resigned
✓	*	-	#	≠

The undermentioned committees were approved by Council to execute the above authority. Since the beginning of 2014, all committees have been operating under constitutions that were aligned with the stipulations of the King III Report.

During 2017, the terms of reference of standings committees of Council were revised in order to align them with the revised CUT Statute, the amended Higher Education Act, the King IV Report, and the Regulations for Reporting by Public Higher Education Institutions.

Council, at its meeting of 25 November 2017, approved the revised terms of reference of the following committees of Council: Exco of Council, Remuneration Committee (Remco), Human Resources Committee (HRC), and the Planning, Finance and Resources Committee (PFRC). The terms of reference of one standing committee of Council will be tabled for approval at the Council meeting of 23 March 2018.

The Finance Committee of Council

The Finance Committee attends to finance-, planning- and resource-related matters. Amongst others, the committee recommends CUT's annual operating and capital budgets to Council for approval, and monitors performance in relation to approved operating and capital budgets. The committee is responsible for assuring the financial health of the institution as a going concern, and for ensuring that the university's accounting information systems are appropriate, and that the staff complement is sufficient, not excessive, and suitably qualified to maintain the accounting records of the institution.

The committee 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

EXTERNAL COUNCILLORS	2017-02-12	2017-05-12	2017-08-18	2017-10-27 (workshop & meeting)
Dr JR Mellor (Chairperson until May 2017)	✓	*	≠	≠
Mr RG Nicholls (Deputy Chairperson until May 2017) (Chairperson from August 2017)	✓	✓	✓	✓
Mr HHvM Oelrich	*	✓	✓	✓
Ms KE Dilotsotlhe	*	*	✓	✓
Dr SM Seane	✓	✓	✓	*
Dr N Chinje	*	*	≠	≠
INTERNAL COUNCILLORS				
Prof. HJ de Jager (Vice-Chancellor and Principal)	*	✓	✓	✓
Prof. AB Ngowi (Acting DVC: Research, Innovation and Engagement)	✓	✓	✓	✓
Prof. DP Ngidi (DVC: Teaching and Learning)	*	✓	✓	✓
Ms D Mkhize (Academic staff member)	✓	✓	✓	✓
Cllr Dr MJ Nkonoane (Non-academic staff member)	✓	✓	*	✓
Vacant (DVC: Resources and Operations)				

Table 9: Councillors' attendance of Finance Committee meetings in 2017

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 until May 2017, and by Cllr Mr RG Nicholls as from August 2017. Four meetings and one workshop were held during 2016, one of which was a special meeting.

Audit and Risk Committee

The Audit and Risk Committee of CUT integrates the functions related to oversight of assurance and risk management. The committee exercises appropriate leadership and oversight to ensure that there is value creation at the university, and that its strategic objectives are achieved. The Audit and Risk Committee is a working committee of Council, with specific parameters within which to approve matters. Whilst Council

is responsible for setting principles, policies and parameters, the Audit and Risk Committee is responsible for overseeing the strategic implementation of such, and advising Council accordingly.

The Audit and Risk Committee's Terms of Reference provide for the Committee to consist of four independent and non-Executive members of Council who are not employees of CUT. The Chairperson and members of the Audit and Risk Committee are specialists in their fields, and have the necessary financial literacy and other skills and experience to execute their duties effectively.

The Audit and Risk Committee plays a critical role in the governance of the institution and in ensuring its sustainability. The Committee is required to provide independent oversight of, among others:

- the effectiveness of the organisation's assurance functions and services, with particular focus on combined assurance arrangements, including external assurance service providers, and the internal audit and finance functions;
- the integrity of the Annual Financial Statements, and, to the extent delegated by the governing body, other external reports issued by the organisation;
- risk governance, or adding it to the responsibilities of another dedicated committee, as is appropriate for the organisation; and
- govern compliance with applicable laws and adopted, non-binding rules, codes and standards in a way that supports the organisation in its strive to be an ethical and good corporate citizen.

The committee has discharged its responsibilities regarding internal and external audits, risk management, compliance, and integrated reporting in an effective and efficient manner, in accordance with the expectations of Council, its Terms of Reference, the King IV Report, and relevant policies and regulations.

Table 10 summarises the qualifications and experience of the independent, non-Executive members of the Audit and Risk Committee:

Member	Highest qualification	Years of experience
Mr CM Phehlukwayo (Chairperson as of May 2016)	BCompt (Unisa); PGDA (Natal); CA (SA)	24
Mr MJ Besnaar (Deputy Chairperson as from August 2016)	PGDA (UCT); CA (SA)	15
Mr L Sebola	BEng Comp Hons (UP); MEng (UP)	20

Table 10: Qualifications and experience of independent Council members.

Representative from the Auditor-General's office, as well as from the university's internal and external auditors, attend the Audit and Risk Committee meetings as observers, and they have unrestricted access to the Audit and Risk Committee. The Vice-Chancellor and Principal, Chief Financial Officer and Chief Audit Executive/Chief Risk Officer are invited members of the committee. The committee operates in accordance with written Terms of Reference, which are approved by Council, and aligned with the King IV Report.

Consistent with its functions, the Audit and Risk Committee considered and resolved on the following key matters in 2017:

Evaluation of the independent external auditors	The Audit and Risk Committee approved the tool for the evaluation of the external auditors (RESOLUTION E ARC 1/17/04).
Appointment of a Chief Risk Officer and Chief Audit Executive	The Director: Risk Management and Strategic Projects, as the Chief Risk Officer (CRO), was appointed on a five-year contract. In the absence of a Chief Audit Executive (CAE), the Audit and Risk Committee resolved that the Vice-Chancellor and Principal or his/her designate should act as the CAE. This role was fulfilled by the Dean of Management Sciences at the beginning of 2017, and was then transferred to the Director: Risk Management and Strategic Projects when he commenced duty on 01 November 2017. The Risk Unit also comprises a Risk Specialist (RESOLUTION ARC 2/17/02).
Strategic Risk Assessment Workshop	A Strategic Risk Assessment Workshop was held on 24 November 2017. Its objective was to educate Councillors on CUT's Risk Appetite and Tolerance Levels Framework (RESOLUTION ARC 7/17/04). PricewaterhouseCoopers (PwC) was selected amongst the bidders to facilitate the workshop. PwC had previously assisted the university with the development of the framework, which contributed to the workshop.
Appointment of internal auditors	The Audit and Risk Committee recommended to Exco of Council the appointment of PwC as the internal auditors of the university for a five-year period. Council, at its meeting of 17 March 2017, approved the appointment of PwC for a three-year period, until December 2019, subject to an annual performance review.
Internal Audit Plan	The Audit and Risk Committee recommended the Internal Audit Plan 2017 to Council for approval. PwC implemented the Plan as from 22 May 2017 (RESOLUTION ARC 11/17/02).
Internal Audit performance review	The Audit and Risk Committee recommended that Management develop tools for the annual performance review of the internal auditors, and submit such tools to the next Audit and Risk Committee meeting. These tools were approved by the Committee (RESOLUTION ARC 4/17/02).
Computerised tool for monitoring progress on audit findings	The Audit and Risk Committee resolved that a computerised tool for monitoring progress on audit findings should be used. TeamCentral, a web-based programme to be used to track the status of audit findings, was procured.
Enterprise Risk Management Strategy	The Audit and Risk Committee recommended the Enterprise Risk Management Strategy to Council for approval (RESOLUTION ARC 8/17/02).
Updated Strategic Risk Mitigation Report 2017	The Audit and Risk Committee recommended the updated Strategic Risk Mitigation Report 2017 to Council for approval (RESOLUTION ARC 9/17/02).
Risk appetite and tolerance levels	The Audit and Risk Committee recommended CUT's risk appetite and tolerance levels to Council for approval (RESOLUTION ARC 13/17/02).
Annual Financial Statements	The Audit and Risk Committee is satisfied that the Annual Financial Statements for the year that ended on 31 December 2017 were fairly presented, and that appropriate accounting policies were applied, and accordingly recommended it to Council for approval.
Risk and compliance	The committee approved the Strategic Risk Mitigation Report for 2017, as well as CUT's Regulatory Universe, in order to enhance compliance and risk management. These were monitored on a quarterly basis (RESOLUTIONS ARC 10/17/05 and 13/17/05).
Ethical governance	The university previously had a whistle-blowing policy and a combined policy and procedure for ethical governance, management and operations. These regulatory documents were merged into an ethical governance policy and procedure for CUT. The committee recommended these to Council for approval (RESOLUTION ARC 16/18/01).

Table 12: The Audit and Risk Committee considered and resolved these key matters in 2017.

Enterprise Risk Management (ERM) statement

Council committed CUT to a process of risk management that is aligned to the principles of the King IV Report and the Higher Education Act (Act No. 101 of 1997). CUT continuously aspires to raise its level of risk management maturity, and implements new and sustainable initiatives in this regard. In line with good governance principles, Council governs risk in a way that supports the organisation in setting and achieving its strategic objectives. It appreciates that the University's core purpose, its risks and opportunities, strategy, business model, performance and sustainable development are all inseparable elements of the value creation process.

Management is accountable to Council for designing, implementing and monitoring the process of risk management, and the integration and embedding of risk management into the activities and culture of the university. The development of management structures that focus on certain key activities within the university continued. Of significance is the fact that the university appointed an institutional Chief Risk Officer in 2017.

Risk Management Model

The ERM Framework and related policies provide appropriate guidance in implementing an efficient and effective risk management culture and practices at the university. The Risk Management Model is consistent with best practice, and involves risk identification, assessment, control and monitoring and reporting.

University Management hosts a Strategic Risk Assessment Workshop annually, after which a Strategic Risk Register is compiled. In addition to the assessment of risks at strategic level, operational risks within divisions were assessed during the divisional risk assessment workshops that were held. The management and control of the risks identified at the workshops are integrated into the day-to-day activities of the university, and reported on accordingly.

The strategic risk assessment was conducted based on CUT's strategic objectives, and the events were identified against each strategic objective. The events were rated in terms of the impact and likelihood of their occurrence. The process included engaging in individual meetings with members of Management, as risk owners, to ensure that the quality of the ratings is enhanced, and that there is continuous improvement of the risk assessment process.

Risk identification and assessment remain an ongoing process within the university. The newly identified risks may be classified as "emerging risks", following completion of the risk registers. The leadership of the university focuses on mitigating the risks in the Strategic Risk Register and Divisional Risk Registers in the execution of the university's Strategic Plan and operational functions. Furthermore, the university implements mechanisms to capture emerging risks, which are brought to the attention of university leadership.

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.

The Investment Committee of Council

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

EXTERNAL COUNCILLORS	2017-05-17	2016-11-02 (cancelled)
Mr HHvM Oelrich (Chairperson)	✓	
Dr JR Mellor	✓	
Mr MJ Besnaar	✓	
INTERNAL COUNCILLORS		
Prof. HJ de Jager (Vice-Chancellor and Principal)	✓	

Table 13: Councillors' attendance of Investment Committee meetings in 2017

The Human Resources Committee of Council

The Human Resources (HR) 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 Cllr Dr GA van Gensen in 2017. Four ordinary, quarterly meetings; one workshop and two round-robin meetings on various human resources-related matters were held during the year.

EXTERNAL COUNCILLORS	2017-02-28	2017-05-17	2017-08-03 (workshop)	2017-08-29	2017-11-14
Dr GA van Gensen (Chairperson)	✓	✓	✓	✓	✓
Mr N Dolopi	✓	✓	✓	✓	✓
Ms N Nxesi	#	#	✓	✓	✓
INTERNAL COUNCILLOR					
Prof. HJ de Jager (Vice-Chancellor and Principal)	✓	✓	✓	✓	✓

Table 14: Councillors' attendance of HR Committee meetings in 2017

The Remuneration Committee of Council

The Remuneration Committee of Council deals with remuneration-related matters specifically mandated to them by Council; ensures that remuneration arrangements support the strategic objectives of CUT; and enables the recruitment, motivation and retention

of Executive Managers, whilst ensuring compliance with the requirements of regulatory and governance bodies; satisfying the expectations of stakeholders; and remaining consistent with the expectations of employees.

EXTERNAL COUNCILLORS	2017-01-30	2017-03-02	2017-04-11	2017-08-31	2017-11-08 (workshop & meeting)	2017-11-25
Mr MM Mohohlo (Chairperson)	✓	✓	✓	✓	*	*
Ms KE Dilotsotlhe	✓	*	✓	✓	✓	✓
Dr GA van Gensen	✓	*	✓	✓	✓	✓
Dr JR Mellor	*	✓	✓	≠	≠	≠
Mr RG Nicholls	#	#	#	✓	✓	✓
INTERNAL COUNCILLOR						
Prof. HJ de Jager (Vice-Chancellor and Principal)	✓	✓	✓	✓	✓	✓

Table 15: Councillors' attendance of Remuneration Committee meetings in 2017

The Executive Committee (Exco) of Council

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 Nominations Committee of Council. Exco of Council 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 Cllr Mr MM Mohohlo, Exco of Council held six meetings during 2017, two of which were special meetings.

EXTERNAL COUNCILLORS	2017-01-27	2017-03-02	2017-04-11	2017-05-23	2017-08-31	2016-11-08 (workshop & meeting)
Mr MM Mohohlo (Chairperson)	✓	✓	✓	✓	✓	✓
Ms KE Dilotsotlhe (Deputy Chairperson)	✓	*	✓	✓	*✓	*
Dr GA van Gensen	*	✓		*	✓	✓
Dr JR Mellor	*	✓	✓	✓	≠	≠
Mr RG Nicholls	#	#	#	#	✓	✓
Mr CM Phehlukwayo	✓	✓	✓	✓	✓	✓
Mr HHvM Oelrich	✓	*	✓	✓	✓	✓
INTERNAL COUNCILLOR						
Prof. HJ de Jager (Vice-Chancellor and Principal)	✓	✓	✓	✓	✓	✓

Table 16: Councillors' attendance of Exco of Council meetings in 2017

Matters of significance considered by Council

Council exercised its authority and power conscientiously and with success during the year under review, and fulfilled its responsibilities with regard to governance. During the four ordinary meetings and two workshops that were held, Council deliberated and took decisions on the principles of good governance. Members of Council observed the provisions of the CUT Code of Conduct and the policy on ethics that were approved by Council in 2014. Councillors acted in the interest of CUT, and when they had mixed feelings on a matter discussed by Council, they declared so explicitly, and recused themselves from the meetings for the duration of the discussion of such matters. All the resolutions taken by Council were recorded in a Resolution Register.

Council holds the Vice-Chancellor and Principal and the Executive Managers responsible for, *inter alia*, the university's strategy and Annual Performance Plan (APP). The university's performance in 2017 is detailed in Section 1 of this report.

The revised CUT Statute was approved by the then Minister of Higher Education and Training, Dr BE Nzimande, and was gazetted on 7 April 2017 (*Government Gazette, Vol. 622, No. 40772*).

Part 5.3 of the King IV Code recommends as follows:

"The governing body should ensure that its role, responsibilities, membership requirements and procedural conduct are documented in a charter, which it regularly reviews to guide its effective functioning".

A Council Charter was developed, and was approved at the Council meeting of 25 November 2017.

A brief overview of significant matters to which Council attended in 2017 is subsequently provided.

- a. Council approved the amended enrolment and efficiency targets for 2017 to 2019.
- b. Council approved the conferral of an Honorary Master's Degree in Business Administration upon Mr LL Mule.
- c. Council approved the conferral of an Honorary Doctorate in Business Administration upon Mr P Motsepe.
- d. Membership:
 - Council approved the re-election of Cllr Ms KE Dilotsotlhe as Deputy Chairperson of Council for a second term, until 31 March 2018.
 - The SRC President at the Bloemfontein campus, Mr T Ngozo, was endorsed as a member of Council for the term January 2017 to December 2017.
 - The SRC President at the Welkom campus, Mr M Mandries, was endorsed as a member of Council for the term January 2017 to December 2017.
 - Council endorsed the membership of Prof. MLE Monnapula-Mapesela as Senate member on Council for the term March 2017 to March 2019.
 - The term of office of the Chairperson of the Institutional Forum (IF) ended on 30 November 2016. Elections for a new Chairperson of the IF was held during the second term of 2017. The Acting Chairperson of the IF, Mr KE Moremi, who is the duly elected Deputy Chairperson of the IF, was endorsed as a member of Council until a substantive Chairperson of the IF was appointed.
 - Council approved the appointment of Cllr Mr L Sebola as an external member of Council on the IF.
 - Council endorsed the membership of Mr T Masoeu, the Chairperson of the IF, on Council for the term June 2017 to June 2019.

- Council approved the termination of Cllr Dr N Chinje's membership, due to her poor attendance of meetings.
- Council approved the appointment of:
 - Cllr Dr GA van Gensen as Chairperson of the Human Resources Committee;
 - Cllr Mr N Dolopi as Deputy Chairperson of the Human Resources Committee;
 - Cllr Mrs N Nxesi as member of the Human Resources Committee;
 - Ms M Naidoo-Vermaak in the Technology portfolio on Council; and
 - Cllr Mr RG Nicholls as Chairperson of the Finance Committee.
- Council approved the principle of an external Council member serving as a Trustee on the CUTIS Board.
- In terms of Section 27(4)(c) of the Higher Education Act, the Minister appointed Mr M Matlala, Mr L Hume and Adv. RR Dehal as Ministerial Appointees to the CUT Council. Council approved that:
 - Mr L Hume serve the remainder of Adv. T Masuku's term of office, namely until November 2018;
 - Adv. RR Dehal serve the remainder of Adv. MB Matlejoane's term of office, namely until March 2019; and
 - the remainder of Cllr Prof. T Gutuza's term of office should lapse, after which Mr M Matlala's appointment as Ministerial Appointee should commence as from 1 December 2017.
- Council accepted the membership of Prof. JFR Lues as Senate representative on Council for the term September 2017 to September 2019.
- Council approved the appointment of the following members to Council:
 - Mr I Osman as the expert in local/regional development and governance; and
 - Ms MNW Mosuwe as a prominent person who would be able to add value to the Welkom campus.
- Council approved the appointment of:
 - Cllr Mrs N Nxesi (Ministerial Appointee) for a second term of office (from November 2017 to November 2020), subject to the Minister's approval;
 - Cllr Mr N Dolopi (Ministerial Appointee) for a second term of office (from March 2018 to March 2021), subject to the Minister's approval; and
 - Cllr Mr RG Nicholls (Finance portfolio) for a second term of office (from September 2017 to September 2021).
- Council agreed that the terms of office of Cllrs Mr MM Mohohlo, Dr SM Seane and Ms KE Dilotsotlhe should not be renewed for a third term.
- Council approved the appointment of Cllr Mr CM Phehlukwayo as Chairperson of Council for the period March 2018 to March 2021.
- The former Minister of Higher Education and Training reappointed Cllr Mrs N Nxesi as Ministerial Appointee on the CUT Council for a second term of office.
- The term of office of Cllr Dr MJ Nkonoane, representative of the non-academic staff members on Council, came to an end.
- Council approved the appointment of Dr GA van Gensen to the Marketing portfolio on Council. This will be Dr Van Gensen's second term of office on Council.
- Council approved the appointment of Mr SM Rantso as a businessman from the Central region who could add business value to the university.

Council had previously resolved that they should be externally appraised on a three-year basis. The Institute of Directors Southern Africa (IoDSA) was appointed to facilitate the Council self-appraisal process. The report on the evaluation was discussed at the Council Workshop of 9 June 2017.

The Finance Committee recommended the following planning-, finance- and resource-related matters to Council for approval:

- revised Headline Budget 2017 to 2019. Management's reports on financial performance for 2017 were presented to Council on a quarterly basis, for noting purposes;
- Institutional Operational Plan (IOP) for 2017. Progress reports on the IOP 2017 were presented to Council on a quarterly basis, for noting purposes;
- the reduction of the 2018 application fee from R230 to R100;
- the revised structure of the Communications and Marketing Section;
- the following 22 new positions, which positions will become part of CUT's permanent staff establishment:
 - 2 x Lecturers in Civil Engineering;
 - 1 x Farm Manager;
 - 1 x Farm Labourer;
 - 1 x Technical Assistant in Life Sciences;
 - 2 x Lecturers in Education and Professional Studies;
 - 1 x National Research Foundation (NRF) Officer;
 - 1 x Project Engineer for the Centre for Rapid Prototyping and Manufacturing (CRPM);
 - 1 x Work-integrated Learning (WIL) Co-ordinator;
 - 1 x Institutional Planning Co-ordinator;
 - 1 x Manager: Institutional Regulatory Code (IRC) and Compliance;

- 1 x Academic Administration Systems Manager;
- 1 x Assistant Residence Manager;
- 2 x Supervisors – one for Gymnos and one for the new residence;
- 1 x Wellness position (Welkom campus);
- 1 x Specialised Skills Development Facilitator (SDF);
- 1 x Human Resources Officer;
- 1 x Training Officer;
- 1 x Travel Office Co-ordinator; and
- 1 x Assistant Travel Officer.

Council is responsible for approving the naming of physical and academic entities such as buildings, sports facilities, gardens, rooms, streets, ornamental structures, or any other identifiable entity. The following proposed name changes were approved:

- that the street in front of the Petrus Molemela Building be named "Senate Street";
- that the street between the Boet Troskie Hall and the Petrus Molemela Building be named "Council Street";
- that the space in front of the Bethuel Setai Library and Information Services (LIS) Building be named "Esibayeni";
- that the residential Block B at the Welkom campus be named "Unity House";
- that the residential Block C at the Welkom campus be named "Maya Angelou House";
- that the residential Block D at the Welkom campus be named "Ikhaya Lethu House";
- that the residential Block E at the Welkom campus be named "Protea-East House";
- that the residential Block F1 at the Welkom campus be named "Protea-West House";

- that the residential Block G at the Welkom campus be named “Maipato Makatsane House”;
- that the LIS Building at the Welkom campus be named “Clement Tsehloane Keto Library and Information Services”;
- that the Academic Student Centre at the Welkom campus be named the “Thutong Building”.
- that the Teacher Education Building be named the “Tataisong Building”;
- that the Teacher Education Building Extension be named the “Kopanong Building”;
- that the Management Sciences Building be named the “Petrus Molemela Building”;
- that the new Engineering Building be named the “Ya Rona Building”;
- that the Dirk Coetzee West Wing be named the “Ellen Khuzwayo Building”;
- that the LIS Building at the Bloemfontein campus be named the “Bethuel Setai Library and Information Services Building”;
- that the main entrance street to the LIS be named the “Alumni Practuandi Street”;
- that the Art Building be named “Artis”;
- that the Graphic Design Building be named “Amoenitas”;
- that Block O at the Welkom campus be named the “Lemmy Mule Building”;
- that Block A at the Welkom campus be named the “Hugh Africa Building”;
- that Block P at the Welkom campus be named the “Mangaliso Robert Sobukwe Building”; and
- that Auditorium O3 at the Welkom campus be named the “Alwyn Louw Auditorium”.

The Finance Committee further recommended the following matters to Council for approval:

- the Feasibility Plan and Business Plan of the CUT Agri-Centre;
- the integration of the Innovation and Technology Section with CUTis, and the repositioning of CUTis;
- the progress report on the Transformation Plan 2016 – 2020;
- for Phase 1, the exchange of land between the Free State Sports Science Institute (FSSSI) and CUT, subject to written approval that the buildings may be demolished, if necessary;
- the Preliminary Headline Budget 2018 – 2020;
- the proposal on the refurbishing and demolishing of selected houses to accommodate the following service units: Facilities, Facilities workshops, Goods Receiving Store, Vehicle Park and Postal Services;
- the APP for 2018; and
- the 2017 Mid-term Report to the DHET.

