SATN

South African Technology Network

Cape Peninsula University of Technology

Central University of Technology, Free State

DUT DURBAN UNIVERSITY OF TECHNOLOGY

Mangosuthu University of Technology

Tshwane University of Technology
We empower people

VUT
Vaal University of Technology
Your World to a Better Future
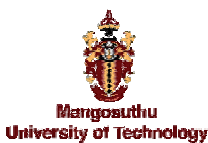
POLYTECHNIC OF NAMIBIA

FOURTH ANNUAL REPORT OF THE SOUTH AFRICAN TECHNOLOGY NETWORK (SATN) FOR THE YEAR 2011

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Cape
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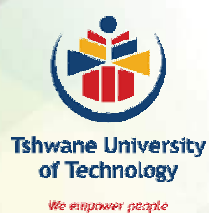University
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We empower people

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INTRODUCTION

The SATN was established by the Universities of Technology to champion the cause of the UoTs and to coordinate activities as decided by the UoT Vice-chancellors. As the SATN Office is managed by the Director and the Administrative Officer, most of the SATN work is done by the members of the SATN Board, the Programme and Qualifications Committee, the Research and Innovation Committee and the Teaching and Learning Technology Committee under the leadership of Prof Thandwa Mthembu (VC: CUT) Prof Anthony Staak (DVC: Academic, CPUT), Prof Laetus Lategan (Acting DVC: Academic, CUT) and Mr Izak Smit, Director: Centre of e-Learning, CPUT) respectively.

UNIVERSITIES OF TECHNOLOGY AND HIGHER EDUCATION

Higher education is about the future. In the post modern world knowledge is a commodity like food countries that don't produce knowledge will have to import it - if they can afford it. The knowledge economy is less dependent on manual labour. Worldwide the number of manual labour jobs is decreasing and new knowledge worker jobs are generated every day. Countries that don't produce their own knowledge will become poor countries and their citizens will migrate to other knowledge rich countries. Higher education is responsible for the education (production) of knowledge and knowledge workers. Students should not be taught what to think but how to think and curricula should be designed to achieve this.

The SATN Board and the Chairpersons of the SATN Working Committees started 2011 with a discussion of SATN Strategic issues. These discussions culminated in the SATN Vision 2011-2012 Document addressing the following issues: Differentiation; Communication with the Minister and Department of Higher Education and Training; The nature of the SATN Conferences; Enhancing the knowledge base and filling the innovation chasm in the areas of housing, water, energy, agriculture, biotechnology etc. ; Skills development (partnerships with SETAS; Socio- economic development and regional innovation; Partnerships with the FET sector; Approach to the HEQF; Performance indicators; Internationalisation.

Historical divides in the South African higher education system should no longer prevent some universities to aspire to establish themselves within different time frames as credible and reputational universities. The debate on differentiation should be conducted in a manner that is transparent and fair to all universities and consistent with the important tacit and implicit principle of transforming the higher education system in manner that bridges the historical divides of the past and to ensure that UoTs be accepted partners in the single coordinated higher education system.

The SATN has espoused the following principles that the higher education sector must consider adopting and using as a backdrop to decide a process for effecting differentiation.
These principles should primarily aim at creating room for the realization of a uniformly excellent and efficient system of higher education as opposed to promoting a system characterized by a few pockets of excellence which are not clearly defined and profiled.

In the process of differentiation recognition and respect for the autonomy and independence of institutions should be one of the primary principles. Individual institutions have missions, aspirations and commitments arising from their own values and responses to the environment in which they operate.

It is generally accepted that the core functions of a university are around teaching and learning, research and service or community engagement. SATN therefore declares that the research role is essential for all universities in South Africa.

In the knowledge economy higher education institutions should shape the training of their students and research outputs to respond to the community they serve geographical location, local and institutional linkages and local and international markets.