The Finance Committee recommended the following planning-, finance- and resource-related matters to Council for noting:

- Strategic Budget for 2017;
- CUTIS’ reports for 2017;
- reports on all DHET 3-300 infrastructure projects;
- broad-based black economic empowerment (BBBEE) procurement reports for 2017;
- Size-and-Shape Monitor for 2017;
- student application, admission and enrolment monitoring for 2017;
- Sustainability Framework Implementation Plan for 2017;
- progress report on the Sustainability Framework Implementation Plan for 2017;
- Management’s report on financial performance for 2017;

- progress report on the IOP for 2017;
- Internal and External Audit Findings/Ageing Progress Report for 2017 (High-rating Findings) – Finance;
- CUT development proposal – online degree programmes and courses;
- analysis report on Phase 2 of the salary anomalies process;
- project on reimagining CUT as a transformative university and “model” UoT in Africa.

The Human Resources (HR) Committee recommended the following key matters to Council for approval:

- the appointment of Prof. HJ de Jager as CUT Vice-Chancellor and Principal;
- the HR Strategy, revised HR Structure and implementation of the Integrated HR Information System;
- the revised talent management policy;
- the revised Communications and Marketing Structure;
- the proposal on the insourcing of outsourced services;
- the requests for new positions for 2017;
- the policy on external consulting and commercial activities;
- Phase 2 of the insourcing process;
- the appointment of Cllr Dr GA van Gensen as Chairperson of the HR Committee of Council;
- the appointment of Cllr Mr N Dolopi as Deputy Chairperson of the HR Committee of Council;
- the appointment of Cllr Mrs N Nxesi as member of the HR Committee of Council;
- the extension of the redistribution of the DVC: Resources and Operations’ responsibilities to Executive Managers;
- the extension of the appointment of Prof. AB Ngowi as Acting **DVC: Research, Innovation and Engagement** until

31 December 2017, or earlier, pending the recruitment of a suitable candidate to be appointed as DVC: Research, Innovation and Engagement;

- the retention of the DVC: Resources and Operations position;
- the split of the current Director:IT and Logistics position into the Director: ICT and Computer Services and Director:Estates and Infrastructure positions;
- the splitting of the Student Accounts, Bursaries and Loans Unit’s functions;
- the transfer of the Payroll Unit to the Human Resources Section, with effect from 1 January 2018;
- the appointment of Prof. AB Ngowi as DVC: Research, Innovation and Engagement;
- the proposal on the standardisation of Senior Managers’/ Deans’ contracts; and
- the HR Committee’s revised Terms of Reference.

The Audit and Risk Committee recommended the following key matters to Council for approval:

- the appointment of PricewaterhouseCoopers (PwC) as the internal auditors of the university for a five-year period, from 1 January 2017 to 31 December 2019, subject to an annual performance review;
- the updated Strategic Risk Mitigation Report for 2017;
- the progress report on the Strategic Risk Mitigation Report for 2017, which was submitted to Council on a quarterly basis;
- the Enterprise Risk Management (ERM) Strategy;
- CUT’s risk appetite and tolerance levels;
- the Internal Audit Plan for 2017;
- the 2016 Annual Financial Statements;

- the 2016 Annual Report; and
- CUT's Regulatory Universe.

Several institutional regulatory documents that were recommended to Council by its standing committees were approved, including the following:

- revised talent management policy;
- policy on external consulting and commercial activities at CUT;
- institutional Compliance Framework;
- ERM Framework;
- admission policy 2018;
- Student Disciplinary Rules;
- policy on the handling of blood;
- SRC Constitution;
- policy on the CUT residential property for the Vice-Chancellor and Principal;
- ICT incident response procedure;
- ICT security policy;
- ICT security procedure;
- Standard Rules of Order;
- Terms of Reference of the IF;
- Terms of Reference of Exco of Council;
- Terms of Reference of the Remuneration Committee of Council;
- Internal Audit Charter;
- CUT Regulatory Universe;
- Terms of Reference of the Human Resources Committee of Council;
- procurement procedures;

- petty cash policy;
- student debt policy;
- Terms of Reference of the Planning, Finance and Resources Committee (PFRC) of Council; and
- Council Charter.

Compliance with laws, codes, rules and standards

Council resolved to establish a compliance function, and to appoint a Compliance Manager at CUT. The responsibility of developing and implementing an effective Compliance Management Framework was delegated to Management. Council approved a compliance policy and a Compliance Management Framework in 2016.

Compliance with laws, rules, codes and standards is incorporated into the CUT Code of Conduct, which is currently monitored by Senior Managers.

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



Governing stakeholder relationships

Management's quarterly reports to Council address the management of stakeholder participation and relationships at CUT.

The student leadership continues to play a critical role in representing its constituency in the university's major governance and management structures. The Students' Representative Council (SRC) President: Bloemfontein Campus and the SRC President: Welkom Campus are members of both Council and Senate.

The Student Services Council (SSC), which comprises 50% staff and 50% student representatives, attends to all matters relating to services affecting students. For example, during the 2017 academic registration period, in which the institution faced challenges related to the free higher education call and NSFAS administration, all the relevant stakeholders were able to consult and engage constructively.

The Student Academic Affairs Committee (SAAC) attends to all academic-related matters that have a direct impact on students. For example, to ensure that students are effectively and efficiently represented in faculties' structures, and able to engage on critical matters related to the success of the academic project of CUT, the committee has established a Faculty Student Representative Structure and Forum.

Management has a positive relationship with the unions, with bilateral discussions starting to produce results. The salary negotiations for 2017 were not finalised in 2016, due to disagreements pertaining to the quantum of the increase. It was then agreed that the salary increase for 2017 would be finalised and implemented in 2017, following the approval thereof by Council. The Labour Relations Forum (LRF) continuously discussed, and was involved in, the development of proposals on the possible insourcing of outsourced services, elimination of historic salary anomalies, cost-saving initiatives, and continuous performance improvement initiatives. The grievance procedure is used to address employee and student dissatisfaction before it results in serious conflict.

Policies and frameworks

Council, via its Finance Committee and Audit and Risk Committee, ensures that formal financial policies and necessary frameworks are in place at all times. The internal audit function is used to review the implementation of these policies and frameworks, as well as the effectiveness or lack thereof. The implementation of all audit findings – internal and otherwise – is closely monitored by Council. One of the previous audit findings was that some of the policies were outdated. Accordingly, some of these policies were revised in 2017, whilst others will be revised in 2018.

Going concern

Council, via its various standing committees, continuously ensured that CUT has sufficient cash to pay for all its operations, and to timeously settle all its obligations.

The #Fees-Must-Fall campaign was raised and monitored as an emerging risk. The risk posed by the campaign was dealt with at national level, where the Chairpersons of university Councils were also involved in the several stakeholder engagements. The fee gap in 2016 was covered by an increase in NSFAS funding, as well as other bursary funds that were raised/made available during the 2016 financial year.

There was an improvement of 11% in income, from R872 million in 2016, to R968 million in 2017. The net status increased by 3,8%, from a net surplus of R84 million in 2016, to R87 million in 2017.

There was an incline in the current ratio, from 1.1 in 2016, to 1.28 in 2017. The incline in the ratio was caused by the increase in net receivables, as well as a decline in bank overdraft and payables. The debt ratio decreased from 0.544 in 2016, to 0.529 in 2017. Council also considered the profitability ratio, whereby it was established that there was a net surplus of R87 million in 2017, compared to R85 million in 2016. This translated to profitability ratios of 9,59% and 10,32% in 2017 and 2016, respectively.

Based on the above analysis, Council regards CUT as a going concern.

Senate

Senate, as a statutory body, made an important contribution to the positioning of CUT in 2017, in alignment with our Vision 2020. Contributions by the various standing committees of Senate, namely the Executive Committee of Senate (Senex); the four Faculty Boards; the University Academic Appointments and Promotions Committee (UAAPC); the University Academic Planning and Quality Committee (UAPQC); the University Engagement Committee (UEC); the University Research and Innovation Committee (URIC); the University Internationalisation Committee (UIC); and the University Teaching and Learning Committee (UTLC), were discussed at the four regular Senate meetings; two special Senate meetings; and a Senate workshop held during the year, and specific recommendations were made to Council and other relevant committees.

Strong academic leadership was provided by Senate by means of strategic inputs on matters pertaining to teaching, learning, research, innovation, and community engagement, and through close scrutiny of academic processes, and the implementation thereof. Matters that received attention in Senate meetings included the recommendation of a number of policies, procedures, terms of reference and other strategic matters for approval by Council; the renaming of a number of buildings on the two CUT campuses; the conferral of one Honorary Master's Degree in Business Administration, and one Honorary Doctorate in Business Administration; the appointment of Prof. AB Ngowi as DVC: Research, Innovation and Engagement; and the discussion of teaching, research and community engagement activities that are related to the academic project.

The following matters were recommended to Council for approval by Senate in 2017:

- the appointment of Profs. MLE Monnapula-Mapesela and JFR Lues as Senate members on Council;
- the SRC's Terms of Reference;
- the policy on external consultancy (via the Human Resources Committee of Council);
- the revised proposal on refocusing CUTIS;
- the revised Chapter 12 of the Student Disciplinary Rules;
- the policy on the handling of blood;
- the admission policy 2018;
- the amended enrolment and efficiency targets for 2017 to 2019;
- the Senate part of the Annual Report 2016;
- the following name changes:
 - that the Teacher Education Building be named the "Tataisong Building";
 - that the Teacher Education Building Extension be named the "Kopanong Building";
 - that the Management Sciences Building be named the "Petrus Molemela Building";
 - that the new Engineering Building be named the "Ya Rona Building"; and
 - that the Dirk Coetzee West Wing be named the "Ellen Khuzwayo Building";
- the conferral of an Honorary Master's Degree in Business Administration upon Mr LL Mule;
- the conferral of an Honorary Doctorate in Business Administration upon Mr P Motsepe; and
- the appointment of Prof. AB Ngowi as DVC: Research, Innovation and Engagement (via the Human Resources Committee of Council).
- "Innovation in Learning and Teaching" was renamed the "Centre for Innovation in Learning and Teaching (CILT)".

Composition of Senate

Prof. HJ de Jager	Vice-Chancellor & Principal (Chairperson)
Prof. DP Ngidi	Deputy Vice-Chancellor: Teaching and Learning (Deputy Chairperson)
Cllr RG Nicholls	CUT Council Member to Senate
Cllr N Nxesi	CUT Council Member to Senate
Prof. AB Ngowi	Acting Deputy Vice-Chancellor: Research, Innovation and Engagement
Dr N Mrwetyana	Registrar & Secretary to Senate
Prof. AJ Strydom	Dean: Faculty of Management Sciences
Prof. SS Mashele	Dean: Faculty of Health & Environmental Sciences
Dr W Setlaletoa	Acting Dean: Faculty of Humanities (up until 31 September 2017); Head of Department: Mathematics, Science & Technology Education & Associate Professor (from 1 July 2017)
Prof. N Feza	Dean: Faculty of Humanities (from 1 October 2017)
Prof. YE Woyessa	Acting Dean: Faculty of Engineering and Information Technology (up until 31 July 2017) & Head of Department: Civil Engineering
Prof. FE Emuze	Acting Dean: Faculty of Engineering and Information Technology (from 1 August 2017); Associate Professor: Built Environment & Head of Department: Built Environment
Prof. C van der Westhuizen	Assistant Dean: Research, Innovation and Engagement (Faculty of Health & Environmental Sciences) (from 1 January 2017)
Prof. M Mhloho	Assistant Dean: Research, Innovation and Engagement (Faculty of Humanities) (from 1 January 2017) & Associate Professor: Postgraduate Studies
Prof. C Chipunza	Assistant Dean: Research, Innovation and Engagement (Faculty of Management Sciences) (from 1 January 2017) & Associate Professor: HR Management
Ms C Sejake	Acting Director: International Office (up until 31 July 2017)
Mr L Jackson	Director: International Office (from 1 August 2017)
Prof. LE Monnapula-Mapesela	Director: Centre for Innovation in Learning and Teaching
Prof. LOK Lategan	Director: Research Development/Postgraduate Studies
Ms MH Maimane	Deputy Director: Curriculum and Academic Staff Development
Dr HS Jacobs	Deputy Director: Work-Integrated Learning & Skills Development
Mr JJC Badenhorst	Deputy Director: e-Learning & Educational Technology
Dr DM Balia	Director: Institutional Planning & Quality Enhancement
Dr A Szubarga	Deputy Director: Management Information Systems (MIS)
Mr I Mokhele	Deputy Director: Quality Enhancement
Prof. JFR Lues	Professor: Environmental Health & Senate member on Council (from 1 September 2017)

Prof. WJM van den Heever-Kriek	Professor: Clinical Technology
Prof. HJ Vermaak	Professor: Electrical Engineering & Assistant Dean: Faculty of Engineering and Information Technology (from 1 January 2017)
Prof. A Fossey	Professor: Biotechnology
Dr P Tondi	Deputy Registrar: Student Services
Ms N Dlamini	Deputy Registrar: Academic Administration
Dr S Makola	Director: Welkom Campus
Mr JM Kabamba	University Librarian
Prof. I Yadroitsau	Professor: Medical Product Development/Additive Manufacturing
Dr MJ Nkonoane	Representative: Support Services Staff
Ms D Mkhize	Representative: Academic staff
Mr T Ngozo	Representative: SRC (SRC President)
Mr M Mandries	Representative: SRC (President: Welkom campus)

ASSOCIATE PROFESSORS / HEADS OF DEPARTMENT

Prof. M Truscott	Associate Professor: Mechanical Engineering & Applied Mathematics
Prof. PJ Fourie	Associate Professor: Agriculture & Head of Department: Agriculture
Prof. D Kokt	Associate Professor: Leisure Management
Prof. SN Matoti	Associate Professor: Teacher Education & Head of Department: Educational and Professional Studies
Prof. G Alexander	Associate Professor: Postgraduate Studies
Prof. W du Preez	Associate Professor: Mechanical and Mechatronics Engineering
Prof. AH Makura	Associate Professor: Postgraduate Studies
Prof. AJ Swart	Associate Professor: Electrical Engineering
Prof. K Syed	Associate Professor: Unit for Drug Discovery Research
Prof. D Das	Acting Head of Department: Civil Engineering & Associate Professor: Civil Engineering
Prof. JW Badenhorst	Associate Professor: Education Studies
Prof. P Hertzog	Associate Professor: Electrical Engineering
Prof. E Theron	Associate Professor: Civil Engineering
Prof. M Mostafa	Associate Professor: Civil Engineering
Prof. P Rambe	Associate Professor: Business Support Studies (from 1 July 2017)
Prof. EM Masinde	Associate Professor: Information Technology & Head of Department: Information Technology (from 1 July 2017)

Prof. K Kusakana	Associate Professor: Electrical/Electronic/Computer Engineering (from 1 July 2017) & Acting Head of Department: Electrical, Electronic and Computer Engineering
Prof. PA Phindane	Associate Professor: Language/Social Sciences Education (from 1 July 2017) & Head of Department: Language and Social Science Education
Prof. WN Setlalentoa	Associate Professor: Mathematics/Science/Technology Education (from 1 July 2017) & Head of Department: Mathematics, Science & Technology Education
Prof. HS Friedrich-Nel	Associate Professor: Radiography & Head of Department: Clinical Sciences
Prof. FE van Schalkwyk	Associate Professor: Clothing & Fashion; Head of Department: Design & Studio Art & Senate representative on Council (up until 31 August 2017)
Prof. T van Niekerk	Associate Professor: Public Management & Head of Department: Government Management
Prof. F van der Walt	Associate Professor: Business Management (from 1 July 2017); Department Manager: Business Support & Business Management
Prof. G Schlebusch	Head of Department: Postgraduate Studies: Education & Associate Professor: Teacher Education
Dr NJ Malebo	Head of Department: Life Sciences
Dr G Makanda	Acting Head of Department: Mathematical and Physical Science
Dr G Jacobs	Head of Department: Mechanical and Mechatronic Engineering
Prof. M Naong	Head of Department: Business Management
Prof. DY Dzansi	Head of Department: Business Support Studies
Dr R Haarhoff	Head of Department: Tourism & Events Management
Ms V Koma	Acting Head of Department: Accounting and Auditing
Dr BG Fredericks	Head of Department: Communication Sciences
Dr E Vermaak	Acting Head of Department: Health Sciences
Mrs C Bester	Acting Head of Department: Design and Studio Art
Mrs D Crowther	Acting Head of Department: Hotel School
DEPARTMENT MANAGERS	
Dr M Oosthuizen	Department Manager: Information Technology (Welkom)
Mr SS Ramphoma	Department Manager: Government Management & Business Management (Marketing)
Dr LJ Segalo	Department Manager: BEd Programmes
Dr BP Badenhorst	Department Manager: Communication Sciences
Mr T Matlho	Acting Department Manager: Postgraduate Studies: Education
Mr CH Wessels	Department Manager: DIT
Ms G Pule	Department Manager: Accounting and Internal Auditing

Table 17: Composition of Senate

Institutional Forum

The Institutional Forum (IF) functions in terms of Section 31 of the Higher Education Act (Act No. 101 of 1997), and Chapter 7 of the CUT Statute 2017.

Composition of IF

The IF comprises:

- one member of Executive Management, appointed by the Vice-Chancellor and Principal;
- the Registrar, as Secretary;
- one external Council member;
- one Senate member;
- one academic staff member;
- one non-academic staff member;
- two members of the Executive Committee (Exco) of the Students' Representative Council (SRC);
- two members of the two recognised employee unions (one from each union);
- one member of the Alumni Association;
- one person representing the Human Resources Section, with background on transformational matters;
- one member of the Student Services Council (SSC); and
- a maximum of three additional members approved by the IF.

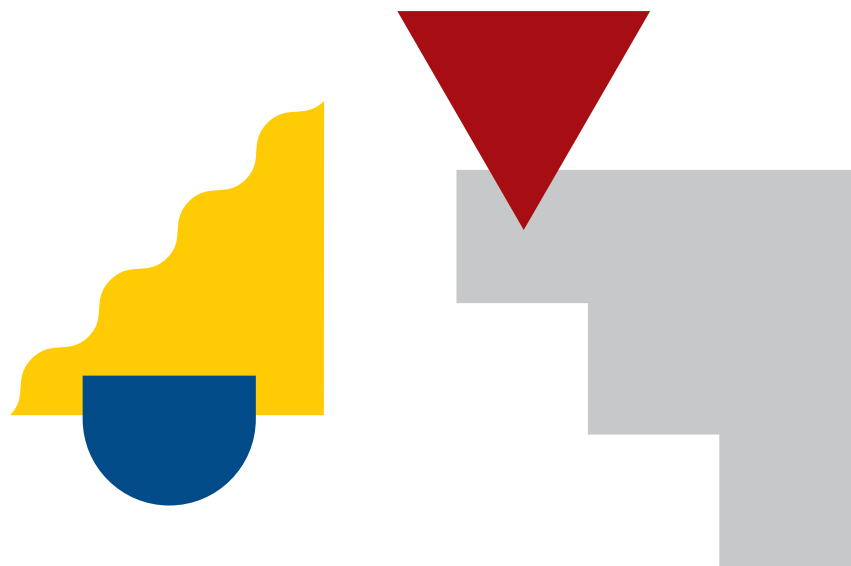
IF meetings

The IF held four ordinary meetings, two special meetings, and one electronic meeting, via a round-robin process, in 2017.

ATTENDANCE OF IF MEETINGS

Although CUT's IF comprises 13 members, 16 IF members attended the IF's seven meetings in 2017. This situation existed for the following reasons:

- one member of Council and one member of a labour union attended the IF meetings, which members were replaced by other members on the IF; and
- two SRC members attended the IF meetings. However, their term of office as members of the Exco of the SRC came to an end in October 2017, when the new student leadership was elected. An overview of attendance of IF's four ordinary meetings and two special meetings in 2017 is provided below.



MEMBERS	2017-02-15 (special)	2017-02-21	2017-05-19	2017-08-25	2017-11-01 (special)	2017-11-03
Dr N Mrwetyana (Registrar)	✓	✓	✓	n/a	✓	✓
Mr TS Masoeu (Chairperson)	#	✓	✓	*	✓	✓
Mr KE Moremi (Deputy Chairperson)	✓	✓	✓	✓	✓	✓
Cllr Dr NB Chinje	-	-	≠	#	#	#
Cllr LE Sebola	#	#	✓	*	*	✓
Prof. C Chipunza	*	✓	*	*	✓	*
Prof. DP Ngidi	✓	✓	✓	*	✓	✓
Ms L Jordaan	✓	*	✓	✓	✓	*
Ms N Dlamini	✓	✓	✓	*	✓	✓
Ms M Letsoara	✓	✓	✓	✓	✓	✓
Ms NQ Mkumatela	-	-	*	✓	✓	✓
Ms S Hafula	#	#	#	#	#	✓
Mr I Mokhele	✓	✓	✓	≠	≠	≠
Mr LP Kokoana	✓	✓	✓	✓	✓	✓
Mr TT Lekhetho	✓	≠	≠	≠	≠	≠
Mr T Ngozo	✓	✓	✓	*	≠	≠
Mr M Mandries	✓	✓	✓	-	≠	≠

Table 18: IF members' attendance of IF meetings in 2017.

Explanation of keys				
Present	Absent with apology	Absent without apology	Not yet a member	No longer a member / resigned
✓	*	-	#	≠

Advisory involvement

The IF advised Council on matters that fall within the IF's area of responsibility, as well as on transformation-related matters that affect the institution, including the following matters:

CUT Vice-Chancellor and Principal: The IF advised Council on the filling of the position of Vice-Chancellor and Principal. The IF recommended to the Human Resources Committee of Council the appointment of Prof. HJ de Jager as CUT Vice-Chancellor and Principal.

Deputy Vice-Chancellor (DVC): Research, Innovation and Engagement: The IF also advised Council on the filling of the vacant DVC: Research, Innovation and Engagement position. The IF recommended to the Human Resources Committee of Council the appointment of Prof. AB Ngowi as DVC: Research, Innovation and Engagement.

The IF further advised the Human Resources Committee of Council to consider including a clause in Prof. Ngowi's employment contract that requires him to develop a pool of approximately three women, one of whom CUT may consider as suitable for occupation of the DVC: Research, Innovation and Engagement position upon the expiry of his tenure.

IF membership: Considering Dr Chinje's continuous absence from IF meetings, the IF advised Council to identify a dedicated member of Council to serve as Council representative on the IF.

Revised Students' Representative Council (SRC) Terms of Reference: The student leadership was consulted on the revised SRC Terms of Reference via various structures at CUT. The IF then recommended the revised SRC Terms of Reference to Council for approval.

Restructuring of the Resources and Operations Division: After the restructuring of the Resources and Operations Division was discussed by Council's standing committees, including the Finance and Human Resources committees, as well as the Management Committee (Mancom), the IF:

- advised Council to retain the DVC:Resources and Operations position, and to commence with the recruitment process for a DVC: Resources and Operations. The newly appointed

DVC: Resources and Operations should be given the opportunity to pronounce on the proposed restructuring of the Resources and Operations Division;

- further advised Council not to approve the following matters, as the newly appointed DVC: Resources and Operations should be given the opportunity to pronounce on the entire proposed restructuring of the Resources and Operations Division:
 - the immediate split of thecurrent Director: IT and Logistics position into the Director: ICT and Computer Services and Director:Estates and Infrastructure positions;
 - the splitting of the Student Bursaries and Loans Unit's functions, namely that:
 - the administrative functions be transferred to the Registrar's Division;
 - the accounting and financial activities remain within the Finance Section, with effect from 1 January 2018; and
 - the transfer of the Payroll Unit to the Human Resources Section, with effect from 1 January 2018;
 - advised that the requirements of the CFO's dotted line to the Vice-Chancellor and Principal should be clarified and documented in procedures; and
 - advised Management to address the anomalies in the Peromnes levels of Director positions, without it resulting in an increase in the salary budget, as a matter of urgency.
- Gender equality at CUT:** Considering the need to address existing gender inequalities at CUT, the IF advised Council to consider including a clause in Senior and Executive Managers' employment contracts that requires them to develop a pool of women across CUT's organisational structure, from which suitable candidates may be identified to occupy vacant Senior and Executive Management positions.



Academic and Research Projects

Teaching and Learning

Aligned with emerging needs, the university designed a number of new programmes, based on its niche, which respond to the external developmental needs of government, business and industry. As a direct strategic response to Vision 2020 – enhancing the academic project – CUT launched a process called “Strategic Transformation of Educational Programmes and Structures” (STEPS) in February 2010. The STEPS process entailed the revision of the instructional programmes offered in order to ensure that

they respond to topical and acute developmental needs in fields such as Renewable Energy Technologies; Water Management and Hydrology; Transport and Logistics; Community Development Work; Education; Health Management; and Studio Art and Design. The STEPS process entailed a major analytical and interactive, internal and external review of CUT’s philosophy of education; curriculum content and structure; modalities of teaching, learning and support; and graduate attributes and competencies.

Programme accreditation

In addition to 14 new academic programmes submitted to the CHE for accreditation in 2016, the university submitted 15 new academic programmes for accreditation in 2017. Furthermore, 15 new programmes received PQM clearance from the DHET.

A major challenge for the period 2018 to 2020 will be the phasing out of “old” academic programmes, and the phasing in of new academic programmes that are aligned with the Higher Education Qualifications Sub-Framework (HEQSF). A number of new programmes are currently in different stages of implementation, as indicated below. This process placed tremendous pressure on the university’s staff and resources. Nevertheless, good progress was made towards developing new programmes.

In August 2017, the Engineering Council of South Africa (ECSA) informed the University that both the National Diploma and BTech programmes in Electrical, Computer and Mechanical Engineering received full accreditation until 2021. The Civil Engineering programme received conditional accreditation until 2018, provided that the concerns that were identified have been fully addressed at the time of ECSA’s follow-up visit. Thereafter, full accreditation until the next cycle visit in 2021 will be granted.



- CUT hosted the 4th annual UNESCO Africa Engineering Week **Front row, from left:** Mr Siphon Madonsela, Chief Executive Officer: Engineering Council of South Africa; Mr Cyril Gamede, President of Engineering of South Africa; Prof. Alfred Ngowi, Acting Deputy Vice-Chancellor: Research, Innovation and Engagement and Prof. Fidelis Emuze, Acting Dean: Faculty of Engineering and Information Technology. **Back row, from left:** Mr Daan du Toit, Deputy Director-General: Department of Science and Technology; Mr Yashin Brijmohan, Vice President: World Federation of Engineering Organisation, and Prof. Hubert Gijzen, Director and Representative: UNESCO Regional Office for Southern Africa.

It is indeed a great achievement to obtain accreditation for five of the seven Engineering programmes until the next cycle.

The Postgraduate Diploma in Construction in Quantity Surveying, and the Postgraduate Diploma in Construction in Urban Development, received full accreditation. The Higher Education Quality Committee (HEQC) approved the recommendation of the Accreditation Committee, and decided that the Postgraduate Diploma in Design Technology should be accredited with prior-to-commencement conditions. The Department of Higher Education and Training received an application to introduce the Postgraduate Diploma in Higher Education, and has since approved that the institution submit this application to CHE for accreditation. The Professional Board for Environmental Health Practitioners accredited CUT to offer the Professional Degree in Environmental Health. Finally, a PGDip for lecturing staff at UoTs was cleared for inclusion into the CUT Programme Qualification Mix (PQM).

Student and staff achievements and development

Student and staff achievements and development for the reporting period include, *inter alia*, the following:

- Prof. FA Emuze was selected as a finalist in the NSFT-South-32 Awards 2017.
- Ms J Coetzer from the Department of IT won the 2017 CUT Entrepreneurship Competition that was held during the CUT Entrepreneurship and Innovation Week 2017.
- Prof. Yali Woyessa obtained the prestigious J. William Fulbright Foreign Scholarship for the 2017 to 2018 academic years, which includes a six-month study period in the USA.
- Ms C de Villiers was awarded the prestigious Abe Bailey Travel Bursary.
- Dr J Hattingh served as the project leader for a mentorship programme for five Tourism SMMEs from the Free State and Northern Cape provinces.
- Prof. DK Das from the Department of Civil Engineering participated in a capacity-development programme on “How to Change the World by Engineering Education” at the University College London, as part of a capacity development programme on enhancing Engineering Education in South Africa. The project is supported by the DHET, and includes CUT, UFS, the Tshwane University of Technology (TUT), the University of Pretoria (UP) and the University of the Witwatersrand (Wits).
- Dr V Moeketsi translated a glossary for RUBRICS on textbooks for learners, which will be prescribed in 2019.
- CUT’s Careers Office received an award from Universum, a global leader in employer
- branding, for being rated by students as the third best in South Africa.
- The CUT Enactus team continued to excel at the 2017 Enactus SA Competition held in July 2017. 27 universities’ and institutions’ Enactus teams participated in the competition. CUT’s Enactus team obtained fourth place in the overall winners, second place in the 2017 HARMONY LED (Local Economic Development) Enactus Challenge, and first prize in the League 4 Thematic Competitions, judging element 1: Triple Bottom Line Sustainability. The team received the fifth-most funding awards from all the participants.
- Ms Nomabhongo Masana, a Master’s Degree student in IT and part-time Lecturer in the Department, won the 2017 South African Women in Science Awards (WISA), and was awarded the TATA Scholarship.
- Mr Zuko Hlanjwa, a top student in the Faculty of Management Sciences, recently represented CUT at the National Excellence Awards hosted by the South African Board for People Practices (SABPP).

- Terry Tshesebe, a BTech: Agriculture student in the Faculty of Health and Environmental Sciences, won the National 2017 Adzuna Graduate of the Year competition. Adzuna is South Africa's largest job aggregator, running its sixth Graduate of the Year competition, taking place across 11 different countries, to reward the brightest and best graduates from around the world.
- Ms Zanele Rune, a third-year Environmental Health student, represented CUT at the National Environmental Health Awards in Durban in September 2017. She was the runner-up in the category Best Performing Student in the Environmental Health Programme in South Africa.
- The CUT Team was awarded the Best Label Design at the 10th Annual SAB Intersarsity Beer Brewing Championships 2017, amongst 16 participating universities.

Graduate attributes project

Implementation of the Graduate Attributes Project continued in 2017. Business projects were approved by the Centre for Innovation in Learning and Teaching (CILT), and funded through the DHET Teaching and Development Grant. The names of the projects (businesses) are Public Motivators, Expressions Language Solutions, Mago-lyte, and Academic Events. The first three projects were also registered for the CUT Entrepreneurship Week, where the students presented these to a panel of judges. Mago-lyte won, whilst Expressions Language Solutions obtained second place. The FabLab assisted Mago-lyte with the incubation of, and provided assistance with, their prototype.

Furthermore, five third-year Environmental Health students presented a winning idea on the Sustainable Waste Management Project, and won the competition on sustainable ways for keeping CUT clean. These students participated in the World Environmental Health Commemoration Conference that was hosted by the South African National Department of Health from 26 to 28 September 2017.

Significant developments and achievements in teaching and learning, and academic development and support

The following achievements were celebrated in 2017:

- Staff members maintained their commitments as moderators and external examiners at a number of universities, including Walter Sisulu University (WSU); Nelson Mandela University (NMU); Tshwane University of Technology (TUT); University of the Free State (UFS); Cape Peninsula University of Technology (CPUT); Sol Plaatje University; and Motheo Technical Vocational Education and Training (TVET) College.
- Staff members continued to serve as reviewers for a number of technical journals, including the *Journal of Construction Project Management and Innovation*; *Journal of Built Environment Project and Asset Management*; *Journal of Engineering, Project, and Production Management*; *South African Journal of Business Management*; *International Journal of Construction*; *Journal of Transportation Engineering (ASCE)*; *International Journal of Pavement Engineering*; *Journal of Water Management*; *Journal of New Generation Sciences*; *African Journal of Tourism, Hospitality and Leisure*; *South African Journal for Research in Sport, Physical Education and Recreation*; *Acta Commercii*; and *Administratio Publica*.
- Staff members served as members, and in other capacities, on various boards and structures, including the Bar Council (Advocates); Attorney's Bar; Afrikaanse Taalmuseum; South African Institute for Drug-free Sport's Tribunal; Audit Committee of the War Museum; the Free State Residential Care Centre, and as registered Assessor for the Local Government Sector Education and Training Authority (LGSETA), as well as regional member of the Association of South African Travel Agents (ASATA).

- Staff members were registered as full members of (i) the South African Council for the Quantity Surveying Professions (SACQSP) (as Registered Quantity Surveyor); and (ii) the Engineering Council of South Africa (as Registered Engineer).
- A total of 57 staff members participated in the Scholarship of Teaching and Learning (SoTL) project for the period January 2017 to December 2017, including 11 mentors and six mentees. Furthermore, SoTL members presented 22 papers at national and international conferences. 22 conference proceedings and 14 papers were published in accredited journals; thus, 36 outputs in total. Eight of these were accredited research papers published by CILT staff.
- The South African Council for the Project and Construction Management Professions (SACPCMP) accredited the NDip in Building and BTech in Construction Management for another five years (full accreditation).
- The Department of Civil Engineering successfully offered four new programmes during the first semester, namely the NDip, BTech and BSc in Water and Environment, and the Advanced Diploma in Logistics and Transportation Management.
- Five new extended curriculum programmes (ECPs) and two new higher certificates were developed.
- The cyclic, fourth-yearly Engineering Council of South Africa (ECSA) programme accreditation visit from 24 to 26 April 2017 transpired successfully. The NDip and BTech programmes for both Electrical Engineering and Mechanical Engineering were fully approved, until the next visit in 2021.
- The following online programmes were developed, and are ready for online implementation:
 - Postgraduate Diploma in Design Technology;
 - Advanced Diploma in Agriculture: Extension;
 - Advanced Diploma in Logistics and Transportation Management; and
 - short course in Guesthouse Management.
- A PGDip for lecturing staff at universities of technology (UoTs) was developed, and cleared for inclusion in CUT's Programme and Qualification Mix (PQM).
- An Honorary Doctorate in Engineering was conferred upon Prof. Seeram Ramakrishna from the National University of Singapore. Prof. Ramakrishna is recognised by Thompson Reuters as one of the world's most influential scientific minds of 2014 and 2015, especially in the field of nanomaterials by electrospinning for use in diverse fields such as healthcare, energy, water and the environment. Prof. Ramakrishna was also appointed as a Visiting Professor in the Department of Mechanical and Mechatronic Engineering.



- **CUT honoured one of the world's most influential scientific minds -** CUT awarded an Honorary Doctorate in Engineering to Prof. Seeram Ramakrishna from the National University of Singapore (NUS) who was appointed as a Visiting Professor in the Department of Mechanical and Mechatronic Engineering at CUT.

- A staff member from the Faculty of Management Sciences (FMS) received the prestigious Abe Bailey Travel Bursary.
- A staff member from the FMS completed industry exposure at the Head Office of the International Association of Travel Agents (IATA) in Geneva, Switzerland.
- Bursaries to the value of R546 346 were awarded to deserving Hotel School students by Tsogo Sun; the Saxon Hotel, Villas and Spa; Luxury Hotels; Kakgo Events; and the Shoprite Group.
- Three staff members were registered as full members of the South African Institute of Chartered Accountants (SAICA); one staff member as a full member of the South African Institute of Professional Accountants (SAIPA); and one staff member as full member of the Association of Accounting Technicians (AAT).
- The Hotel School successfully hosted the fifth annual Fiesta Del Vino, which was attended by 440 guests.
- The Hotel School hosted the prestigious Annual National Research Foundation (NRF) Awards, which was attended by the Minister of Science and Technology, Ms Naledi Pandor; the former President, Mr Kgalema Motlanthe; etc.
- The Careers Office, in collaboration with the Communications and Marketing Unit, received a merit award at this year's Marketing, Advancement and Communication in Education (MACE) Conference for the Careers Office's webpage "Useful Information for entering the workplace".
- CUT's Careers Office received an award from Universum, a global leader in employer branding, for being rated the third-best careers office in South Africa by students.
- A workshop on "Focusing on the Sustainable Institutionalisation of Scholarly Community Engagement in the Curriculum of Higher Education" was held on 22 and 23 November 2017.
- The guidelines for Stars of Academia, Research and Support (SoARS) were revised. The programme now forms part of the Human Project, which is aimed at enabling all full-time staff (both academic and support services) to develop and reach their full potential through coaching, mentoring, financial support and study time (sabbatical and study leave). A total of nine SoARS fellows are currently supported.
- 562 lexicons in Civil Engineering were developed. A book will be published after verification and registration by the Pan South African Language Board (PanSALB).
- A total of R50320130.05 from the Teaching Development Grant (TDG) was utilised to support teaching development and student support over the three-year cycle, including the phase-out period in 2017. A new University Capacity Development Grant and Programme were introduced.
- The Director of CILT contributed towards institutional building as a member of the following external bodies: Umalusi Council, Council on Higher Education Accreditation Committee, and the National Tertiary Retirement Fund (NTRF) Board.
- One of CUT's students, Terry Tshesebe, was the South African winner of the Graduate of the Year Competition that was presented by Adzuna.

Regional, national and international co-operation (academic partnerships)

The following partnerships were forged in 2017:

- The learning programme in Human Resources Management hosted 16 exchange students from Aalen University of Applied Sciences.
- The FMS hosted its first-ever International Conference on Entrepreneurship Development (ICED), which was attended by delegates from various countries.

- Vibrant partnerships were forged and/or implemented between the FMS and the Greater Zimbabwe University, the Ho Technical University in Ghana, the Montpellier University in France, and Breda University in the Netherlands.
- Partnerships were forged between the FMS and government, business and other institutions, including the Association of Accounting Technicians; training in restaurant service to various schools; the TVET colleges in the Free State; the LGSETA; the Maccauvlei Learning Academy; BankSETA; and the Services SETA.
- The FMS hosted the Business Ethics Project Awards function in co-operation with PricewaterhouseCoopers (PwC).
- The Hotel School partnered with KykNet to host auditions for *Koekedoortjie*, and with Bidvest to host the 2016 Master Caterers Challenge.
- Various staff members from the FMS underwent industry exposure at private sector businesses, municipalities and other government-related institutions.
- Guest lectures were presented by representatives of PwC, UFS, the Provincial Public Service Commission, the Working for Water Non-Governmental Organisation (NGO), and regional government officials.
- Senate approved the appointment of Prof. Sakyi, Acting Vice-Chancellor of Ho Technical University in Ghana, as Visiting Professor in the FMS.
- Quarterly South African Technology Network (SATN) meetings were attended by Deputy Directors who are involved in the various committees, including the Programmes and Qualifications Committee, the Work-integrated Learning (WIL) Committee, and the Teaching and Learning Committee.
- Ms MH Maimane is co-ordinating an SATN collaboration project on articulation – a project she conceptualised for the UoT sector that is linked to her PhD studies.
- Collaborating with other UoTs in the National Graduate Attributes Project, which is funded by the DHET.
- Collaboration was forged between CUT's SoTL and Liverpool Hope University (LHU) in the United Kingdom (UK), for initiating the process of building a shared Framework for a Quality Enhancement Model (QEM) for Learning and Teaching.
- **European partners:** Université de Montpellier (UM), Vilniaus Gedimino Technikos Universitetas (VGTU), Uppsala University (UU), Technische Universität Berlin (TUB), Universiteit Gent (UG), Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), European University Association (EUA), Coimbra Group (CG).
- **South African partners:** Central University of Technology, Free State (CUT), Stellenbosch University (SU), University of Pretoria (UP), Tshwane University of Technology (TUT), University of Cape Town (UCT), Cape Peninsula University of Technology (CPUT), University of the Western Cape (UWC).
- **North-West University (NWU) initiative:** CUT was invited to participate in the Erasmus+ Sustainable (Achievable) Development Goals Promoting Internationalisation and Educational Empowerment from North-South Perspectives (SAPIENS) – Postgraduate Academy (PA) – Linking Life and Learning: For a More Sustainable Future initiative. The purpose of the initiative is to enhance both practical knowledge and research capacities related to the SDGs by providing a unique platform for interdisciplinary and international exchange in the sub-Saharan region, with expertise from both European and South African partners. The following universities are included: **South Africa:** NWU, CUT, UFS and UWC; **Europe:** Justus Liebig University, Uppsala University, University of Ghent, Universitat Rovira I Virgili.

- **International Credit Mobilities (ICM):** CUT is involved in the following ICMs:
 - **Uppsala University:** A total of five ICMs, namely: three scholarships for outbound master's degree/doctoral students for the next academic period, for a period of six months each; one scholarship for an outgoing (inbound) doctoral student, for a six- to eight-month period; and two scholarships for staff mobility, for a period of 14 days each.
 - **University of Montpellier:** A total of seven ICMs, namely two scholarships for outbound master's degree/doctoral students for the next academic period, for a period of six months each; two scholarships for outgoing (inbound) doctoral students, for a six- to eight-month period each; and three scholarships for staff mobility, for a period of 14 days each.



● French diplomats visit CUT to deliberate on possible international collaborations

Supplemental Instruction (SI)

The University implemented Supplemental Instruction (SI) as a means to enhance student success. All students who obtained less than 50% in a test were referred for SI. CILT played a pivotal role in implementing, managing and offering this programme. During 2017, a large number of students benefitted from SI, maintaining the demand for, and the popularity of the programme, as illustrated in table below.

	1 ST YEAR	2 ND YEAR	3 RD YEAR	TOTAL PER MONTH	ACCUMULATED TOTAL
February	5 649	528	294	6 471	
March	6 091	428	844	7 363	13 834
April	1 134	156	27	1 317	15 151
May	3 682	182	503	4 344	19 518
July	267	22	36	325	19 843
August	4 210	492	486	5 188	25 031
September	3 046	373	400	3 819	28 850
October	1 089	648	72	1 809	30 659

Table 19: Supplemental Instruction 2017

SI was presented in 78 first-year, 27 second-year and 14 third-year subjects.

Access to selected courses, and academic progress in different disciplines and study areas

To support and responsibly guide access to selected courses, and academic progress in disciplines and study areas, Senate approved the introduction of Academic Advising, which has since been introduced in all faculties and the Welkom campus. This is an opportunity to exchange information that is designed to guide students to reach both their educational and career goals. This initiative is aimed at promoting student academic success and retention. The responsibilities of academic advisors include

informing students about departmental and programme policies, regulations and procedures through:

- advising and selecting courses, and assisting students in developing academic plans that satisfy their degree requirements;
 - monitoring students' progress towards their educational goals;
 - implementing intervention measures for all students who obtain 50% and less;
 - discussing students' academic performance and the implications of their performance for the undergraduate programmes and professional requirements; and
 - submitting written reports on the implementation of academic advising to the UTLC on a quarterly basis.
- The guidelines for SoARS were revised. The programme now forms part of the Human Project, aimed at enabling all full-time staff (both academic and support) to develop and reach their full potential through coaching, mentoring, financial support and study time (sabbatical and study leave). A total of nine SoARS fellows are currently supported.
 - The annual CUT graduate attributes roadshows at the Welkom and Bloemfontein campuses were successfully hosted on 07 and 14 March 2017, respectively.
 - The formal mentorship programme for newly appointed academic staff members took place from 16 to 17 February 2017; 25 to 26 May 2017; 17 to 18 August 2017; and 02 to 03 November 2017. The following topics were covered: development of teaching and learning portfolios; the higher education context; using a range of learning theories in pedagogically sound ways to enhance student learning; academic literacies; articulation gap; outcomes-based curricula; constructive alignment; curriculum orientation and design; assessment of learning and teaching; learning facilitation, learning, and learner-centred approaches; developing and teaching a blended course; developing a strategy for WIL; and enhancing the quality of teaching and learning.

Academic support interventions

- In 2017, a total of 19 CUT staff members participated in industry exposure, with the funding support of the DHET Teaching Development Grant. A total of 57 academic staff went on industry exposure during the entire period of the TDG funding.
- The HEAIDS team was hosted by CUT on 14 and 29 March 2017, respectively, as part of the monitoring and evaluation of the project. This project came to an end at the end of April 2017. Deliverables from the completed project included the incorporation of content on HIV/AIDS into the following programmes: 1) Diploma and Advanced Diploma in Design and Studio Art, and development of a specialised video; 2) two modules in the Higher Certificate Community Development Practice; and 3) BEd Teacher Education in the modules Business Management, Economics and Accounting. In addition, a draft CUT policy on HIV/AIDS was developed.
- A conference on Innovation in Teaching and Learning was hosted from 01 to 02 June 2017. The conference was attended by 89 participants from CUT, the University of South Africa (UNISA), UCT, TUT and UFS. The theme for the conference was "*Re-examining Teaching and Learning in the Context of UoTs*".
- The 3rd Annual SoTL Conference was successfully held from 25 to 26 October 2017. The Conference sought to advance SoTL's long-term goals of creating a platform for academic staff to share ideas and experience on: (i) good teaching (teaching that promotes student learning and other related student outcomes); (ii) scholarly teaching (teaching that is supported by a body of research to increase effectiveness);

and (iii) SoTL (a combination of reflection and knowledge that yields questions about teaching for study). A total of 109 delegates from national and international HEIs attended the Conference, of which 39 were SoTL members, and 47 papers were presented. The two keynote speakers were Dr Helen Bond from Howard University (USA) and Dr Chrissie Boughey from Rhodes University.

- A PGDip for lecturing staff at UoTs was cleared for inclusion in the CUT PQM. The PGDip was developed by the following staff:
 - CUT: Prof. 'Mabokang Monnapula-Mapesela, Director: CILT (Project Leader), Prof. Hesta Friedrich-Nel, HoD: Clinical Sciences; Prof. Gawie Schlebusch, HoD: Postgraduate Studies Education; Dr Marita Oosthuizen, Department Manager: Information Technology; Prof. Isaac Ntshoe, Head: SoTL; Dr Jeanette du Plessis, Lecturer, Clinical Sciences (Radiography); Ms Chichi Maimane, Deputy Director: Curriculum and Academic Staff Development; Mrs Abigail Edem, Curriculum Developer; Mr Vakele Nobongoza, Quality Enhancement Advisor; Dr Rosaline Sebolao, Manager: Special Projects: Teaching and Learning; Ms Selina Mphumela, Teaching and Learning Co-ordinator: Faculty of Health and Environmental Sciences; and Mr Johan Badenhorst, Deputy Director: e-Learning and Educational Technology.
 - Centre for Higher Education Research, Teaching and Learning (CHERTL), Rhodes University: Prof. Lynn Quinn and Dr Jo-Anne Vorster.
- CILT initiated the development of lexicons, which was funded through the DHET TDG. 562 lexicons in Civil Engineering were developed by a team of lexicographers, Civil Engineering lecturers and students, the Writing Centre Co-ordinator, and Student Writing Advisors/Consultants. A book of these lexicons will be published after verification and registration by the Pan South African Language Board (PanSALB).
- A total of R50320130.05 in TDG funding was utilised to support teaching development and student support over the three-year cycle, including the phase-out period in 2017. A new University Capacity Development Grant and Programme have been introduced.
- A Sesotho course was offered to academic and support services staff. Although seven staff members registered for the course, only two staff members, Mr P Hoeyi and Ms L van Heerden, completed the course and received certificates.
- Graduate attributes were incorporated into the following programmes:
 - Bachelor of Construction in Construction, Safety and Health Management; and
 - Diploma in Events Management.
- Seven new ECPs were developed, namely:
 - Bachelor of Construction in Construction Management;
 - Diploma in Somatology;
 - Bachelor of Construction in Quantity Surveying;
 - Civil Engineering;
 - Electrical Engineering;
 - Higher Certificate: Information Technology; and
 - Higher Certificate: Construction.
- Core curriculum modules were incorporated in the following new programmes:
 - Bachelor of Construction in Construction, Safety and Health Management; and
 - Diploma in Events Management.