Each university should be distinguished by its individual Programme and Qualification Mix (PQM) which may differ from that of other universities in terms of range and levels of offerings and size of enrolments. The planning, funding and quality assurance roles of the state are key steering mechanisms to guiding this process and in ensuring that the system as whole evolves in ways that are aligned to the national development agenda

Differentiation should be part of a contract between the institution and the state in the sense that it is determined within the context of the national planning, funding and quality assurance frameworks. Within this context, it may in some instances be necessary for Government to establish or fund institutions with a special mandate or to engage a particular university to change its PQM over time.

The 2003 re-organisation of higher education institutions in South Africa whereby traditional universities, comprehensive universities and universities of technology were established has formed the basis for some form of institutional differentiation. UoTs have a unique character and niche in higher education in South Africa. To maintain and further develop the unique character UoTs should educate and train their teaching and research staff and therefore, it is necessary that UoTs should be able to do research and offer programmes up to doctorate level. Teaching and research staff trained at other universities take time to learn to understand the UoT character. The SATN position on differentiation was documented by Profs Duma Malaza, Thandwa Mthembu and Irene Moutlana in the paper entitled "Towards a fair and transparent HESA approach to institutional differentiation in the South African Higher Education system".

Universities of Technology are currently engaged in the process of curriculum design to align their learning programmes with the Higher Education Qualifications Framework (HEQF). While UoTs have supported the establishment of a single qualifications framework for a diverse higher education system, they have consistently voiced their concerns that the HEQF as it currently stands will have major implications for qualifications and curricula of the University of Technology Sector. In terms of the HEQF the existing UoT degrees were abolished and the curricula of virtually all learning programmes will have to be redesigned. The HEQF affects the progression of UoT students to postgraduate studies negatively. Although the HEQF was promulgated in October 2007 UoTs first had to develop the capacity and expertise to engage curriculum design. In 2011 the Council on Higher Education (CHE) initiated a review of the HEQF and UoTs were informed that as from 2014 only HEQF compliant qualifications may be offered.
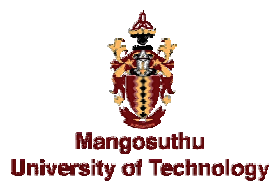
Cape Peninsula University of Technology (CPUT)
Vice-Chancellor: Prof Lineo Vuyisa Mazwi-Tanga

Central University of Technology (CUT)
Vice-Chancellor and Principal: Prof. Thandwa Mthembu

Durban University of Technology (DUT)
Vice-Chancellor and Principal: Prof Ahmed Bawa

Mangosuthu University of Technology (MUT)
Vice-Chancellor and Principal: Dr Mashupye Ratale Kgaphola

Tshwane University of Technology (TUT)
Administrator: Prof Themba Mosia

Vaal University of Technology (VUT)
Vice-Chancellor and Principal: Prof Irene Moutlana

Polytechnic of Namibia
(Associate member of the SATN)
Rector: Dr Tjama Tjivikua

Prof Thandwa Mthembu (SATN Chairman)
Vice-Chancellor and Principal of Central University of Technology

Prof Lineo Vuyisa Nazwi-Tanga (SATN Deputy Chairman)
Vice-Chancellor of Cape Peninsula University of Technology

Prof Ahmed Bawa
Vice-Chancellor and Principal of Durban University of Technology

Dr Mashupye Ratale Kgaphola
Vice-Chancellor and Principal of Mangosuthu University of Technology

Prof Themba Mosia
Administrator of Tshwane University of Technology

Prof Irene Moutlana
Vice-Chancellor and Principal of Vaal University of Tehcnology

Dr Anitha Ramsuran
Manager: Human Capital Development, Technology Innovation Agency (TIA)

Prof Duma Malaza
Chief Executive Officer (CEO) of Higher Education South Africa (HESA)

Dr Engela van Staden
Acting Chief Director: University Academic Planning and Management Support
of the Department of Higher Education and Training (DHET)