Careers Office

- CUT's Careers Office received an award from Universum (global leader in employer branding) for being rated the third best in South Africa by students.
- One of CUT's students, Terry Tshesebe, was the South African winner of the graduate of the year competition presented by Adzuna (<https://www.adzuna.co.za/blog/2017/07/17/local-division-of-graduate-of-the-year-winner-announced/>).
- The Careers Office, in collaboration with Advancement & Marketing, was awarded a Merit Award at this year's MACE Conference for the Careers Office webpage – Useful Information for entering the workplace.
- The Careers Office presented a Career Fair on both the Welkom and Bloemfontein campuses, with 37 companies and 1 057 students/graduates in attendance.
- 58 career training sessions were presented and attended by 1 177 CUT students.

Work-integrated Learning (WIL) and Skills Development

- 3 755 students registered for WIL at CUT during 2017.
- 98.5% of CUT students who qualified to be placed for WIL were placed.
- In addition to SETA funding, an amount of R29.3m were negotiated with WIL employers as "salaries" for students placed for WIL.
- 27 new partnerships were established for Work-integrated Learning, which contributed towards having 841 employers on the WIL central database.

General developments

The employability improvement project is a bilateral technical cooperation project between the DHET and JICA (Japan International Cooperation Agency) to promote employability of students attached to Universities of Technology in South Africa, and is coordinated at CUT by the Unit for WIL & Skills Development. An Employability Improvement Practitioner was appointed during March 2017.

279 students and 20 lecturers at CUT received employability improvement training from the appointed Employability Improvement Practitioner.

Research, Innovation and Engagement

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 at the University. This

approach corresponds with international best practice in research management.

The **objectives** of CUT's Research and Development Plan 2014 – 2020 are to increase the:

- "seniority" of the academic staff profile;
- publication profile – 75% of the DHET norm of 1.1 credit units per full-time academic staff member;
- postgraduate enrolment – 5% of the student body;
- number of completed master's and doctoral research projects;
- external funding basis;
- number of rated researchers; and
- multi-, inter- and transdisciplinary research.

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* thereof.

During 2016, the University underwent a process of institutional repositioning, resulting in the split of the Academic and Research portfolio into the Teaching and Learning, and Research, Innovation and Engagement portfolios. Consequently, a new section was introduced in 2017 to support and facilitate research development and postgraduate studies at the University.

Research

The following activities, aimed at enhancing the research project at CUT, were recorded during the reporting period:

The research outputs recorded in 2016 (Note: Year N-1 is used by the DHET), are as follows:

- publication units for 2016 = 117.09 credit units, 9.96% higher than 2015 (106.48);
- 2016 books = 9.89 units, compared to 1.11 units in 2015;
- 2016 articles = 66.81 units, compared to 74.52 in 2015. This is due to predatory publications not being subsidised;
- 2016 conference proceedings = 40.39 units, compared to 30.85 in 2015;
- NRF-rated researchers 2017 = 10, compared to the target of 13;
- five postdoctoral scholarships, compared to the target of four;
- actual M student headcount for 2017 was 368 (target = 280); and
- actual D student headcount for 2017 was 166 (target = 150).

This tremendous growth can now be regarded as a sustained research output for the university. However, CUT's major challenge is to increase its portion of the total research outputs in the sector, of which CUT is currently generating only 0,55%.

RESEARCH OUTPUTS

In May 2016, CUT submitted a claim of the 2016 research publications, amounting to **143.61** units for books, conference proceedings and journals. The submission was assessed by the DHET based on the newly implemented *Research Outputs Policy (2015)*, which replaced the *Policy for Measurement of Research Outputs of Public Higher Education Institutions (2003)*.

Based on the DHET assessment report of December 2017, CUT was allocated a total of 117.09 research output units. This is an increase of 10.61 units from 106.48 units awarded for 2015, representing a 9.96% growth from 2015 to 2016.

The institutional publication trend for all publications (books, journals and conference proceedings) over the period 2012 – 2016 is shown in figure 3.

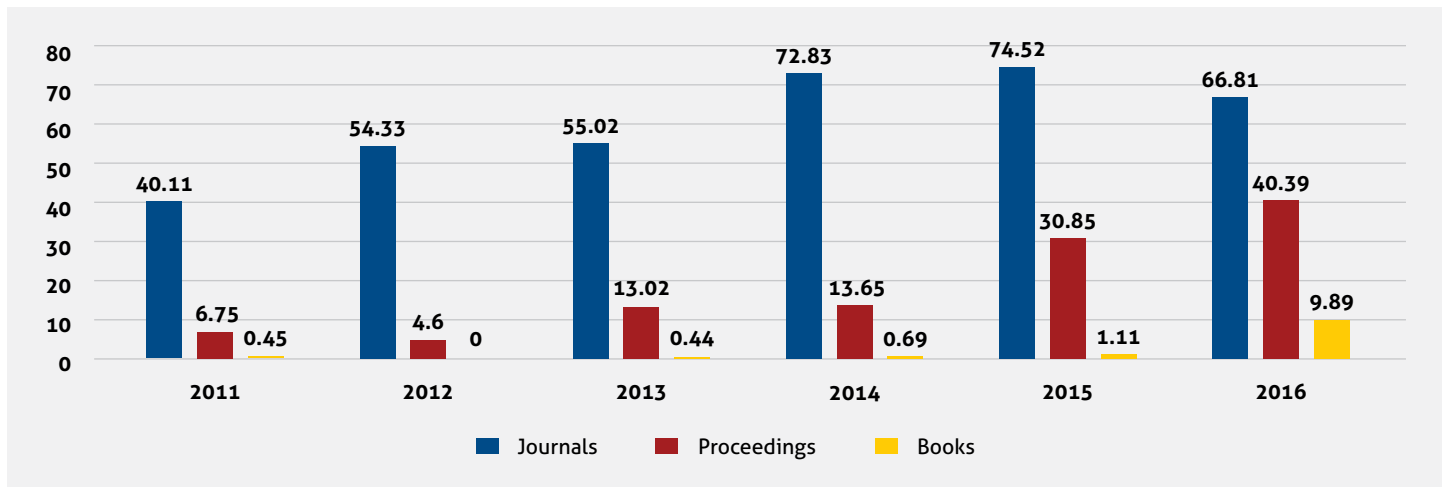


Figure 3: CUT total research output units by type of publication, 2011 – 2016

From figure 3, the following is evident:

- Journal publications:** In 2016, there was a decline of **10.35%** (7.71 units) relative to the **86% growth** experienced between **2011 – 2015**. The decline was mainly as a result of publication in journals identified by the DHET as predatory, and significant reduction in contribution of publications under CESH categories (1,9,10,13 & 14) within the Health Sciences.
- Conference proceedings** continue to be regarded as a sustained research output for the University, with a **30.9% growth** from 2015 – 2016. The biggest growth from 2015 – 2016 is in the Faculty of Engineering and Information Technology, which grew by **32%**, and by 40.6% for the period 2014 – 2015. It is evident that the Faculty of Engineering and Information Technology continues to benefit from this research outlet.
- Book units** increased by 790% due to changes in increased credit allocation on units per page for books introduced by the new policy.

POSTGRADUATE STUDIES

In 2017, the following postgraduate enrolments, compared to 2016, can be reported:

Qualification type – level description	2016	% column	2017	% column
Doctoral	163	1,04	166	0,91
Master's	294	1,87	368	2,02
Other	30	0,19	124	0,68
PG to master's	587	3,74	597	3,29
Undergraduate	14 634	93,16	16 918	93,09
Grand total	15 708	100,00	18 173	100,00
Total percentage of enrolments (Doctoral, master's, and postgraduate to master's)	1 044	6,65	1 131	6,22

Table 20: Postgraduate enrolments, 2016 & 2017

The following activities took place in support of the development of a Graduate School:

- first draft on the development of a Graduate School completed and presented to URIC (due to budget constraints, the position of Graduate Officer was vacant for an entire year);
- first Doctoral Summer School was presented on 15 and 16 November 2017;
- an integrated manual on postgraduate information was published (compiled by Prof. LOK Lategan);
- a book on how to do doctoral research was published (*Get set, get ready, go! Preparing for your doctoral studies and doctoral education* – LOK Lategan – Editor);
- a compendium on research education was published (*Research Education at the Central University of Technology* – EM Bitzer).

The following number of students graduated with postgraduate qualifications:

- Doctoral graduations 2016 = 19 (target = 19); 2017 = 16 (target = 16); and
- Master's graduations 2016 = 53 (target = 62); 2017 = 47 (target = 45).

The following master's and doctoral graduations can be reported for the period 2001 – 2017:

Year	M degrees	D degrees	M course work
2001	11	1	
2002	16	2	
2003	19	6	
2004	19	5	
2005	13	5	3*
2006	17	8	2*
2007	31	4	
2008	22	11	
2009	25	5	
2010	27	6	
2011	17	3	
2012	35	6	
2013	29	3	
2014	37	13	
2015	29	13	
2016	53	19	
2017	47	16	
TOTAL	447	126	5

Table 21: Completed postgraduate studies

Note 4: Course work programme discontinued.

Research and development initiatives

Research centres, units and groups

Senate approved a policy on research centres, units and groups on 25 August 2014, after which the policy was approved by Council 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 updated policy was approved at the end of 2015. The objectives of this Plan are directed at building a critical mass in research, and optimising opportunities to increase research outputs. The Plan identified the approved

research clusters and programmes as a meaningful vehicle to meet the outputs of the Plan by 2020. Strategy 2 of the Plan suggests meaningful structural support to achieve the desired outputs. One such a mechanism is research performed by a critical mass, which is organised into centres, units and groups. Two centres, 12 units and seven groups were approved in 2016.

The Research Development and Postgraduate Studies Section was leading a process to review these entities, to group relevant entities together and to realign the entities' focus with regional, national and international demands. As a result, the following research clusters and centres, units and groups were active in 2017:

Research Cluster 1	Objective	Research programmes per research entity – centre/unit/group
Technologies and Innovations for Sustainable Development	To investigate and apply technologies and/or innovation to foster and promote sustainable development.	Centre for Rapid Prototyping and Manufacturing (CRPM)
		Unit for Evolvable and Manumation Systems (RGEMS)
		Unit for Lean Construction and Sustainability
		Group for Sustainable Urban, Roads and Transport (SURT)
		Group of Soil Mechanics
		Unit for Sustainable Water and Environment
		Unit for Research on Informatics for Droughts in Africa (URIDA)
		Research Group in Engineering Education (AGREE)
Research Cluster 2	Objective	Research programmes per research entity – centre/unit/group
Quality of Health and Living	To apply scientific research in different disciplines to improve on the quality of health and living standard of humans, animals and plants.	Centre for Applied Food and Biotechnology (CAFBS)
		Unit for Drug Discovery Research
Research Cluster 3	Objective	Research programmes per research entity – centre/unit/group
Socio-Economic and Entrepreneur-ship Development	To do scientific research that empowers society for invaluable contributions to sustainable socio-economic development.	Unit for Public Management and Administration
		Unit for Enterprise Studies
		Unit for Tourism Destination and Management
		Unit for Research in Scholarship of Teaching and Learning (RSoTL)
		Unit for Scholarship in Research Education
		Unit for Foundations of Education
Unit for Mathematics, Science and Technology Education Research		

Table 22: CUT research clusters, programmes and aligned research entities

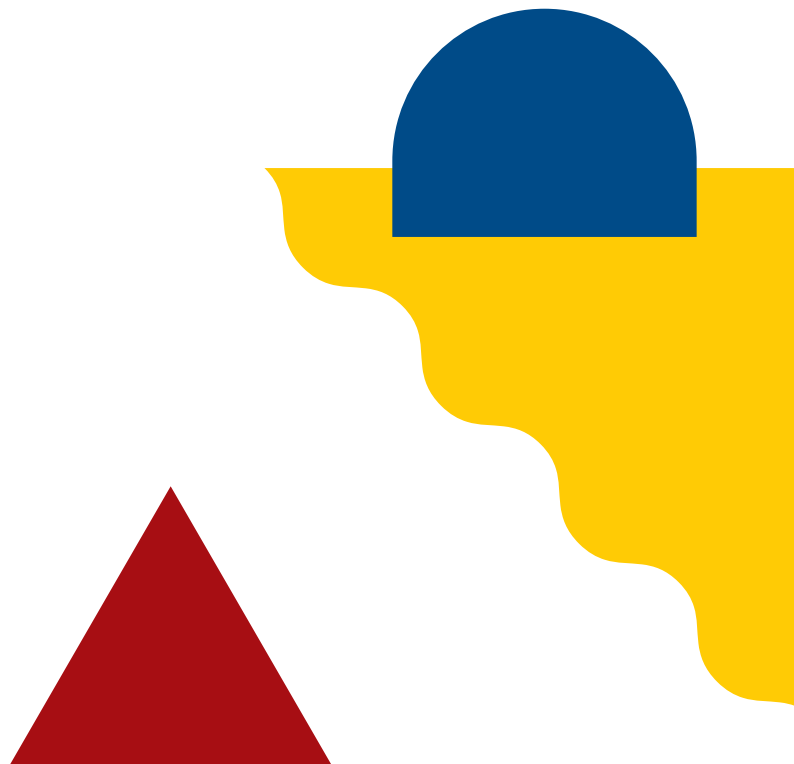
Joint research call: CUT and UFS Research Programme

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

In April 2017, a third round of calls, consisting of two tracks, was posted, and a total of 12 applications were received. Generally, the Selection Committee was impressed by the number, quality and maturity of the applications, and the increase in the collaboration between the UFS and CUT. The total amount of awards was R470000, with CUT contributing R245000 towards the project.

The following awards were made:

- Project on novel synthesis and chemical characterisation of gold, silver and platinum nanoparticles, and characterisation of their anti-fungal activity [Prof. Samson Mashele] was awarded R50000 (R25000 per institution).
- Project on deciphering the genomic response of *Mycobacterium smegmatis* to human steroid sex hormones [Prof. Khajamohiddin Syed] was awarded R100000 (R50000 per institution).
- Project on developing a framework for empowering postgraduate students to grasp the importance of different variables within a dissertation [Prof. James Swart] was awarded R50000 (R25000 per institution).
- Project on Development of a Sustainable Transportation Framework for Maluti-a-Phofung Local Municipality, South Africa [Prof. Mohamed Mostafa] was awarded R50000 (R25000 per institution).
- Project on assessment of climate change vulnerability and adaptation using ICTs and indigenous environmental knowledge: Case of 2 Free State informal settlements [Dr Muthoni Masinde] was awarded R50000 (R25000 per institution).
- Project on immunologic memory to hepatitis B vaccine following childhood vaccination [Mr Parks Makhoahle] was awarded R100000 (R50000 per institution).
- Project on STEAM education: the technological entrepreneur as artistic marketer [Prof. James Swart] was awarded R50000 (R25000 per institution).
- Project on re-engineering of civic infrastructure towards sustainable human settlements in the Free State: A case study of Kopanong Municipal area [Prof. Dillip Kumar Das] was awarded R30000 (R20000 to CUT, and R10000 to UFS), for purposes of completing the project.



Research Ethics and Integrity Committee

As part of the Senate-approved URIC, a working group to activate a Research Ethics and Integrity Committee (REIC) convened for the first time in 2014. The purpose of this Committee is to address 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, vulnerability; postgraduate studies; publications; stewardship; law; and corporate responsibility.

A Research Ethics and Integrity Policy Framework, together with a Constitution for the REIC, as a subcommittee of URIC, was approved by Senate in November 2016. As part of the core values of the University, the main purpose of the Framework is to promote responsible conduct of research, aligned with internationally acceptable norms and standards. During the implementation of the Framework, it is important that it be interpreted in the context of, and in line with, other relevant policies and guidelines relating to research, as well as academic ethics and integrity matters. The Policy Framework contains key elements for the Research Ethics and Integrity Code of Conduct for Researchers, ethics committees, structures and roles, and ethical approval processes.

The Senate-approved Research Ethics and Integrity Policy Framework was implemented during 2017. The following activities can be reported:

- REI community established; and
- documentation developed to guide process.

Training programme

A series of workshops was presented by the Research Development and Postgraduate Studies Section during 2017, including themes devoted to the research process, and research ethics and integrity. The Section also hosted a series of research workshops on postgraduate supervision, focusing on master's students, doctoral students, and supervisors.

The RD & PGS Section presented 18 workshops in 2017. A cumulative total of 785 staff and students attended.



- Get Ready, Get Set, Go! - On 17 May 2017 Prof. Laetus O.K Lategan, Director: Research Development and Postgraduate Studies launched another book titled: 'Get Ready, Get Set, Go!- Preparing for your doctoral studies and doctoral education'.

The following staff and student training workshops were conducted in 2017:

DATE	PRESENTER	Theme	Attendance
27 January	Bloemfontein – Prof. LOK Lategan	Policy on measurement of research outputs	60
24 February	Bloemfontein – Prof. LOK Lategan	How to be successful with your postgraduate studies	121
20-21 April	Bloemfontein – for Health Sciences (in collaboration with UFS) – Prof. EM Bitzer	Supervision training	12
25 April	Bloemfontein – Research and DAAD Workshop – Prof. LOK Lategan	Stepping stones in doctoral education	66
3 – 4 May	Welkom – Prof. EM Bitzer	Doctoral supervisors	22
9 May	Welkom – Research Workshop – Prof. LOK Lategan	Growing your research	28
17 May	Discussion on doctoral education – Prof. Lategan	Get Ready, Get Set, Go	15
6 – 7 June	Bloemfontein – series – Prof. Bitzer	Workshop for doctoral supervisors	36
23 June	Bloemfontein – NRF training for postgraduate students – Ms Z Louw	How to apply for funding	31
24 June	Bloemfontein – NRF workshop to support part-time doctoral students	How to apply for funding	07
27 June	Bloemfontein – NRF training for postgraduate students – Ms F Malamatsho (NRF)	Proposal writing	34
1 – 2 August	Bloemfontein – series – Prof. EM Bitzer	Workshop for doctoral candidates	38
5 – 6 September	Bloemfontein – series – Prof. EM Bitzer	Workshop for master’s candidates	48
14 September	Bloemfontein – Research Breakaway – Prof. LOK Lategan	CUT quest for research impact	56
19 September	Welkom – Research Workshop – Prof. Lategan	Growing your research profile	22
18 – 19 October	Welkom – series – Prof. Bitzer	Doctoral education	30
15 – 16 November	Bloemfontein – First Doctoral Education Summer School	Taking the next step	105
September – November	Bloemfontein – Training on analytical and statistical methods – CUT IT Department	Analytical and statistical training	159

Table 23: Staff and postgraduate student training

University publications – Journal for New Generation Sciences (JNGS) and Interim

The University publishes two journals, the *Journal for New Generation Sciences*, a DHET accredited journal, and the *Interim*, an in-house journal, to promote writing skills.

INTERIM

The *Interim* is the University's developmental journal to assist (a) our novice researchers and postgraduate students to publish their research papers, and by doing so, growing their publication writing skills; and (b) for mid-term and established researchers to publish preliminary research results. Very often doctoral students will also submit a paper after the completion of their studies to meet the requirements for graduation.

In 2017, we have decided to recruit the services of an external expert in publication writing to comment on papers, to provide some ideas for publishing papers in the *Interim*, and to generally advise on publication writing. A total of 13 papers were received. Six will be published in the *Interim 2017 16(1)*, whilst the rest will be reworked/updated to meet the publication standards and criteria.

The following statistics can be shared:

- First edition: 2002
- Number of editions up to 2016: 29
- Number of papers published: 327
- Number of participating authors: 524

From 2018, the *Interim* will be linked to a dedicated publication writing process facilitated by external experts.

Journal for New Generation Sciences

The *Journal for New Generation Sciences (JNGS)* publishes original research-based papers in the technological sciences. Technological science refers to the development of knowledge through application, and goes beyond disciplinary borders and subject-specific issues. The JNGS has as aim the development of use-oriented research. Use-oriented research is a combination of applied research and use-inspired basic research. The objective is for business, industry, government and social communities (known as the "quadruple helix") to benefit from the application of the research results. Use-oriented research should be executed in the context of Gibbons' Mode 2 Knowledge Production. This mode of knowledge production implies that knowledge production is produced in the context of application; that it is transdisciplinary in nature; and that it is reflective of, and responsive to societal needs.

The following statistics can be shared:

- First edition: 2003
- Editions published since 2003 to date: 37
- Papers: 403
- Authors: 680
- Participation (SA): 20 out of 26 public universities.

South African Research Chairs Initiative (SARChI) Chair

The CRPM was awarded a Research Chair in Medical Product Development under the DST's South African Research Chairs Initiative (SARChI) in Additive Manufacturing (AM) for Medical Devices, for the period 2015 to 2019 (first cycle), at a grant value of >R8 million over five years. The goal of this initiative is to increase research output and innovation in areas that are considered essential to the country's strategic growth and development.

Centre for Rapid Prototyping and Manufacturing (CRPM)

The CRPM had an exceptional year in 2017, with a record total income in July 2017 – the highest monthly income in 20 years. An increase in enquiries for medical implants was recorded, with the total medical-related income amounting to approximately R900 000.

The value of the 587 projects completed at the CRPM during 2017 was R5 284 071, which was an increase of 12% compared to 2016. Approximately 12 893 parts were manufactured for 499 industrial and research projects. Furthermore, a total of R946 755 was spent on 42 research projects, compared to R439 880 in 2016. The Collaborative Project in Additive Manufacturing (CPAM) was the largest contributor, generating R813 615.

The national 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. 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 (including VAT). The Department of Mechanical and Mechatronics Engineering and the CRPM collaboratively execute this project.

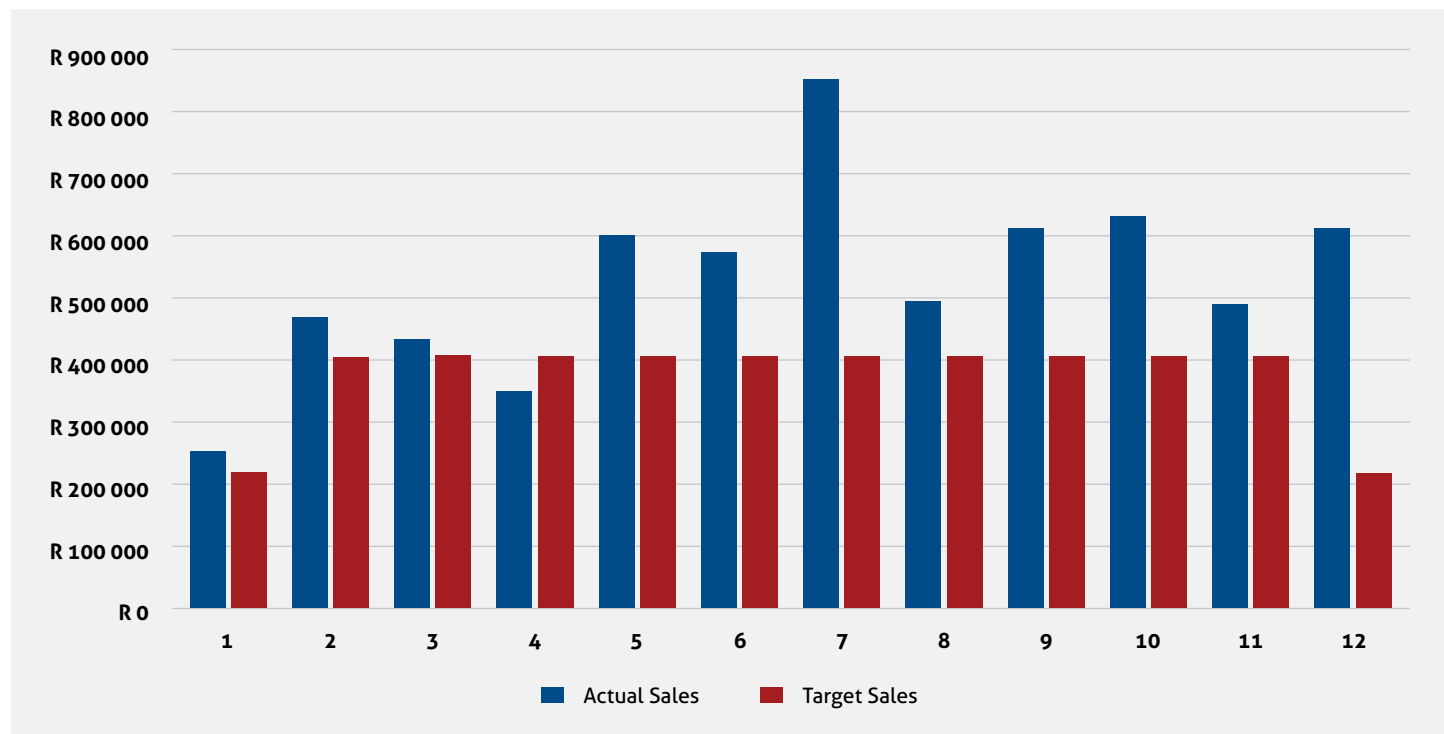


Figure 4: depicts the actual monetary monthly values compared to the targeted amounts for 2017.

Successful case studies completed by CRPM

TYLOR BAKER

This life-changing journey started when Dr Estie Meyer contacted Prof. Cules van den Heever and Mr Gerrie Booysen to deliver a presentation on how AM could benefit the Ear, Nose and Throat (ENT) Department at Groote Schuur Hospital. At the time, one of Dr Meyer's patients was a boy who was born without ears, and who had asked her for ear prostheses.

The team from CRPM played a vital role in the reconstructive surgery, as well as the development of the prostheses through AM technology (also known as 3-D printing). The CRPM designed and 3-D printed drill guides and moulds to accurately place the prosthetic implants and external prostheses, which completed the boy's facial features.

THREE DURBAN-BASED PATIENTS

On 28 June 2017, a team from the CUT CRPM, in co-operation with three surgeons from Durban; medical specialists; and the Life Chatsmed Gardens Hospital, gave three patients from Durban a new lease of life. The dignity of these patients, who had benign tumours that were slowly disintegrating their jawbones and disfiguring their faces, was restored by means of reconstructive surgery, during which they received titanium implants that were manufactured at the CRPM. The procedures also featured on Carte Blanche.

PATIENT FROM FREE STATE REGION

The CRPM invited media houses, partners and investors to an interactive session on 23 August 2017 to showcase the groundbreaking work that the University has done to date on medical product development through 3-D printing.

One of the beneficiaries, and a living testimony of the fundamental role the institution plays in changing the lives of ordinary citizens, is Mr Thabo Masa from Botshabelo, who lost

his ear in a traumatic situation. Mr Masa said that, after healing from the physical trauma, he suffered an emotional trauma, as he could not accept his loss, and could not face the community with one ear. *"I am happy that the CRPM Team managed to design a prosthesis ear that perfectly fits. I am no longer hiding in my beanie. I feel confident and normal again. I am very grateful, and ready to face the world."*

Product Development Technology Station (PDTs)

14 WIL students are currently 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. Table 31 provides a summary of the projects that were executed by the PDTs from 1 January 2017 to 31 December 2017:

Number of projects completed	First contact with clients	Quotations issued	Quotations accepted	Repeat clients	PDI	Female	Disabled	New SMEs
128	194	219	98	37	56	26	10	185

Table 24: Summary of projects executed by PDTs: 1 January 2017 to 31 December 2017

The Technology Innovation Agency (TIA) allocated R7 508 000 to the PDTs for the 2017/2018 financial year.

The PDTs is also the primary source of new intellectual property (IP) that is developed and registered on behalf of CUT.

Innovation

The following activities, aimed at promoting the innovation practices at the university, were recorded:

- The CUT Idea Generator was officially launched on 31 March 2017. This facility will serve as the vehicle to unlock the creative minds of students and staff, and to equip them to develop social and technological innovations into viable businesses. As we are aware, innovation and entrepreneurship are the most important elements, tools and key drivers in any country's economy growth. Hence, the purpose of the CUT Idea Generator is to develop innovators and entrepreneurs at CUT.



- On 31 March 2017, the University officially launched the idea generator, aimed at introducing a culture of innovation and entrepreneurship among its community. The idea generator is envisaged to serve as a developmental hub where students and staff will work in small groups in support of experts and lecturers to unlock their creative minds and develop their ideas into commercial products. Pictured are CUT Staff representing the CUT Idea Generator Unit, Community Engagement Unit (CE), Schools Advancement Academy (SAA) and YMF (Youth Managers Foundation (YMF)) engaging in the VALU-E Game learning experience.

- The Technology Innovation Agency (TIA) awarded a grant of R 500 000 to Prof. W du Preez for the further development of a polyurethane heart valve, in collaboration with the Robert WM Frater Cardiovascular Research Centre of the University of the Free State, led by Prof. Francis Smit. The TIA also awarded a grant of R400000 to Prof. I Yadroitsau for "Green Sustainable Additive Manufacturing of Medical Assistive Devices".
- A successful Entrepreneurship and Innovation Week took place from 29 to 31 March 2017. Students, staff and prominent leaders from industry, business and government participated in the event.
- The CUT Centre for Rapid Prototyping and Manufacturing (CRPM)'s first ISO 13485 surveillance audit was conducted from 30 to 31 March 2017. After a rigorous process, we are proud to announce that the CRPM maintained their ISO status. The work done by our team increased our compliance level, as the audit findings for 2017 revealed two minor findings, compared to four in 2016. The university is very proud of this achievement, and we intend to maintain the status quo throughout the continual improvement of the system.
- Changing Faces – Changing Lives (*Carte Blanche* coverage): On 28 June 2017, a team from the CRPM, in collaboration with three surgeons from Durban; medical specialists; and the Life Chatsmed Gardens Hospital, gave three patients from Durban a new lease of life. The dignity of these patients, who had benign tumours that were slowly disintegrating their jawbones and disfiguring their faces, was restored by means of reconstructive surgery during which they received titanium implants that were manufactured at the CRPM. *Carte Blanche* aired this story on 9 July 2017, and positive responses were received by the university. The Carl and Emily Fuchs Foundation funded the implants, whilst Life Healthcare sponsored the theatre time and consumables, as well as the hospital stay for the three patients.

- Three IP registrations were scouted and approved by the Intellectual Property Steering Committee, and were submitted to the patent attorneys for formal registration.
- The FabLab hosted high school learners during the launch of the National Science Week on 5 August 2017.
- A successful “Women in Business” initiative, aimed at addressing a keen interest of students in retail business, with speakers with experience in the food and clothing industries, was hosted on 21 September 2017 at the Idea-Gym (*i-Gym*).
- Several ideas of students and staff, as well as members of the community, were assessed and pipelined to the next level by linking entrepreneurs to technical advisors, academics, business developers and other units at CUT. To cope with the interest, weekly consultation sessions are now in place, and appointments can be made at the *i-Gym*.
- The TIA Seed Fund initiative has been satisfactorily managed by the TTO at CUT. 11 projects have been funded since 2014. Ten of these were completed successfully, and only one was terminated. CUT was granted funding for two more seed fund projects for the 2017/2018 financial year, to the value of R1,3 million.

Engagement

INTERNATIONALISATION

505 international students were enrolled at CUT, compared to the target of 500. A cumulative 38 international partnerships were forged in 2017, compared to the target of 35. Memoranda of Understanding (MoUs) were signed with (i) JAMK University, Finland; (ii) HAMK University, Finland; and (iii) University of Illinois, USA. Furthermore, 24 visiting academics were received by CUT, and seven programmes were developed, with internationalisation integrated into the curricula.

The university strengthened and enhanced its internationalisation drive through the following activities:

- **International student recruitment:** International student enrolment at CUT is low, which necessitated that we reconsider our recruitment approach. The new strategic approach includes: (i) attendance of and participation in international student fairs; (ii) targeting private schools in the SADC region to ensure that we recruit the best students to study at CUT in the SADC region and beyond; and (iii) building and maintaining strategic relations with South African missions in the region. Participation in the Namibia International Student Recruitment Fair was initiated by the International Office as a response to our low intake of international students, and was aimed at increasing the number of international students from Namibia at CUT. The university participated in expos in Lesotho, Botswana and Swaziland, in an attempt to address the dwindling number of SADC students at CUT.
- **Erasmus+ projects:** The University of Montpellier, the leader of the Erasmus+ Capacity Building YEBO! Project, nominated CUT as the co-leader of the Erasmus+ Capacity Building YEBO! Project in South Africa, and CUT participated in the project. The value of the project is €939.755 (approximately R16 million). As part of this agreement, CUT was also requested to participate in the institute’s joint degree programme for master’s and doctoral students. The envisaged duration of the project is 36 months (from October 2017 to October 2020). The objective of the project is to promote PhD studies by making them more attractive to this cohort of students. CUT received five Erasmus+ ICM scholarships for one PhD student to the University of Montpellier in France, and three master’s degree students and one staff member to the University of Uppsala in Sweden.

- **International visitors to the International Office:** The following international partners visited CUT during the period under reporting:
 - US Consul General in SA, Johannesburg (September 2017);
 - Eva Soderman, University of Uppsala (October 2017);
 - Eija Laitenan, HAMK – Finland (November 2017);
 - Jussi Halttunen, Rector, JAMK – Finland (November 2017); and
 - Richard Ray, Széchenyi István University (SZE) (November 2017).
- **SADC outreach – Botswana institutional visits:** The International Office and the DVC: Research, Innovation and Engagement combined efforts to arrange a SADC outreach programme to Botswana. This forms part of the Office's strategic focus to grow our SADC regional collaboration in response to the Internationalisation Strategy. The delegation visited the University of Botswana (UB), the Botswana Institute for Technology and Innovation (BITRI), and BIUST.
- **Memoranda of Understanding (MoUs) signed:** The following MoUs were signed:
 - faculty-based partnership between CUT and the University of Montpellier, France;
 - centre-based partnership between CUT and BITRI;
 - JAMK University, Finland;
 - HAMK University, Finland; and
 - University of Illinois, USA.



- JAMK University of Applied Science in Finland and CUT formalised the partnership. JAMK University of Applied Sciences is an international higher education institution with expertise in 8 different fields of study with more than 8000 students from over 70 countries. Sealing relations and shaking hands for a brighter future is Dr Jussi Halttunen, Rector at JAMK University of Applied Science and Prof. Henk de Jager, Vice-Chancellor and Principal of CUT.

INTERNATIONAL VISITORS TO CUT

The following international representatives visited CUT in 2017:

- Ms Céline Craeynest (Principal) and Ms Karolien Delabie (Teacher), Rhizo Hotel School Kortrijk, Belgium visited CUT in January 2017. Discussions were held regarding a possible short-term series of lessons in Hospitality; staff exchange; and inbound and outbound student exchange programmes, including internships or WIL at both institutions.
- Prof. Ulrich Holzbour, Aalen University of Applied Sciences, Germany visited CUT on an annual staff exchange in January 2017.

- Prof. Maitree Inprasitha and Dr Narumol Inprasitha, Faculty of Education, Khon Kaen University, Thailand visited the Faculty of Humanities, and held workshops in the CUT Department of Education, in January 2017.
- Dr Million Chauraya from the Midlands University, Zimbabwe visited the Faculty of Humanities' Department of Mathematics, Science and Technology Education, and held workshops, as from February 2017.
- Prof. Emmanuel Houze from the University of Montpellier, France visited the Faculty of Management Sciences' Department of Business Support Studies. He was part of the Erasmus+ ICM staff mobility programme.
- Ms Safora Johansen from Oslo and Akershus University College of Applied Sciences (HiOA), Norway visited CUT in February 2017 to finalise a joint programme between CUT and HiOA.
- In March 2017, Prof. McKinnon from the University of Indianapolis, USA reciprocated a visit by Prof. Friedrich-Nel, and discussed the possibility of formalising a relationship.
- A delegation from Thomas More University College visited CUT's International Office and Faculty of Humanities' Department Communication and Media Studies in March 2017.
- A delegation from the HO Polytechnic, Ghana visited CUT in May 2017 to sign an addendum in the Faculty of Management Sciences.
- Dr Eija Laitenan, an academic staff member from HAMK University in Finland, visited CUT on 6 November 2017. Dr Laitenan's visit came as a result of the Finnish Embassy matchmaking meeting that transpired in May 2017. She met with colleagues in the Faculty of Health and Environmental Sciences.
- Prof. Ulrich Klauck from Aalen University of Applied Sciences visited the Faculty of Engineering and Information Technology on a staff exchange from 13 to 14 June 2017.
- In June 2017, Ms Claire Murzeau from the University of Montpellier, France visited CUT on an Erasmus ICM staff mobility scholarship. She had meetings with the International Office, the Faculty of Management Sciences, and the Faculty of Engineering and Information Technology.
- The United States (US) Consul General in Johannesburg, South Africa visited CUT in August 2017. The purpose of the visit was to introduce the new Consul General, and to solidify the collaboration between CUT and the US Consulate Johannesburg.
- A delegation from the Botswana Institute for Technology Research and Innovation (BITRI) visited CUT in August 2017 to formalise an existing informal partnership in additive manufacturing with the CRPM.
- Mr Paul Matungamire, Deputy Dean: School of Commerce at Great Zimbabwe University, visited CUT in August 2017 as part of a staff exchange in the Faculty of Management Sciences.
- In September 2017, Dr Risto Korkia-Aho and a delegation from JAMK, Finland visited CUT to sign an official agreement.
- Dr Eva Soderman, an administrative staff member from Uppsala University, visited CUT in October 2017. Dr Soderman was on an outbound exchange to CUT.
- Dr Richard from SZE in Hungary visited CUT on a staff exchange programme in the Faculty of Engineering and Information Technology in October 2017.
- In November 2017, Prof. Joao Falcon from the University of Porto (U.PORTO) visited CUT's International Office to explore possibilities of an institutional collaboration.

CONFERENCES AND PARTNER UNIVERSITY VISITS

- **International Education Association of South Africa (IEASA):** Representatives of the CUT International Office attended the IEASA Conference, and actively participated with peers in the field of internationalisation. Attendance of the conference was aligned with the nature and scope of the office's work at CUT. Attending conferences such as the IEASA Conference has numerous benefits, the most salient of which are learning, capacity enhancement, knowledge sharing and networking.
- **European Association for International Education (EAIE):** The EAIE is acknowledged as Europe's leading centre of expertise, networking and resources in the internationalisation of higher education. The organisation provides various training opportunities, a networking environment, and a platform to share best practices with all delegates. The aim of EAIE is to advance international higher education in Europe and the rest of the world.
- **Africa Network for International Education (ANIE):** ANIE is committed to the advancement of high-quality research, capacity building, and advocacy in the internationalisation of higher education, with a primary focus on Africa. ANIE is a membership-based association that serves its members, their institutions and organisations, and others who are engaged in internationalisation. The Director: International Office attended, and chaired a keynote session at the ANIE Conference.
- **Southern African-Nordic Centre (SANORD) Conference,** from 27 November 2017 to 01 December 2017.

PARTNERSHIP MANAGEMENT

Signed memoranda of understanding (MoUs). The following MoUs were signed in 2017:

- Faculty-based partnership between CUT and the University of Montpellier, France.

- Centre-based partnership between CUT and the Botswana Institute for Technology and Innovation (BITRI).
- Partnership between CUT and JAMK University, Finland.
- Partnership between CUT; the University of Illinois, United States of America (USA); and the Agricultural Research Centre (ARC), South Africa.
- Institutional partnerships between CUT and the Academic Association Co-operation (ACA), Belgium.
- Institutional partnerships between CUT and Haramaya University (HU), Ethiopia.
- Addendum agreement to the faculty-based partnership between CUT and HO Polytechnic, Ghana.
- Faculty-based partnership between CUT and Oslo and Akershus University College of Applied Sciences (HiOA), Norway.

COMMUNITY ENGAGEMENT

Significant developments and achievements in community engagement:

- The Schools Advancement Academy (SAA), under the *Tshehetso ya Thuto Project*, presented Saturday classes to 133 Grade 8 to 11 learners at Dr Blok. Only one centre was chosen, due to budgetary constraints. The funding was not renewed in 2017, and as a result, the funds that were left over from 2016 were utilised for purposes of this project. Grade 12 learners were excluded from the programme, as they received tuition from the Department of Education.
- From 05 to 09 August 2017, Community Engagement (CE) was instrumental in convening the National Science Week (NSW), which was Commissioned by the Department of Science and Technology (DST), and funded by the NRF.
- The Unit signed an MoU with the Youth Management Forum (YMF) in June 2016. The YMF conducts career guidance and mentorship classes with learners from Dr Blok and

Bainsvlei Combined schools. Learners of these schools were also exposed to the Idea Generator, and participated in an entrepreneurial game, which they thoroughly enjoyed.

- Science 4 Fun classes, in the form of playing, were presented to Grade R learners of Nzame Primary School. Learners were taught about shapes, textures, tastes, sounds, visual stimuli, and smells. Plans are afoot to have training workshops for teachers, which would be held in conjunction with the Idea Generator.
- A hydroponic garden, arising from the Science 4 Fun workshops, is being installed at Nzame School, to illustrate root systems, fruit and vegetable cultivation, and recycling to learners.
- SEED, an international organisation, collaborated with CUT in arranging a training workshop on agriculture and entrepreneurship, which took place in July 2017. Many participants benefitted from this training.

Strengthening partnerships and funding opportunities

Various interventions took place with government, the private sector and NGOs. Most of these engagements resulted in concrete agreements. Furthermore, the university competed for the earmarked funding for special projects and interventions from the DHET, other than subsidy, and secured funding for the following:

- Agreements were signed with the ETDP SETA for staff training, including Women in Leadership; the Higher Education & Training HEAIDS Programme; and a two-year agreement with the Services SETA to teach 700 students in the BTech: Project Management programme.
- The WIL and Skills Development Unit, supported by CUTis, secured SETA funding from the BankSETA, ETDP SETA, CETA/CBE and MerSETA, to the benefit of 300 students.
- The DHET Teaching Development Grant Collaborative Project involves building a community of Engineering Educators in South Africa.

- Three New Generation of Academics Programme (nGap) academic positions, for Lecturers in IsiZulu, Medical Physics, and Mechanical Engineering Management were approved by the DHET for the third phase of nGAP.
- The DHET approved the proposal by the university for the competitive 2016/2017 and 2017/2018 DHET Infrastructure and Efficiency Grant allocations.

The university put measures in place to strengthen its partnerships and funding opportunities, including the appointment of a dedicated Funding Proposal Writer at CUTis. The relevant faculties and sections, in collaboration with CUTIS and Executive and Senior Management, achieved the following:

- The Contracting Programme, as sponsored by the Free State Provincial Government, which was also offered in Parys.
- The partnership between CUT and the Provincial Government continues to be strengthened. Once again, CUT was honoured to host the 2017 Well Done Function for 2016 Grade 12 learners in January 2017.



- Dr Pinky Mrwetyana congratulated the class of 2016 for giving Free State a good name in the sector at the annual Well-Done Function held in Boet Troskie Hall on 05 January 2017. Four of the top 10 learners, from left: Salemane Ngakana, Le-reng Secondary School in Ladybrand; Heidemarie Edeling, Eunice High School in Bloemfontein; Johan Champion, Sentraal High School in Bloemfontein; and Frank Letseleha, Thiboloha Special School in Phuthaditjhaba.

- An agreement was signed with the CBE that forms part of the Saturday School Initiative for Grade 12 Mathematics and Science learners. The value of the project is R0,498 million. Two master's degree students in Engineering at CUT were formerly part of this programme – a clear testimony to the fact that the programme is yielding laudable results for CUT.
- The relationship with CHIETA was resuscitated, with the submission for funding of CUT students in the form of bursary support for the 2017 academic year. A three-year contract with CHIETA, to fund students' work-integrated learning, was signed. The project value is R6,225 million.
- The merSETA Saturday School Discretionary Grant was received. This is a fundraising service provided by CUTIS to solicit and secure all the funding for the CUT Saturday School project for 2017.
- For the first time, merSETA agreed to fund WIL at CUT. A two-year contract was signed. 50 (P1 and P2) students per year will be funded for experiential training in Engineering.
- An agreement was signed with merSETA on 30 March 2017 for the extension of the merSETA Chair in Engineering Development at CUT for another three years.
- A three-year contract was signed with the Services SETA for the funding of students' work-integrated learning.
- MICTSETA and CUTIS entered into an agreement to administer and facilitate bursary funding for CUT students for the 2017 academic year.
- In April 2017, the Board of Bloemwater approved the proposal on the offering of short courses that was submitted by CUTIS and the relevant faculties.
- Dr EM Masinde, HoD of the Department of IT, was awarded the Security Water for Food (SWFF) Funding from the United States Agency for International Development (USAID), for 2017.
- The partnership between the Lejweleputswa Education District and CUT's Welkom campus was launched on 12 May 2017.
- The ETDP SETA awarded a Discretionary Grant to CUT on 8 August 2017, which is to be utilised for staff development and staff transformational projects.
- A relationship was established with the Environmental Health Department and Forum in the Free State Province, for purposes of assisting the Faculty of Health and Environmental Sciences with the current backlog in the placement of Environmental Health students.
- CUT, in partnership with the Free State Department of Education; the Free State DST; and the South African Agency for Science and Technology Advancement (SAASTA), co-hosted the National Science Week (NSW) from 5 to 11 August 2017.
- CUTIS and CUT secured BankSETA (2016/2017) WIL stipends, and bursaries from MICTSETA.
- CUT partnered with the University of the Free State (UFS), the Nelson Mandela University (NMU), the Industrial Development Corporation (IDC) and the Telkom Foundation in Enterprise Ecosystem Development.
- Following the submission of a proposal by CUT, we received confirmation on 20 September 2017 that the DST has approved the extension of the Collaborative Programme in Additive Manufacturing (CPAM) contract for the period April 2017 to March 2020.
- The DST approved the proposal to fund a Chair in Innovation and Commercialisation of Additive Manufacturing, provided that CUT guarantees participation/co-funding from an industry partner.
- CUT successfully bid to host the UNESCO African Engineering Week from 18 to 19 October 2017. The DST approved a grant for this event, which included the engagement of many school groups, and leaders from business and industry.

- On 14 October 2017, the South African Technology Network (SATN) pronounced that CUT's proposal for the establishment of an e-waste transfer station at the Welkom campus, which would be sponsored by the National Department of Environmental Affairs, has been approved on 14 October 2017.
- The Vice-Chancellor and Principal signed an agreement with the Maccaulei Learning Academy on 8 September 2017, extending the current agreement for a further three years.
- For the first time at a university, and the first time in the Free State, CUT successfully hosted the NRF National Awards Function on 14 September 2017, which function was attended by the Minister of the DST.

Significant developments and achievements in research, technology and innovation

In total, the Research Development and Postgraduate Studies Section had R49,3 million available for research activities in 2017. Funding was received from the following sources:

- CUT approved an allocation of R14 million to support the strategic and operational budgets of the University's Research Development and Postgraduate Studies Section. Another R 5 000 000 was awarded for new master's and doctoral grants.
- A total amount of R9941 466 was available from the DHET Research and Development (R&D) Grant for research development projects. Based on a financial audit, R 9 092 797 was spent. Unspent funds amount to R 848 668. A plan to spend the unspent funds in 2017/8 was submitted to the DHET.
- The NRF remains the largest funder of research activities. R20 273 885 was made available to CUT for research in 2017.
- The PA and A Malan Trust availed R130 000 in support of the University's Research and Development Plan.