ATTENDANCE OF SATN BOARD MEETINGS

Nr	Name	Organisation	Position	Attendance of Board meetings			
				March 2011	June 2011	September 2011	November 2011
1	Prof Thandwa Mthembu (Chairman)	Central University of Technology	Vice-Chancellor and Principal	✓	✓	✓	✓
2	Prof Lineo Vuyisa Mazwi-Tanga (Deputy Chairman)	Cape Peninsula University of Technology	Vice-Chancellor	✓	✓	✓	✓
3	Prof Ahmed Bawa	Durban University of Technology	Vice-Chancellor and Principal	✓	✗	✓	✗
4	Prof Mashupye Kgaphola	Mangosuthu University of Technology	Vice-Chancellor and Administrator	✗	✓	✓	✗
	Mrs N J Ndlazi	Mangosuthu University of Technology	(attended on behalf of VC)	✓			
5	Prof Themba Mosia	Tshwane University of Technology	Vice-Chancellor and Principal			✓	✗
	Prof Lourens van Staden	Tshwane University of Technology	Deputy Vice-Chancellor: Teaching Learning and Technology	✓	✓		
6	Prof Irene Moutlana	Vaal University of Technology	Vice-Chancellor and Principal	✓	✓	✓	✓
7	Prof Duma Malaza	Higher Education South Africa	Chief Executive Officer	✓	✓	✓	✗
8	Mr Jody Cedras	Department of Higher Education and Training	Director: Special Projects	✗	✓		
	Dr Engela van Staden	Department of Higher Education and Training	Acting Chief Director: University Academic Planning and Management Support			✓	✗
9	Dr Anitha Ramsuran	Technology Innovation Agency	Manager: Human Capital Development	✓	✓	✓	✗
10	Dr Tjama Tjivikua	Polytechnic of Namibia	Rector	✗	✗	✗	✓
	Mr Corneels Jafta	Polytechnic of Namibia	Registrar	✗	✓	✓	✗

ESTABLISHMENT OF THE SATN:

The SATN was established in order to:
- promote the common interests of the UoT's
- present the views of the Universities of Technology on a national and international level Influence the development of National Education and Training policies in accordance with nature and character of the universities of technology
- promote mobility and employability of University of Technology students
- promote academic quality by building strong Universities of Technology
- promote relevant research and development
- assist with the transfer of appropriate technologies
- promote co-operation between the universities and commerce and industry

ROLE OF THE SATN

The SATN will:

- provide a forum to discuss higher education issues at the universities of technology, including co-operative education, teaching, research training, technological innovation and technology transfer;
- advocate the needs, interests and purposes of technological higher education and their communities to government, industry and other groups;
- develop policy positions and guidelines on various related higher education matters;
- encourage international co-operation;
- foster links and exchanges of information with similar organizations in higher education in South Africa and abroad;
- act as a source of information about South African technology higher education institutions;
- share best practices in higher education.

KEY PROJECTS OF THE SATN

- Maintenance of the database of the different technologies available in the Universities and the experts driving the different Technologies
- Fundraising for the UoT sector and SATN Secretariat
- Branding and marketing of the UoT sector
- Implementation of the developed Performance Indicators at Universities of Technology and to assess their possible impact on funding and financial management
- Establishing benchmarks/criteria for Universities of Technology in South Africa
- Ongoing liaison and networking with ATN, the Finnish Universities, the German Fachhochshulen, the European Network for Universities of Applied Sciences (UASNET); and the International Strategic Technology Alliance (ISTA). Also with relevant Government Departments and Agencies such as the Department of Science and Technology (DST), National Research Foundation (NRF), the Technology Innovation Agency (TIA) and the National Science and Technology Forum (NSTF)
- Co-ordinating the SATN Project Committees
- Development, updating and maintenance of the SATN Website