Table 25 indicates the sources and amounts of funding that were available for research at CUT during 2017:

Agency	Funding objective	Amount
CUT Research Funds	Operational research funds	R 14 000 000
CUT Postgraduate Grants (new)	Grants for master's and doctoral students	R 5 000 000
DHET R & D Grant (2016/2017, phase-out and additional funding)	Support research capacity building	R 9 941 466
NRF	Support research projects and student training	R 20 273 885
PA & A Malan Trust	Studies in Art and project on Research Education	R 100 000
Total		R 49 315 351

Table 25: Research funding 2017

The R & D Section has a budget of R49315 351 available for research activities.

The following funding was received from the NRF for the period January 2017 to December 2017:

NRF funding 2017		
Programme	Number of awards	Award amount
Staff awards: 49 (35 males and 14 females) (50.19% of total NRF funding)		
European Research Council Partnership (1 M)	1	R 1 500 000,00
Incentive funding for rated researchers (9 M 1 F)	10	R 640 000,00
Indigenous knowledge systems (1 F)	1	R 797 297,63
Competitive support - unrated researchers (1 M)	1	R 300 650,00
Knowledge interchange and collaboration (11 M 5 F)	16	R 403 000,00
National Equipment Fund (1 M)	2	R 263 667,47
TWAS Postdoctoral Fellowship Programme (1 M)	1	R 318 893,00
SA Research Chairs (1 M)	1	R 1 768 959,46
Sabbatical Grant (1 M)	1	R 196 880,00
Research Advancement Career Award (1 F)	1	R 450 000,00
Thuthuka (7 M 5 F)	12	R 3 256 537,83
nGap (1 M 1 F)	2	R 60 000,00
Early Career Researchers from United Kingdom (1 M)	1	R 220 000,00
Subtotal		R 10 175 885,39
Student awards - 202 (55% of total funding)		
SKA	1	R 95 000,00
S&F - Innovation Master's Scholarships	7	R 630 000,00
S&F - Scarce Skills Master's Scholarships	4	R 360 000,00
S&F - Scholarships Block Grant Master's	2	R 100 000,00
S&F - Innovation Doctoral Scholarships	7	R 840 000,00
S&F - Scarce Skills Doctoral Scholarships	6	R 720 000,00
NRF- Free Standing Master's Scholarship	1	R 50 000,00
BTech Block Grants	144	R 7 303 000,00
Subtotal	172	R 10 098 000,00
NRF awarded		R 20 273 885,40

Table 26: NRF awards 2017

For 2017, R10 825 260 was awarded to master's and doctoral degree students and postdoctoral fellows. This can be compared to the period 2014 to 2016, during which R15 621 334 was awarded to master's and doctoral students and postdoctoral fellows:

Year	M students	D students	Postdocs
2017	R 6 547 880	R 3 337 380	R 940 000
TOTAL			R 10 825 260

Table 27: Scholarships, 2017

NOTE: These awards include R2 709 310 for tuition fees.

Year	M students	D students	Postdocs
2014	R 957 880	R 628 494	R 880 000
2015	R 1 972 340	R 1 147 030	R1 000 000
2016	R 5 229 930	R 3 205 660	R 600 000
Total	R 8 160 150	R 4 981 184	R 2 480 000
GRAND TOTAL			R 15 621 334

Table 28: Scholarships, 2014 – 2016

- From the 2017 awards, we can note the following:
 - Total value of 2017 grants = R 10 825 260
 - Value of postdoctoral awards = R 940 000
 - Total value of 2017 M & D grants = R 9 885 260
 - Value of *renewal* of postgraduate grants:
 - January – December 2017 = R 1 265 000 and
 - June 2017 – June 2018 = R 2 245 000.
 - Total value = R 3 510 000.
 - Value of new postgraduate grants:
 - January – December 2017 = R 4 632 070 and
 - June 2017 – June 2018 = R 1 743 190.
 - Total value = R 6 375 260.

Strategic partnerships with business, industry and government

In 2017, the Centre for WIL and Skills Development, through agreements entered into with seven Sector Education and Training Authorities (SETAs), such as the Transport SETA (TETA), Chemical Industries SETA (CHIETA), Health and Welfare SETA (HWSETA), BankSETA, Manufacturing, Engineering and Related Services SETA (MerSETA), Construction SETA (CETA/CBE), and Education, Training and Development Practices SETA (ETDP SETA), raised a total of approximately R15.82 million from these SETAs, assisting 564 students with placement stipends, internships and bursaries (see Figure 1; Table 24 and Figure 2 below).

SETA	Funding	Students
CHIETA	R 6 250 000	125
MERSETA	R 3 200 000	100
ETDPSETA	R 2 400 000	160
HWSETA	R 1 869 000	79
CETA-CBE	R 1 371 000	50
BankSETA	R 441 000	10
TETA	R 296 000	40
TOTAL	R 15 827 000	564

Table 29: Students benefitting from SETA funding in 2017

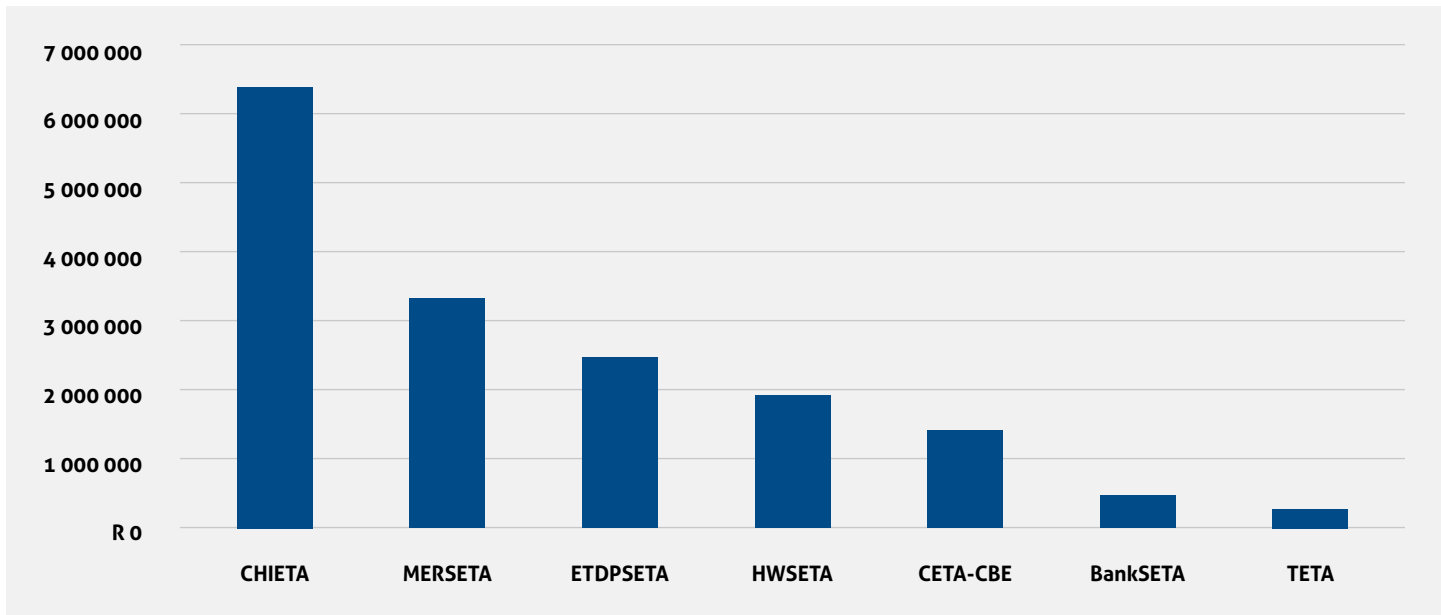


Figure 5: Funding received from SETAs in 2017

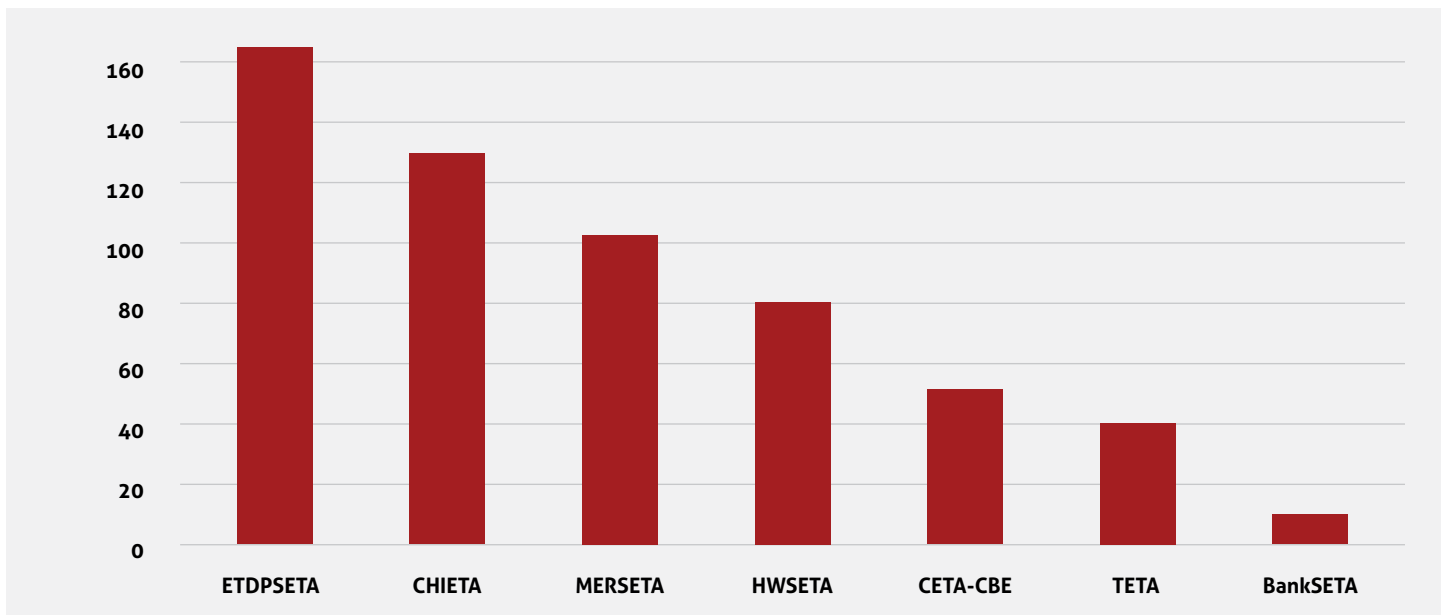


Figure 6: Number of students assisted by different SETAs

Enrolment and Performance Analysis (Statistics)

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 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 September 2014. The targets for 2017 are reflected as per the agreement in this report.

In 2017, CUT enrolled 18 173 students (including occasional students), which is 3 200 more than (i.e. 21,37% in excess of) the number agreed upon with the DHET, whilst the 2016 student headcount of 15 708 exceeded the DHET target of 14 240 by 1 468 (i.e. 10,31% in excess). In as far as first-time entering students at undergraduate level are concerned, the headcount in 2017 indicated a shortfall of 80 students (i.e. 1,93% below the required target of 4 137), compared to the headcount in 2016, which indicated a shortfall of 23 students (0,59% below the required target of 3 945).

The following set of tables 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.

Please note: The data in the tables of this section were extracted from the Higher Education Data Analyser (HEDA) in January 2018.

STUDENT HEADCOUNT ENROLMENT BY QUALIFICATION LEVEL, 2016 – 2017

At the time of the fourth quarter reporting cycle, 4058 first-time entering undergraduate students were registered at CUT, which is 98.09% of the DHET's target of 4 137 students. The overall headcount figure was 18157 students, which is 121.56% of the DHET's target of 14937 students. An analysis that was conducted revealed that a large number of students only registered for one or two modules. Furthermore, due to the developments around the #Fees-Must-Fall campaign at the university in 2016, the policy on academic exclusions was not applied. It is envisaged that the student numbers will normalise in 2018. To date, there

are 510 international students at CUT, including 31 occasional international students, which represents 2,83% of the total student population, compared to the 2020 target of 10%.

Table 30 indicates the headcount enrolment by qualification type. The institution has exceeded the overall DHET headcount target for 2017 by 20,54%. In terms of the qualification level breakdown, negative deviations of -1,93% and -29,27%, respectively, were experienced in first-time entering undergraduate students, and postgraduate to master's degree students, from the set targets for 2017.

Qualification level	Headcount actuals 2016	DHET headcount target 2017	2017 actual performance*	Deviation
First-time entering undergraduate students	3 922	4 137	4 057	-1,93%
Total undergraduate students	14 634	13 516	16 918	25,17%
Postgraduate to master's degree level	587	844	597	-29,27%
Master's	294	460	368	-20,00%
Doctorates	163	153	166	8,50%
Total postgraduate students	1 126	1 457	1 131	-22,37%
Total enrolment	15 708	14 973	18 049	20,54%

Table 30: Student headcount enrolment by qualification level, 2016 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. NOTE 2: The 2017 actual performance* total enrolment figure of 18049 students does not include 124 occasional students.

STUDENT HEADCOUNT ENROLMENT INTO FIRST-YEAR PROGRAMMES (FOUNDATION PROGRAMMES), 2016 – 2017

Table 31 indicates the headcount enrolment into first-year (foundation) programmes. The institution has exceeded the overall DHET headcount target for 2017 by 45,99%.

Projected student headcount intake into first-year (foundation) programmes	Headcount actuals 2016	DHET headcount target 2017	2017 actual performance	Deviation
Projected student headcount intake into first-year (foundation) programmes	357	287	419	45,99%

Table 31: Student headcount enrolment into first-year programmes (foundation programmes), 2016 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

STUDENT HEADCOUNT ENROLMENT BY MAJOR FIELD OF STUDY, 2016 – 2017

Major field of study	Academic year 2016				Academic year 2017			
	DHET headcount target	Actual headcount	Percentage	Deviation	DHET headcount target	Actual headcount	Percentage	Deviation
BUS/MAN	3 435	3 750	24,12%	9,18%	3 532	4 303	23,88%	21,83%
EDUCATION	2 246	2 830	15,77%	25,99%	2 344	3 613	18,01%	54,15%
OTHER HUMANITIES	2 042	1 469	14,34%	-28,04%	2 166	1 166	9,34%	-46,17%
SET	6 518	7 659	45,77%	17,50%	6 931	8 853	48,63%	27,74%
UNCLASSIFIED	0	0	0,00%	0,00%	0	237	0,00%	0,00%
Total	14 240	15 708	100,00%	10,31%	14 973	18 173	100,00%	21,37%

Table 32: Student headcount enrolment by major field of study, 2016 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. NOTE 2: "Unclassified" means that students did not report their major field of study.

The table above indicates that, in 2017, the largest proportion of students were enrolled in the SET field of study (48,63%), followed by those enrolled in the field of BUS/MAN (23,88%), then EDUCATION (18,01%), and finally OTHER HUMANITIES (9,34%). Between 2016 and 2017, the majority of students were enrolled in the SET field.

It should be noted that, in terms of the percentage breakdown of the major fields of study, it is evident that, when comparing the 2016 figures to those of 2017, decreases were experienced in two of these fields: In BUS/MAN and OTHER HUMANITIES, the proportion has decreased from 24,12% in 2016, to 23,88% in 2017, and from 14,34% in 2016, to 9,34% in 2017, respectively. Simultaneously, in SET and EDUCATION,

the proportions have increased from 45,77% in 2016, to 48,63% in 2017, and from 15,77% in 2016, to 14,47% in 2017, respectively.

Finally, it is concerning that, over a period of two years, a negative deviation was experienced in the OTHER HUMANITIES field of study, whilst a positive deviation was experienced in the other fields.



PERCENTAGE DISTRIBUTION OF STUDENT HEADCOUNT ENROLMENT BY POPULATION GROUP AND MAJOR FIELD OF STUDY, 2015 – 2017

HEADCOUNT												
Major field of study	AFRICAN (%)			COLOURED (%)			INDIAN (%)			WHITE (%)		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
BUS/MAN	25,07%	24,78%	24,36%	19,33%	20,96%	21,95%	15,58%	24,34%	22,22%	8,80%	11,38%	10,84%
EDUCATION	18,12%	18,84%	20,62%	15,21%	17,99%	18,98%	7,07%	3,95%	4,17%	5,72%	5,86%	6,00%
OTHER HUMANITIES	10,88%	9,36%	6,31%	14,19%	11,34%	7,38%	5,62%	9,21%	5,95%	9,90%	8,37%	8,12%
SET	45,93%	47,03%	47,37%	51,27%	49,72%	50,66%	71,74%	62,50%	67,06%	75,59%	74,39%	74,25%
UNSPECIFIED	0,00%	0,00%	1,34%	0,00%	0,00%	1,02%	0,00%	0,00%	0,60%	0,00%	0,00%	0,79%
GRAND TOTAL	12 705	14 300	16 845	451	441	464	46	38	42	991	929	822

Table 33: Percentage distribution of student headcount enrolment by population group and major field of study, 2015 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. Note 2: "Unclassified" means that students did not report their major field of study.

The table above indicates the percentage of CUT students by population group and major field of study from 2015 to 2017. For the period 2015 to 2017, the headcount enrolment pattern is consistent with the African population in the majority, followed by the White population group, then the Coloured population group, and finally the Indian population group.

In terms of distribution per major field of study, the pattern is not the same as in the case of the population groups; however, there is consistency. For the period 2015 to 2017, the highest proportion of the African population were enrolled in BUS/MAN, EDUCATION and OTHER HUMANITIES, with the exception of 2016, when the Coloured population group was in the majority.

Finally, from 2015 to 2017, the White population group was in the majority in the SET field of study. They accounted for 75,99% in 2015; 74,39% in 2016; and 74,25% in 2017, followed by the Indian population group, then the Coloured population group, and finally the African population group.



UNDERGRADUATE AND POSTGRADUATE STUDENT ENROLMENT AND GRADUATION RATES BY MAJOR FIELD OF STUDY, 2016 – 2017

Major field of study	Qualification type	Calendar year 2016			Calendar year 2017		
		Actual headcount	Graduates	Graduation rate	Actual headcount*	Graduates	Graduation rate
BUS/MAN	Postgraduate	71	24	33,45%	89		0,00%
	Undergraduate	3 669	918	25,03%	4 188		0,00%
	Occasional	10	0	0,00%	25		0,00%
BUS/MAN total		3 750	942	25,12%	4 303		0,00%
EDUCATION	Postgraduate	676	402	59,49%	689		0,00%
	Undergraduate	2 154	422	19,60%	2 918		0,00%
	Occasional	0	0	0,00%	6		
EDUCATION total		2 830	824	29,13%	3 613		0,00%
OTHER HUM	Postgraduate	35	5	14,29%	33		0,00%
	Undergraduate	1 432	407	28,46%	1 128		0,00%
	Occasional	3	0	0,00%	4		0,00%
OTHER HUM total		1 469	412	28,07%	1 166		0,00%
SET	Postgraduate	262	38	14,51%	318		0,00%
	Undergraduate	7 380	1 506	20,41%	8 451		0,00%
	Occasional	17	0	0,00%	83		0,00%
SET total		7 659	1 544	20,16%	8 853		0,00%
Unclassified	Postgraduate	0	0	0,00%	1		
	Undergraduate	0	0	0,00%	232		
	Occasional	0	0	0,00%	4		
Unclassified total		0	0	0,00%	237		
DHET targets		14 240	3 442	24,17%	9 327		24,5%
Actual performance		15 708	3 723	23,70%	18 173		0,00%
Deviation (%)		10,31%	8,16%	-1,94%	94,84%		

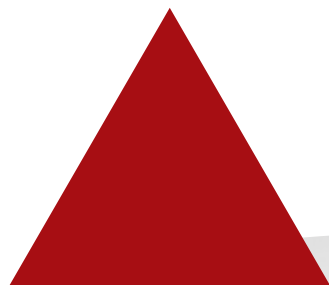
Table 34: Undergraduate and postgraduate student enrolment and graduation rates by major field of study, 2016 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. NOTE 2: "Unclassified" means that students did not report their major field of study.

NOTE 3: The 2017 graduation cycle is not yet completed. NOTE 4: The 2017 actual headcount* total of 18 173 students includes 124 occasional students.

Table 34 represents the undergraduate and postgraduate student enrolment differentiation, as well as the changes in graduation rates by major field of study, for the academic years 2016 and 2017. In general, there was a decline in graduation rates during this period (2016 – 2017). The noticeable changes to be reported are discussed below:

- In the BUS/MAN field of study, the graduation rate for postgraduate students decreased, from 33,45% in 2016, to 12,85% in 2017, and decreased by 5.04 percentage points for undergraduate studies (from 25,3% in 2016, to 19,99% in 2017).
- In the EDUCATION field of study, the graduation rate for postgraduate students decreased, from 59,49% in 2016, to 41,1% in 2017. A minor decrease of 0.52 percentage points was experienced for undergraduate studies (from 19,60% in 2016, to 19,08% in 2017).
- In the OTHER HUM field of study, the graduation rate for postgraduate students increased, from 14,29% in 2016, to 24,06% in 2017, and decreased by 1.57 percentage points for undergraduate studies (from 28,46% in 2016, to 26,89% in 2017).
- In the SET field of study, the graduation rate for postgraduate students decreased, from 14,51% in 2016, to 12,31% in 2017. A decrease of 2.01 percentage points was experienced for undergraduate studies (from 20,41% in 2016, to 18,40% in 2017).
- The institution has surpassed the DHET graduate headcount target of 3584 for undergraduate students by 176 graduates. This translates to an increase of 4,91%.
- For the university as a whole, the overall graduation rate decreased by 3.02 percentage points from 2016 to 2017 (from 23,70% in 2016, to 20,68% in 2017). This implies that the university did not meet the DHET target of 40,22%.



STUDENT PERFORMANCE AND FULL-TIME EQUIVALENTS (FTEs) ACROSS THE MAJOR FIELDS OF STUDY BY GENDER, 2017

Major field of study		2016		2016 total	2017		2017 total
		Female	Male		Female	Male	
BUS/MAN	Pass rate	76,77%	73,34%	75,39%	69,44%	64,53%	67,49%
	FTE	1 433	966	2 399	1 505	998	2 503
EDUCATION	Pass rate	89,57%	83,97%	87,44%	83,37%	77,41%	81,08%
	FTE	1 780	1 098	2 878	1 951	1 214	3 165
OTHER HUMANITIES	Pass rate	84,20%	75,51%	80,86%	77,65%	71,70%	75,28%
	FTE	1 052	656	1 708	821	544	1 365
STEM	Pass rate	80,84%	70,59%	74,71%	75,01%	65,37%	69,34%
	FTE	2 164	3 228	5 392	2 470	3 531	6 001
UNSPECIFIED	Pass rate				72,95%	68,20%	71,09%
	FTE				115	74	189
DHET pass rate target				76,08%			76,60%
Overall pass rate		82,90%	74,05%	78,65%	76,45%	68,11%	74,24%
Pass rate deviation (%)				3,38%			
FTE enrolment DHET target				11 093			11 549
Total FTEs		6 429	5 948	12 377	6 862	6 360	13 222
FTE deviation (%)				11,58%			14,49%

Table 35: Student performance and full-time equivalents (FTEs) across the major fields of study by gender, 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. NOTE 2: "Unspecified" means that students did not report their major fields of study.

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

- CUT's overall pass rate decreased from 78,65% in 2016, to 74,24% in 2017.
- The overall decrease in pass rate is also evident across all the major fields of study.
- Although there was an overall decrease in the pass rate, females performed better than their male counterparts in both academic years (2016 and 2017).
- The 2016 and 2017 FTE enrolment DHET targets were exceeded by the institution – a deviation of 11,58% was experienced in 2016, whilst a deviation of 14,49% was experienced in 2017.

PASS RATES BY MAJOR FIELD OF STUDY AND POPULATION GROUP, 2016 – 2017

Major field of study	African		Coloured		Indian		White	
	2016	2017	2016	2017	2016	2017	2016	2017
BUS/MAN	75,61%	67,44%	69,10%	66,35%	64,91%	89,42%	75,27%	68,24%
EDUCATION	87,47%	81,16%	87,92%	82,12%	100,00%	82,73%	83,59%	70,19%
OTHER HUM	80,59%	75,17%	81,91%	80,78%	52,85%	60,43%	88,37%	75,25%
SET	74,19%	68,90%	74,27%	68,18%	82,21%	59,11%	79,93%	76,38%
Unspecified	0,00%	71,25%	0,00%	65,56%	0,00%	77,75%	0,00%	63,09%
Grand total	78,59%	72,35%	77,38%	72,38%	76,91%	66,55%	80,33%	74,24%

Table 36: Pass rates by major field of study and population group, 2016 – 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited. NOTE 2: "Unspecified" means that students did not report their major fields of study.

Table 36 provides the annual changes in student pass rates across the major fields of study by population group. The following observations are noteworthy:

- The overall decrease in success rate is also evident across all the population groups.
- Although there was an overall decrease in the success rate across all the population groups, the White population group performed better than the other population groups.

Table 37 presents the first-time entering totals for student cohort, retention and graduate rates over time for three-year undergraduate qualifications. The 2012 cohort is used for purposes of interpreting 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 1971 student cohort enrolled in 2012, 1 479 students (i.e. 75%) were

retained in Year 1 (i.e. 2013); 814 students (i.e. 41,3%) were retained in Year 2 (i.e. 2014); etc. From this 2012 cohort, 41,6% of the students have graduated to date, whilst 54,4% are reported as dropouts (including stop-outs) to date. From that very same 2012 cohort, 19,13% graduated in the minimum duration of the qualifications for which they have enrolled; 14,71% graduated in the minimum time plus one year; 7,61% graduated in the minimum time plus two years; etc. This should provide a clear illustration, and assist in the interpretation of Table 11 above. It should be noted that the graduation cohort only includes the following qualifications: diploma, 360-credit diplomas, national diplomas, professional first bachelor's degrees (three years), and undergraduate diplomas or certificates (three years.).

Tables 33 to 40 below provide the gender distribution of students and permanent instructional/research staff members in the different faculties per campus for 2017.

SUMMATIVE VIEW OF STUDENT GRADUATION AND RETENTION RATES FOR THREE-YEAR UNDERGRADUATE QUALIFICATIONS, 2012 – 2017

Cohort retention							
Cohort year	Retained after			Cumulative			Dropouts to date
	Cohort headcount	Year 1	Year 2	Year 3	Year 4	Graduates to date	
2012	1 971	1 479 75,0%	814 41,3%	398 20,2%	154 7,8%	819 41,6%	1 072 54,4%
2013	2 208	1 520 68,8%	784 35,5%	375 17,0%	335 15,2%	765 34,6%	1 115 50,5%
2014	2 288	1 607 70,2%	840 36,7%	736 32,2%	269 11,8%	493 21,5%	1 217 53,2%
2015	2 094	1 477 70,5%	1 311 62,6%	556 26,6%	0 0,00%	2 0,09%	1 005 48,0%
2016	2 538	1 823 71,8%	1 491 58,7%	0 0,00%	0 0,00%	1 0,03%	716 28,2%
2017	2 665	2 051 77,0%	0 0,00%	0 0,00%	0 0,00%	0 0,0%	523 19,6%
Cohort graduation							
Cohort year	Cohort headcount	Min. time	Min. + 1	Min. + 2	Min. + 3	Min. +3>	Total (%) graduates
2012	1 971	377	290	150	2	0	41,6%
2013	2 208	490	275	0	0	0	34,6%
2014	2 288	493	0	0	0	0	21,5%
2015	2 094	2	0	0	0	0	0,1%
2016	2 538	1	0	0	0	0	0,0%
2017	2 665	0	0	0	0	0	0,0%

Table 37: Summative view of student graduation and retention rates for three-year undergraduate qualifications (diplomas, 360-credit diplomas, national diplomas, professional first bachelor's degrees (three years), and undergraduate diplomas or certificates (three years), 2012 – 2017.

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

STUDENT PROFILE FOR THE FACULTY OF MANAGEMENT SCIENCES PER CAMPUS, 2017

Campus grouping	African		Coloured		Indian		White		2017 total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	57,23%	37,21%	1,63%	1,22%	0,09%	0,15%	1,40%	1,07%	3656
Welkom	64,73%	34,30%	0,45%	0,37%	0,00%	0,00%	0,07%	0,07%	1094

Table 38: Student profile for the Faculty of Management Sciences per campus, 2017.

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

PERMANENT INSTRUCTIONAL/RESEARCH STAFF PROFILE FOR THE FACULTY OF MANAGEMENT SCIENCES, 2017

Staff	African		Coloured		Indian		White		2017 total staff headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	13	22	4	0	1	1	30	13	84
Percentage	15,48%	26,19%	4,76%	0,00%	1,19%	1,19%	35,71%	15,48%	100,00%

Table 39: Permanent instructional/research staff profile for the Faculty of Management Sciences, 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

STUDENT PROFILE FOR THE FACULTY OF HEALTH AND ENVIRONMENTAL SCIENCES PER CAMPUS, 2017

Campus grouping	African		Coloured		Indian		White		2017 total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	53,22%	31,37%	2,16%	0,81%	0,16%	0,11%	7,57%	4,60%	1 849

Table 40: Student profile for the Faculty of Health and Environmental Sciences per campus, 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

PERMANENT INSTRUCTIONAL/RESEARCH STAFF PROFILE FOR THE FACULTY OF HEALTH AND ENVIRONMENTAL SCIENCES, 2017

Staff	African		Coloured		Indian		White		2017 total staff headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	8	9	2	0	0	1	21	9	50
Percentage	16,00%	18,00%	4,00%	0,00%	0,00%	2,00%	42,00%	18,00%	100,00%

Table 41: Permanent instructional/research staff profile for the Faculty of Health and Environmental Sciences, 2017

Source: HEDA, extracted in January 2018. Note 1: 2017 data is not audited.

STUDENT PROFILE FOR THE FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY PER CAMPUS, 2017

Campus grouping	African		Coloured		Indian		White		2017 total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	25,05%	64,83%	0,50%	2,21%	0,06%	0,35%	0,39%	6,61%	5 161
Welkom	35,75%	63,41%	0,28%	0,28%	0,00%	0,00%	0,00%	0,28%	358

Table 42: Student profile for the Faculty of Engineering and Information Technology per campus, 2017

Source: HEDA, extracted in January 2018. Note 1: 2017 data is not audited.

PERMANENT INSTRUCTIONAL/RESEARCH STAFF PROFILE FOR THE FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY, 2017

Staff	African		Coloured		Indian		White		2017 total staff headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	10	31	1	1	0	4	15	34	96
Percentage	10,42%	32,29%	1,04%	1,04%	0,00%	4,17%	15,63%	35,42%	100,00%

Table 43: Permanent instructional/research staff profile for the Faculty of Engineering and Information Technology, 2017

Source: HEDA, extracted in January 2018. Note 1: 2017 data is not audited.

STUDENT PROFILE FOR THE FACULTY OF HUMANITIES PER CAMPUS, 2017

Campus grouping	African		Coloured		Indian		White		2017 total headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Bloemfontein	54,44%	39,60%	1,89%	1,47%	0,10%	0,00%	1,58%	0,93%	2 917
Welkom	62,02%	35,66%	0,97%	0,38%	0,00%	0,11%	0,48%	0,38%	1 859

Table 44: Student profile for the Faculty of Humanities per campus, 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

PERMANENT INSTRUCTIONAL/RESEARCH STAFF PROFILE FOR THE FACULTY OF HUMANITIES, 2017

Staff	African		Coloured		Indian		White		2017 total staff headcount
	Female	Male	Female	Male	Female	Male	Female	Male	
Headcount	14	32	1	2	2	1	17	6	75
Percentage	18,67%	42,67%	1,33%	2,67%	2,67%	1,33%	22,67%	8,00%	100,00%

TABLE 45: Permanent instructional/research staff profile for the Faculty of Humanities, 2017

SOURCE: HEDA, extracted in January 2018. NOTE 1: 2017 data is not audited.

This concludes a profile of the institution in the form of an in-depth analysis of its performance, size and shape.



Institutional — Advancement

Facilities and Major Capital Projects

During 2017, the construction of two buildings, to the value of R172 million, were completed. R20 million was used for the construction of buildings in 2017. The construction of these buildings were funded from the DHET 3-300 infrastructure project funding, as well as CUT's contribution towards such infrastructure developments. CUT received infrastructure and efficiency funding to the value of R30 million in 2016, and R40 million in 2017, from the DHET for backlog maintenance and other projects.

Progress on the facilities and infrastructure plans of the institution is as follows:

- The newly constructed Welkom campus student residence was opened for occupation on 27 January 2017.
- The BKS and surrounding buildings have been allocated to Facilities Management and Services. The move will be effected in 2018.
- Required items that were initially omitted at the new buildings at the Bloemfontein and Welkom campuses were provided, and staff started to occupy those buildings. A second request for funding from the DHET 3-300 project for the omitted items was submitted for approval.
- As alluded to earlier, the placing of signage to brand CUT on various entrances and buildings, including approved new building and street names at the Bloemfontein and Welkom campuses, has been concluded.
- The conversion of the Gym Hall into the Idea Gymnasium was completed.
- A conceptual design for the upgrading of the Welkom campus cafeteria was provided to CUT.
- A comprehensive spatial audit of the Bloemfontein campus buildings and facilities has been completed, to assist with

future planning in terms of user allocation and needs. All existing plans will be updated accordingly, and all statistical information will be documented. The Welkom campus will be surveyed thereafter.

- The installation of LED light fittings on the ground floor of the BHP Billiton Lecture Block, linked to the sustainability projects, has been completed. Tender documents for Phase 2 of the BHP Billiton Building and Library and Information Services (LIS) are currently with Procurement.



- The newly constructed Welkom campus student residence was opened for occupation on 27 January 2017.

- The service providers for the two gazebos at the Bloemfontein campus were appointed.
- The upgrading of the house in Woodland Hills Estate was completed.
- The vehicle entrance road from Park Road was upgraded during the July recess period.
- The new Protection Lab in the Engineering Technology Building was completed. The Metallurgic Lab was moved to the new Engineering Building.
- The Emzini Residence Project has been completed.
- Specifications for the installations of elevators for people with disabilities were provided to Procurement. They are currently finalising the bid documents. The document is currently under review at Facilities, as the document lacks a number of critical items.

Integrated security system

Phase 1 of the implementation of an integrated security system, namely the installation of cameras and biometric systems, as well as the upgrading of access points, is underway. A further R2 million was secured from the DHET Maintenance Grant for the second phase of the project. 120 CCTV cameras and turnstiles have been installed in all eight student residences, at the Park Road entrance, and at Gate 5 of the Bloemfontein campus. Council approved the allocation of R5 million towards this project, whilst the DHET contributed R2 million. This project was delayed for five years, and finally implemented successfully in 2017. Management remains committed to enhance the safety of staff and students at both campuses. CUT students, in collaboration with UFS students, participated in a mass action, which included the handing over of a memorandum to demand safety in the surroundings of the campuses. Furthermore, the Welkom campus Management had several engagements with the SAPS to establish a Satellite Police Station at Thabong.

Occupational Health and Safety

The Occupational Health and Safety (OHS) Act (Act No. 85 of 1993) makes provision for the health and safety of people in the workplace. OHS is the responsibility of every employee, as each individual has a role to play in ensuring a safe and healthy working environment. Aligned with the OHS Act, CUT's OHS Structure includes a Section 16.1 appointee, which is the Vice-Chancellor and Principal, who is responsible for the university's OHS, and who delegates this responsibility to Section 16.2 appointees. In terms of Section 16.2 of the OHS Act, 19 Senior and Executive Managers were trained and appointed as Section 16.2 appointees, with effect from 1 September 2017.

Furthermore, OHS is a vital element in CUT's environmental management system towards realising the university's vision of sustainable development. It fits into the broader scope of sustainability at CUT, as the university has the responsibility to ensure that its environment is not harmful to the health and well-being of people, which environment must be protected against the exploitation of natural resources by current and future generations.

As part of the creation of general OHS awareness, 67 Middle, Senior and Executive Managers underwent safety management training. The training enabled managerial staff from both the academic and support services portfolios to understand the importance of a safety structure and safety management system at the university, and the manner in which this should be integrated into the university's daily operations. Furthermore, the various divisions within the university are currently ensuring that the required number of staff members receive training to fulfil the responsibilities of First Aiders, Fire Marshalls and Safety Representatives.

Towards ensuring CUT's compliance with the OHS Act, all maintenance projects now require safety files that clearly outline the scope of work, in order to ensure that maintenance is done

in accordance with the minimum standards. Furthermore, the laboratories are currently training staff in the fundamentals of risk assessments, to ensure that the required Standard Operating Procedures (SOPs) for all tasks can be identified and documented, for safety-control purposes.

Aligned with the National Environmental Management Waste Act (Act No. 59 of 2008), CUT should have a proper recycling system in place. Hence, the role and responsibilities of faculties, as well as operational divisions and sections, should be clarified in this regard.

Communication, Marketing and branding

In our ongoing endeavours to create awareness about CUT and its offerings, Communications and Marketing, faculties and the International Office undertook outreach programmes in the form of career expos and school visits to introduce prospective students to the CUT brand and the University's career-driven programmes. Various tools were utilised as a means to ensure the effective communication and marketing of CUT, both internally and externally. Publications, brochures, corporate videos, advertisements, press releases and statements, web-based media platforms, street-pole banners and promotional collaterals constituted the various branding, marketing and communication tools for our engagements with CUT's target market.

Website and other social media platforms

The implementation of the second phase of the reconfigured CUT website has been completed. The Communications and Marketing Section is working towards developing and maintaining a high-quality interactive website. A proposal on a digital platform to outline a new content management system, which will integrate the university's website with its various social media elements, thereby allowing the effective and holistic management of content, has been approved by Mancom. This is an important strategic milestone, as divisions will be empowered to manage their web pages, whilst Communications

and Marketing will remain the custodian of content management and publishing.

Furthermore, a new CUT Facebook page has been created. The page serves as an excellent conduit, contributing towards a high-performance organisational culture. The public group shares information with prospective and current students on bursaries, scholarships, NSFAS, and NRF opportunities. Contributions were also made to the content for the Print and Web Unit, faculties, Research Development and Postgraduate Studies, CUTIS, and the International Office.

Branding

Some progress has been made towards branding the university. A process of placing signage to brand CUT at various entrances and buildings, including approved new building and street names at the Bloemfontein and Welkom campuses, has been concluded. Marketing material has been distributed to a number of organisations during 2017.

Media coverage

The Newsclip service allows the university to monitor media coverage, and to analyse media content in such a way that possible challenges that are likely to face CUT, and the higher education sector in general, could be considered. We were able to advocate university programmes and stances on matters,

and to influence the media agenda through our success stories, in order to ensure that CUT gains credibility as a place of scholarship and integrity within the media sector. These clips are posted in *Thutong Today*, so that the CUT community can be informed in terms of the extent and content of our coverage in the media. This distribution enhances the university's media relations efforts by highlighting the benefits of positive media placements to the university community. This coverage includes broadcasting, printing, and online and social media platforms. During the course of the year, the Communications and Marketing team managed to monitor mass media coverage and other social media platforms across the country, and analysed challenges that would likely face CUT and the higher education sector. The Advertising Value Equivalent (AVE) actual, with the target in brackets, was 5 022 clips (4 930 clips); 26 functions (24 functions); 41 outreach programmes (38 programmes); and 81 media statements (53 statements).

The appointment of the Vice-Chancellor and Principal attracted substantial media interest, with coverage by SABC; ENCA TV; Network 24; OFM radio (interview and live interview); RSG radio; CUT FM; The Weekly newspaper; Volksblad newspaper; Courant; The New Age (Free State); Lesedi FM; The Mail (Free State); Perdeby; Express; and KykNet Nuus. The Carte Blanche exclusive on the CRPM's medical innovation through Additive Manufacturing, which aired on 9 July 2017, with a repeat on 10 July, also generated good marketing for the university.

Events and functions

The Communications and Marketing Section hosted a number of events and functions on behalf of the University during the course of the year, whilst supporting various divisions across the two campuses to organise and host events.



- CUT hosted a public lecture on Decolonisation of Curriculum steered by Dr Hleze Kunju, a distinct scholar and the first Rhodes University PhD student to write his thesis in isiXhosa. At the public lecture was CUT SRC President, Mr Thapelo Ngozo, Ms Shirley Mlombo, SAHRC Acting Provincial Manager, Prof. David Ngidi, Deputy Vice-Chancellor: Teaching and Learning at CUT; Dr Hleze Kunju, Guest speaker; Ms Toni Gumede, Strategic Relationship Manager: Government Stakeholder Relations at Brand South Africa and Mr Thabo Mongake, representing one of the event partners.



- Official Opening 2017

- **Investiture of CUT's Vice-Chancellor and Principal, Prof. Henk de Jager** - Universities from across South Africa showed their support with by attending the official investiture. From left: Judge Molemela, CUT Chancellor; Prof. Mike Somniso, the University of Fort Hare; Prof. Henk de Jager, Vice-Chancellor and Principal of CUT; Prof. Stephanie Burton, Vice-Principal: Research and Postgraduate Education at the University of Pretoria; Prof. Thoko Mayekiso, Vice-Chancellor of the University of Mpumalanga ; behind-Mr Mike Mohohlo, Chairperson of CUT Council; Prof. Irene Moutlana, Vice-Chancellor and Principal of the Vaal University of Technology; Dr Max Price, Vice-Chancellor and Principal of the University of Cape Town; and Prof. Francis Petersen, Rector and Vice-Chancellor of the University of the Free State.

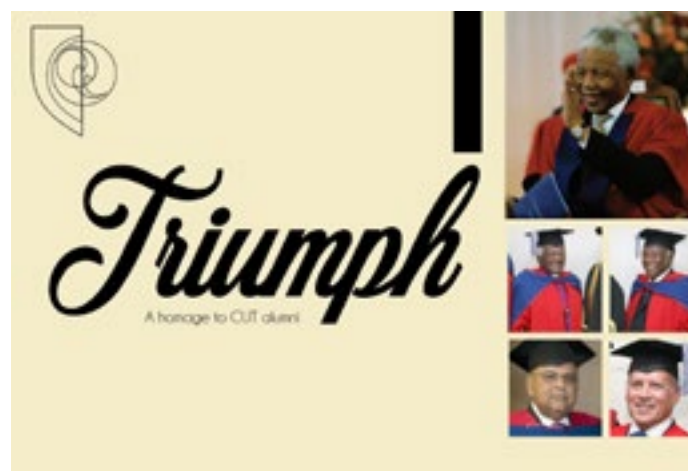


Alumni Association

A new alumni publication, *Triumph*, was published to boast about the achievements and strides that our alumni have made, both in business and academically, since they have left the institution. The publication also serves to enhance communication between CUT and its alumni community. The Alumni Office embarked on a recruitment strategy at the graduation ceremonies at both the Welkom and Bloemfontein campuses from 23 to 30 March 2017, in order to increase participation in CUT's alumni programmes. Specific interventions included the capturing of the latest contact details, for improved communication with our alumni, and the activation of CUT's alumni brand by selling alumni-branded merchandise to alumni. A total of 96% of the graduates' contact details were captured on the current distribution list during these ceremonies, with details of approximately 15000 alumni.

The CUT Alumni Executive Committee attended the Vice-Chancellor and Principal's Inauguration on 30 June 2017, and held their second constitutional meeting on 1 July 2017. Matters such as the Gala Dinner; the Annual General Meeting (AGM); the meeting with the Executive Mayor of the Lejweleputswa District; the Alumni Bursary Fund Policy; and the elective AGM for 2018, were discussed.

The Spring Graduation Ceremony was streamed live, and the link was shared with the alumni community. The former Kamelia Residence (currently the Eendrag Men's Residence) and CUT alumni held a reunion, or home-coming event, from 27 to 29 October 2017, during which former residents were given a tour of their former residence, and the new infrastructure developments on campus. They also visited the FabLab, and Mr Booysen delivered a presentation on the CPRM, and conducted a guided tour of the laboratories.



- Triumph Alumni Cover 2017

Library and Information Services (LIS)

Library orientation, tailored for first-year students, took place from 11 to 13 January, and on 16 January 2017. The induction was intended to introduce students to the wealth of information sources available in the LIS for study and research purposes, and to provide students with instructions on how to access the required information.

The LIS embarked on an investigation into migrating from a blanket copyright license to transactional copyright licenses. In the past, CUT subscribed to the Dramatic, Artistic and Literary Rights Organisation (DALRO)'s copyright materials, under the

cover of a blanket copyright license, for reprography and the use of copyrighted materials. However, the escalating costs of blanket copyright licenses, coupled with the financial constraints facing higher education institutions, prompted the LIS Management to explore more affordable means of copyright licensing.

A cursory review of subscriptions by other institutions revealed that transactional licenses were likely much more affordable than blanket licenses. Hence, the decision was taken to migrate to transactional licenses with effect from 2017.



University Life

First- and second-semester registrations 2017

The registration process, including online registrations, transpired successfully during the first and second semester registrations. Minor challenges that were experienced, were resolved. Pertaining to the registration of international students, the pre-registration/clearance process was followed, as per agreement with the Registrar's Office, whereby the International Office was mandated to control compliance in terms of documentation, and to authorise students to enrol based on the captured documents. Overall, the registration process for international students transpired smoothly.

Second-semester and 2018 applications cycle opened

The application cycle for the second-semester intake of students, into the Faculty of Engineering and Information Technology only, commenced on 1 April 2017, whilst the application cycle for the 2018 intake commenced on 2 May 2017. An online application system that is accessible on campus is used, and applicants are keen to use this system.

Assessment readiness

During the first semester, the Assessment and Graduations Unit received at least 80% of the required question papers in preparation for the first-semester assessment period, whereas, in the second semester, all the required question papers were received in preparation for the second-semester assessment period. Course marks were calculated and published. The final timetables were published, and queries were attended to.

Autumn and Spring Graduation Ceremonies 2017

The autumn graduation ceremonies at both the Welkom and Bloemfontein campuses were successful. A total of nine ceremonies were held. 3 341 students graduated during this period, of which 658 students graduated at the Welkom campus. The Welkom campus is thus growing drastically. Furthermore, of the 3 341 students, 29 obtained their master's degrees, and eight obtained their doctoral degrees. In addition, during our autumn graduation ceremonies, Prof. Seeram Ramakrishna from the National University of Singapore (NUS) was awarded an Honorary Doctorate in Engineering. Prof. Ramakrishna is considered the world's foremost scientist on nanomaterials by electrospinning for use in diverse fields such as healthcare, energy, water and the environment. Finally, Mr Teboho Loate, the inaugural recipient of the Chancellor's Excellence Award, was recognised in the categories Leadership and Community involvement for his proven capacity to guide and motivate others to excellence, and his commitment to improving and serving the regional community.



● Ms Mathabiso Makume captures her niece and friends who received their Postgraduate Certificate in Education (PGCE) at the Welkom graduations.



- Bloemfontein campus was alive with the celebration of family and friends on graduation day.

The Spring Graduation Ceremony was held at the Bloemfontein campus on 8 September 2017. 493 students from both campuses graduated on that day, including 18 master's degree and eight doctoral degree students. A total of 3 759 qualifications were conferred during the 2017 graduation ceremonies, including 47 master's and 16 doctoral degrees.

Auto-progression of students

Auto-progression of students was successfully implemented, and senior students did not have to re-apply to proceed to the next level. The auto-promotion functionality has been developed to allow institutions to automatically promote students, per qualification, to the next level of study (i.e. the next progression level) according to the official rules and regulations of the qualification.

Student life: Student Services with maximum impact and outcomes

The following highlights of the Governance and Student Life Unit are noteworthy:

- The Student Human Rights Dialogue took place on 22 March 2017 as part of observing Human Rights Month.
- CUT FM is an extracurricular platform to enhance talent for the show business industry. The station, which has a wider radius than that of its competitors, continues to play a role in providing a lively edu-entertainment platform for students and the youth at large, as well as marketing the institution within the Central region of the Free State.
- The radio station successfully broadcasted off campus during the Mangaung African Cultural Festival, at the youth Hip Hop Show on 29 September 2017, and at the Miss Glamorous on 30 September 2017.
- The CUT dance group's performance was sterling throughout the year. Once again, the group participated in the Dance Sport SA Dance Championships at the Mangosuthu University of Technology in Durban on 08 April 2017, and made CUT proud by obtaining an overall second position. In addition, Mr Masheane and Ms Pelonomi won a gold medal in the Adult Latin Championships section.
- The dance team also participated in the SA Dance Championships that took place in Oudtshoorn from 7 to 8 July 2017. The team secured the second position in the Champions category; second position in the Pre-champions category; and third position in the Novice category.
- During the 2017 winter and spring recess, Brilliance, a student organisation that focuses on community engagement, conducted extra classes, coupled with motivational talks, career advice and recreation activities, for learners from Ficksburg, Clocolan, and the Thabo Mofutsanyane District. Brilliance also successfully concluded

its Saturday classes, coupled with motivational talks, career advice and recreational activities, for Grade 8 to 11 learners at three schools in Mangaung.

- Student leaders representing various structures (academic, religious, cultural and political structures), held a Student Parliament sitting on 28 July 2017, for purposes of enhancing student governance within the context of co-operative governance.
- Free and fair SRC elections, supported by the South African Independent Electoral Commission (IEC), were held on 6 September 2017. In an attempt to deepen the democratic culture of peer review/monitoring, the elections were also supported by two representatives from the DHET Directorate of Institutional Support and Liaison, and the Student Development Practitioner from Motheo TVET College.
- The newly elected SRC President at the Welkom campus vacated office after it was discovered that he was no longer a registered CUT student. The matter was investigated by the Registrar.
- In its endeavour to create a culture that values cultural diversity, CUT organised the Student Multicultural and Diversity Celebration at the Bloemfontein campus on 15 September 2017.
- On 13 October 2017, the Governance and Student Life Unit, in collaboration with the International Office, co-hosted the Student International Day Celebration. The purpose of the event was to inform, celebrate and showcase international diversity as part of building student cohesion and integration.

Student residences

The University's residences continue to provide a conducive environment for students by ensuring that residences are properly maintained. Through its Residence Academic Mentorship Programme, the Residences Unit continues to support CUT's culture of academic excellence. During the first week of the fourth term, the Residences Unit opened its doors to a revamped 12-bed extension of the Eendrag Residence, known as *Unzini*. The residences also provide students with the opportunity for individual psycho-social development through Living and Learning Communities Programme (LLCP) activities, such as debates, and sport and beauty pageants. The LLCP continues to go from strength to strength in support of the development and integration of CUT's graduate attributes. The new residences provided an additional 96 beds at the Bloemfontein campus, and 252 beds at Welkom campus. CUT did not have any student accommodation at the Welkom campus before.

Furthermore, the first phase of the accreditation of off-campus student accommodation facilities commenced. Mancom approved the accreditation of two providers in Bloemfontein, namely Quattro Properties and Matete Macheli. The challenge, however, remains critical for CUT, as the on-campus accommodation facilities for both the Bloemfontein and Welkom campuses are only sufficient for a small margin of the student population.

Furthermore, Management attended the DHET Workshop on the next cycle of infrastructure funding, and a follow-up regional workshop in December 2017. Finally, the Vice-Chancellor and Principal, and Executive and Senior Managers, visited the off-campus Manheim Ladies and Manheim Men student residences on 25 October 2017, engaging with staff and students, and assessing the conditions of the residences. The major concern raised by the students were their safety from and to the campus in the evening. Management will address this matter during 2018, and this process will be extended to all other residences.

Sporting activities

New part-time coaches for various sporting codes were appointed for the 2017 academic year. Furthermore, MoUs with Free State Hockey and Free State Cricket were renewed for the 2017 academic year.

The highlights of Operational Sport for 2017 include the following:

- Former CUT Ixias player, Trevor Nyekane, was selected to play for the Springbok Rugby Team.
- The CUT Ixias Rugby Team played in the FNB Varsity Cup 2017 season.
- 15 CUT rugby players were selected for Free State Rugby; nine for Griquas; and three for Griffons games.
- The CUT Ixias Rugby Team participated in the University Sports South Africa (USSA) Sevens Tournament, and, out of 20 teams, finished in 6th place overall, thereby qualifying for the Varsity Cup Sevens in Durban from 1 to 3 December 2017. The CUT Women's Rugby Team played in the final match of the USSA Sevens Tournament.
- The Ixias and Cheetah 0/19 coaches, Tiaan Liebenberg and Skillie Bester, were selected as Rugby Coaches of the Year in the Free State.
- For the first time, the CUT's Athletics Team qualified for the 2016/2017 FNB Varsity Cup athletics season, in Category B.
- In April 2017, CUT athletes participated in the USSA Athletics Tournament, and obtained fourth position in the Track and Field category.
- The men's soccer team qualified to play in the Varsity Sports Tournament from July to September 2017.
- At the USSA Tournament, four soccer players from CUT (two males and two females) were selected to participate in the

World Student Games 2017 in Tapei, China.

- The CUT Cricket Team qualified for the Varsity Cup Cricket 2018.
- CUT Cricket attended the USSA Cricket Tournament in Pretoria on 30 October 2017, won the B-section, and was promoted to the A-section for 2018.
- The CUT Ladies' and Men's Hockey Teams participated in the USSA Tournament.
- The annual USSA Golf Tournament took place at the Centurion Country Club from 2 to 7 July 2017. CUT's team managed to reach the B Division, and ended in second position, together with Wits University. On an individual level, Keenan Aysen obtained fourth, and Faf Marx seventh place in the B Division.

Staff and student wellness

The highlights of the Wellness Centre for 2017 include the following:

- The first Health Week and First Things First Campaign for students took place from 20 to 24 February 2017.
- The Wellness Centre joined forces with CANSA in the SHAVATHON Project on 24 February 2017 to create awareness of cancer, and to raise funds to raise awareness of this illness.
- In order to raise awareness of critical well-being and development matters, CUT FM continued to support the Wellness Centre with special monthly or daily programmes that focused on cancer awareness, HIV/AIDS, and reproductive health.
- The Annual Wellness Approach to Student Behaviour (WASB) Week and second HIV Testing Campaign took place from 2 to 5 May 2017. More than 800 students had their general

HIV status tested, and participated in various wellness talks, mental games and social well-being activities.

- The Wellness@CUT (WELLCUT) Programme for staff continued in 2017. The following events were held: A Thank-you Function for service staff, attended by 95 staff members; Women's Day Event held on 15 August 2017; as well as the first General Health Screening Campaign, which was supported by Discovery, BestMed, Sanlam and 4D Health in March 2017. More than 100 staff members from both campuses were tested, and received free advice on healthier living.
- The annual Christian Leadership Camp was successfully hosted in the third term. The main aim of this camp is to equip young Christian student leaders to become agents of moral regeneration through responsible living amongst their peers at CUT. A group of 50 students who attended the camp will continue to conduct value-driven events in 2018.
- The Wellness Centre, via committed CUT funds, stepped in to support NSFAS students who depleted their funds before their final examinations. Support to the value of

R1,474 million was provided to needy students.

- The approved HEAIDS funding for wellness projects relating to HIV/AIDS, the Victim Empowerment Programme (VEP) and Primarily Health, were implemented.
- Motivating and training the 20 Wellness Workers remain important functions of the Wellness Centre. These workers received special training from the South Africans Against Drunk Driving Organisation on the dangers of alcohol use and abuse, and the influence thereof on the greater community. The workers will, in turn, influence their peers in 2018.
- The ZAZI student group received the Vice-Chancellor's Award for the Best Student Organisation 2017, whilst the Reading Club was recognised as the Best Community Outreach Student Group.
- The 10th Annual CUT Golf Day took place on 17 November 2017. The event is used to raise funds to support some of the poor, but academically performing students. Proceeds of the day are utilised to supplement the Wellness Centre Poverty Project Fund.



- The Gymnos residence gentlemen received some words of encouragement, advice and motivational talk from CUT sports stars that are doing well in the industry. Pictured with the group of students are Mr Patrick Malokase, soccer star and business man, Dr Paks Tondi, Deputy Registrar: Student Services and Ms Rethabile Mosala, Step Student: office of the Deputy Registrar: Student Services (3rd from right second row).

Financial Health



Viability of the University



In determining CUT's financial health, the following areas were assessed:

Income

During 2017, income increased by 11%, from R872 million in 2016, to R968 million in 2017. This increase was mainly as a result of an increase of 8,49% (R33,219 million) in subsidies and grants, as well as an increase of 23% (R73 million) in tuition fee income.

Expenditure

The total expenditure for 2017 increased by 11,72%, from R788 million in 2016, to R881 million in 2017. This is relatively aligned with the increase in income.

Council-controlled salaries

The payment of salaries is the university's highest permanent annual obligation. 62% is budgeted towards salaries on an annual basis. This cost increased by an average of 6,5% in 2017, whilst the actual salary expenditure increased by 8%, from R371 million in 2016, to R402 million in 2017.

Solvency ratio

There was a slight increase in the asset-debt ratio, from 1.83:1 in 2016, to 1.89:1 in 2017.

Cash balance

There was a slight decrease in the cash balance. The university does not borrow money to invest in infrastructure and other assets, but rather uses its own funds for this purpose. Property, plant and equipment increased by little less than R40 million in 2017. The financial statements indicate that CUT did not withdraw any funds to finance these activities, with the balance being financed from 2017's sources.

From the above, it can be established that, despite the challenges experienced by the higher education sector in terms of student debt, CUT remained financially healthy. This position is set to strengthen, as more rigid strategies around student funding and debt recovery are being implemented. The university intends to reduce its dependence on government funding and student fee income.

A possible change in the accounting treatment of grants for capital projects would improve the university's financial status significantly in as far as income recognition and deferred income are concerned. Currently, income is deferred over the useful life of an asset, creating a major liability in the statement of the financial position.

The university's financial condition

The institution's primary strategic goals were defined in Section 1 as:

- institutional advancement;
- teaching and learning;
- research and innovation;

- university life; and
- financial sustainability.

A brief discussion of four of these goals is presented page 124.

University life

A number of factors in terms of staff and students are considered when dealing with matters related to university life. During the financial period under review, the institution capitalised two buildings, namely a student residence and the African Language and Human Science building. Total costs capitalised during 2017 amounted to R172 million. The Ya Rona Building is expected to become operational in 2018.

This investment in the buildings, and the equipment related thereto, had a major positive impact on the quality of life of students and staff. Amongst others, the residences are new, trendier and safer, thus translating into improved student performance.

Financial sustainability

This strategic goal ensures that the institution has sufficient financial resources to achieve its objectives on an annual basis, as well as in the long term.

The institution's financial performance improved from a net surplus of R84 million in 2017, to a net surplus of R87 million in 2018. The unrestricted funds surplus improved from a surplus of R52 million, to a net surplus of approximately R60 million. An analysis of the results indicated that this was as a result of an increase of 11% in **total income**, from R872 million in 2016, to R968 million in 2017.

Although restricted grants amounting to R79 million were received in 2017, only an amount of R42 million was recognised as income. The remainder of these funds were indicated as part of deferred income, thereby resulting in an increase of R37 million. Grants associated with infrastructure are only recognised over the life of the associated property; hence, a large portion of the restricted funding that was received forms part of deferred income. As at 31 December 2017, the balance associated with this liability was R478 million.

Total expenditure increased by 11.72%. This is in line with the increase in income. Scrutiny of the university's expenditure for 2017 revealed that (i) total staff costs increased by 8.58%, and (ii) other operating expenses increased by approximately 14.72%.

The improvement in expenditure was also a direct result of the implementation of cost-containment measures to mitigate the perceived risks of the #Fees-Must-Fall campaign. The institution remains committed to upholding these measures by means of continuous awareness campaigns and increased efficiencies.

Teaching and learning

From the financial information, it can be determined that this strategic objective continues to be met, as witnessed by an increase in the number of teaching outputs, which is evidenced by a steady incline in the grant subsidy element that is linked to this measure.

Research and innovation

The institution continues to enjoy ground-breaking innovation, as confirmed by the number of research awards; the increase in the number of postgraduate graduates; and the increase in the research output and the associated grant subsidy.

Overview of the budgeting process

The budgeting process for all Council-controlled funds commence with the appraisal of the Ministerial guidelines and the CUT Council's guidelines on budget allocations. Council's guidelines provide direction in terms of the percentage of fund allocations, as indicated in the Headline Budget.

Council's guidelines are set to ensure that the annual budget is allocated in a manner that ensures the achievement of the institution's strategic and operational objectives.

An evaluation of available funding and associated streamlining is undertaken, and the funds are allocated using the Resources Allocation Model (RAM). As some areas are not yet fully aligned with the outcomes of RAM, cross-subsidisation still takes place

to ensure stability, whilst strategies are formulated to eliminate such cross-subsidisation as far as possible. Stakeholders are involved in the entire process, from gathering information on the availability of funds, to planning activities. The budget is approved by all the relevant committees, and ultimately by Council.

Monitoring of the budget takes place on an ongoing basis, with results being discussed with the relevant budget holders. Any over-expenditure and/or under-expenditure is dealt with accordingly, to ensure that the achievement of objectives is not compromised. Management accounts are prepared on a quarterly basis, and the results thereof are discussed at committee levels, and submitted to Council for noting purposes.

Financial aid to students

Financial aid totalling approximately R567 million was provided to students in 2017. This amount comprised CUT funds, NSFAS grants, and externally funded bursaries and scholarships. Financial aid was awarded to students on the basis of academic performance and financial need.

- **Missing middle funding:** in 2017, the DHET allocated R24.7 million towards missing middle students.
- **CUT funding:** in 2017, CUT allocated R30 million of the Council-controlled funds towards student bursaries.
- **NSFAS loans:** loan agreements were signed to a value of approximately R304 million, of the R422 million allocation.
- **Historic debt:** R1.3 million was received from NSFAS.
- **National skills funding:** R3.6 million was received from NSFAS towards national skills funding.
- **Other donors:** additional funding to the value of approximately R85 million was received from various funders, with varying conditions. These funds were either actively sourced by CUT, or via external funders.

Increase in student fees

CUT reviews student fees on an annual basis. A policy and procedure for determining student fees are in place to ensure a balance between the recovery of costs for the services received by students in terms of tuition and other related services, and the fees charged. Student fees contributed approximately 40% of the total income of the institution.

CUT strives to carefully and efficiently manage the cost of services, whilst ensuring that the quality of service is maintained.

The recommendations made to the CUT Council in respect of tuition fees and related fee increments are consulted with the Student Fees Committee, and all stakeholders, including the Students' Representative Council (SRC), are represented on this committee.

A number of factors contribute to the increase in costs, for example:

- higher education is expensive, and the cost of providing such education usually increases at a higher rate than that of general inflation;
- maintenance of the physical campus, and the expansion of the range of options for classrooms and research

laboratories form a major part of the costs involved in providing higher education at a university of technology;

- costs are affected by the demand for additional facilities; and
- costs are associated with addressing health and safety-related matters.

Annual percentage increases for 2017 in the respective categories were initially approved for a three-year period by the CUT Council in 2016. As a result of the #Fees-Must-Fall campaigns in 2015 and 2016, the government committed to a fee increase for students to a maximum of 8%. The DHET provided funding for the missing middle students, which covered the 8% for the qualifying students. CUT received R24.755 million from government in this regard.

From the above, it can be established that, despite the challenges facing the higher education sector, the institution has performed well financially. The monitoring of performance on a quarterly basis, as well as the implementation of cost-containment measures, ensured that CUT remained financially healthy, without compromising any of the university's operations.

Borrowings and additional borrowings

The university did not borrow any money in 2017. The borrowings reflected in the Annual Financial Statements are as a result of five-year finance-lease contracts for computer equipment, with the last payment expected to be made on 1 October 2018. In the

future, the university might have to consider borrowing money, so as to enhance its ability to deliver on a number of critical areas, such as the construction of student residences, increasing third-stream income, etc.

Annual financial statements

CONSOLIDATED NOTES TO THE FINANCIAL STATEMENTS FOR YEAR ENDED 31 DECEMBER 2017

	Note	2017 R '000	2016 R '000
ASSETS			
Non-current assets			
		937 737	903 585
Intangible assets	5	138	325
Property, plant and equipment	6	816 563	792 270
Investment property	7	794	794
Other non-current financial assets	8	119 062	109 096
Leasehold asset	10	1 180	1 100
Current assets			
		334 967	215 232
Receivables and prepayments		307 765	169 157
Student debtors	11	287 489	145 435
Other debtors	11	20 276	23 722
Cash and cash equivalents	12	27 202	46 075
Total assets		1 272 704	1 118 817
FUNDS AND LIABILITIES			
Funds available			
		598 868	506 530
Restricted use funds		(6 342)	59 192
Other - Education and general			
Unrestricted use funds and reserve		605 210	447 338
Education and general			
Non-current liabilities			
		411 221	413 765
Interest bearing borrowings	13	-	1 572
Post retirement obligations	14	33 040	34 515
Deferred income	15	378 181	377 678
Current liabilities			
		262 615	198 522
Accounts payable and accrued liabilities	16	161 133	121 395
Bank overdraft	12	-	11 993
Leave accrual	17	397	352
Interest bearing borrowings	13	1 572	1 620
Deferred income	15	99 513	63 162
Total funds and liabilities		1 272 704	1 118 817



STATEMENT OF COMPREHENSIVE INCOME FOR YEAR ENDED 31 DECEMBER 2017

	2017 R '000					2016 R '000
	Council Controlled Unrestricted	Student and staff Accom- modation Unrestricted	SUB - TOTAL	Specifically Funded Activities Restricted	TOTAL	TOTAL
TOTAL INCOME	788 752	23 324	812 076	155 733	967 809	872 235
State appropriations - subsidies and grants	424 382	-	424 382	59 246	483 628	449 844
Tuition and other fee income	348 193	23 301	371 494	15 146	386 640	357 818
Income from contracts	5 581	21	5 602	72 129	77 731	52 823
Private gifts and grants	670	2	672	8 117	8 789	1 829
SUBTOTAL	778 826	23 324	802 150	154 638	956 788	862 314
Finance income	20 9 926	-	9 926	1 095	11 021	9 921
TOTAL EXPENDITURE	(738 366)	(13 314)	(751 680)	(129 021)	(880 701)	(788 292)
Personnel Costs	18 401 852	3 484	405 336	41 306	446 642	411 357
Salaries	401 841	3 484	405 325	41 306	446 631	411 073
Post retirement benefits cost	14 11	-	11	-	11	284
Other current operating expenses	19 297 198	9 830	307 028	87 715	394 743	344 082
Depreciation and amortisation	19 39 093	-	39 093	-	39 093	31 833
SUBTOTAL	738 143	13 314	751 457	129 021	880 478	787 272
Finance costs	21 223	-	223	-	223	1 020
SURPLUS / (DEFICIT) FOR THE YEAR	50 386	10 010	60 396	26 712	87 108	83 943
OTHER COMPREHENSIVE INCOME						
Items that will not be reclassified to profit /(loss)						
Actuarial (loss) / gain on post retirement obligation	14 1 485	-	1 485	-	1 485	(2 038)
Items that may be subsequently classified to profit / (loss)						
Change in value of available-for-sale financial assets	8 -	-	-	-	-	4 307
OTHER COMPREHENSIVE INCOME / (DEFICIT) FOR THE YEAR	1 485	-	1 485	-	1 485	2 269
TOTAL COMPREHENSIVE INCOME / (DEFICIT) FOR THE YEAR	51 871	10 010	61 881	26 712	88 593	86 212

CONSOLIDATED STATEMENT OF CHANGES IN FUNDS FOR YEAR ENDED 31 DECEMBER 2017

R '000								
Description	Note	Accumulated CUT Fund	Revaluation reserve	Special earmarked funds	SUB - TOTAL A	Restricted funds Restricted Use	SUB - TOTAL B	TOTAL A + B
		Unrestricted	Unrestricted	Unrestricted Designated Use				
Restated balance at 31 December 2015	29	219 569	50 662	130 418	400 649	26 241	26 241	426 890
Previous balance at 31 December 2015		218 249	50 662	130 418	399 329	11 132	11 132	410 461
Restatement	29	1 320	-	-	1 320	15 109	15 109	16 429
Net surplus / (loss) for 2016		51 900	-	-	51 900	32 043	32 043	83 943
Other comprehensive income - Actuarial Loss		(2 038)	-	-	(2 038)	-	-	(2 038)
Other comprehensive income - Change in value of available-for-sale financial assets		4 307	-	-	4 307	-	-	4 307
Transfers between funds and to other accounts		(63 118)	(711)	(1 112)	(64 941)	58 369	58 369	(6 572)
Funds Utilised		(34 088)	-	10 870	(23 218)	23 218	23 218	-
Funds Utilised - assets		61 743	-	18 936	80 679	(80 679)	(80 679)	-
Restated balance as at 31 December 2016		238 275	49 951	159 112	447 338	59 192	59 192	506 530
Previous balance as at 31 December 2016		229 067	49 951	159 112	438 130	49 072	49 072	487 202
Restatement		9 208	-	-	9 208	10 120	10 120	19 328
Net surplus / (loss) for 2017		60 396	-	-	60 396	26 712	26 712	87 108
Other comprehensive income - Actuarial Loss		1 485	-	-	1 485	-	-	1 485
Other comprehensive income - Change in value of available-for-sale financial assets		-	-	-	-	-	-	-
Distribution from CUTis surplus to CUT		4 000	-	-	4 000	(4 000)	(4 000)	-
Transfers between funds and to other accounts		25 141	5 591	9 916	40 648	(36 903)	(36 903)	3 745
Funds Utilised		4 195	-	(4 195)	-	-	-	-
Funds Utilised - assets		56 163	-	(4 820)	51 343	(51 343)	(51 343)	-
Balance as at 31 December 2017		389 655	55 542	160 013	605 210	(6 342)	(6 342)	598 868



STATEMENT OF CASH FLOWS FOR YEAR ENDED 31 DECEMBER 2017

	Note	2017 R '000	2016 R '000
Cash flows from operating activities:			
Receipts			
Cash generated from operations		53 732	33 540
Cash receipts from government and other grants		527 812	427 677
Cash receipts from students and other customers		219 734	271 896
Cash paid to employees and suppliers		(693 814)	(666 033)
Net cash flows from operating activities	25	53 732	33 540
Cash flows from investing activities:			
Acquisition of property, plant and equipment	6	(63 568)	(104 388)
Other financial assets - realisation at fair value / matured		(1 480)	48 529
Interest received		6 280	4 968
Net cash flows from investing activities		(58 768)	(50 891)
Cash flows from financing activities			
Increase/(repayment) of obligations	27	(1 832)	(3 010)
Interest paid	21	(11)	(610)
Increase/(decrease) in bank overdraft	12	(11 993)	(11 091)
Infrastructure grant received		-	35 000
Net cash flows from financing activities		(13 836)	20 289
Net increase/(decrease) in cash and cash equivalents		(18 872)	2 939
Cash and cash equivalents at the beginning of the year	12	46 075	43 136
Cash and cash equivalents at the end of the year	12	27 202	46 075





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2017



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