ACHIEVEMENTS OF THE SATN

- SATN position papers were produced on:
  - Place and Role of Universities of Technology in South Africa
  - Position of the SATN Board on the current status and recognition of Universities of Technology in the Restructured Higher Education Landscape
  - Research at Universities of Technology
  - Position Paper on Work Integrated Learning in the new HEQF
  - Higher Education Qualification Framework
  - Towards a fair and transparent HESA approach to institutional differentiation in the South African Higher Education System
- Four successful international conferences were held in 2008, 2009, 2010 and 2011
- The Database of Technologies and Services was launched in 2010 and are continually updated
- The UoT Branding and Marketing Campaign was launched in 2009 and continued in 2010 and 2011
- International links were established and fostered with ATN, UASNET ISTA and ARENE
- Development of Performance Indicators for UoTs and the compilation of the first UoT Performance Profile
- UoT Study Brochure for 2011/2012 and other branding materials
- Fundraising
- SATN website development:
  http://www.satn.co.za and http://www.satnconference. co.za

REPORT ON THE ACTIVITIES OF THE SATN COMMITTEES

As the SATN Secretariat consists of only the Director and an Administrative Officer, the work of the SATN is performed by a number of committees composed of UoT staff members. The SATN Board approved the Terms of Reference of each of the committees. The committees advise the Board on issues falling within these terms of reference, and plan and implement projects that contribute to the image and impact of the SATN.

SATN Programme and Qualifications Committee

Chairperson: Prof Anthony Staak

This committee attended to issues mostly concerned with the interpretation and implementation of the Higher Education Qualifications Framework (HEQF). Discussions with the DHET and the CHE on the HEQF pertained to the D Tech and M Tech nomenclature and the articulation of diploma students to the Masters Degree. Attention was given to the designators and qualifiers of UoT qualifications. Attention was also given to the implementation of the Memorandum of Agreement with the South African College Principals Organisation (SACPO).

Nr	Name	Organisation	Attendance of meetings			
			February 2011 (online)	May 2011	August 2011 (online)	October 2011 (online)
1	Prof A Staak (Chairperson)	Cape Peninsula University of Technology	✓	✓	✓	✓
2	Prof A Louw	Vaal University of Technology	x	x	x	x
3	Dr J Smit	Vaal University of Technology	x	X	✓	x
4	Ms O Evangelou	Vaal University of Technology	✓	✓	X	x
5	Mr Chris Steyn	Vaal University of Technology	✓	X	x	x
6	Prof A Erasmus	Tshwane University of Technology	✓	X	✓	x
7	Dr L van Ryneveld	Tshwane University of Technology	✓	✓	x	✓
8	Dr D Naidoo	Tshwane University of Technology	✓	x	x	x
9	Ms K Sattar	Durban University of Technology	x	✓	✓	x
10	Ms L Cooke	Durban University of Technology	✓	✓	✓	✓
11	Ms Marianne Bester	Cape Peninsula University of Technology	✓	✓	✓	✓
12	Prof Chris Winberg	Cape Peninsula University of Technology	✓	x	x	✓
13	Ms Luclaire Airey	Cape Peninsula University of Technology	✓	✓	✓	✓
14	Mr R Bouwer	Central University of Technology	✓	✓	✓	x
15	Prof Mabokang Monnapula-Mapesela	Central University of Technology	x	x	x	✓
16	Prof Talvin Schultz	Central University of Technology	x	x	x	✓
17	Ms Chichi Maimane	Central University of Technology				✓
18	Ms NJ Ndlazi	Mangosuthu University of Technology	✓	x	x	✓
19	Mrs C Jinabhai	Mangosuthu University of Technology	x	✓	✓	✓
20	Mr G Govender	Mangosuthu University of Technology`	✓	✓	✓	✓
21	Mr B Forbes	SASCE	x	✓	✓	✓
22	Prof CAJ van Rensburg	South African Technology Network	✓	x	✓	✓
23	Mr Jerry Beukes	Polytechnic of Namibia	x	✓	✓	✓

SATN Coordinating Research, Innovation and Technology Transfer Committee

Chairperson: Prof Laetus Lategan

The restructuring and the determination of the terms of reference of this committee took place this year. An audit was done of the research areas of strength of each UoT. A number of research areas common to all UoTs were identified and institutional co-operation in some of these research areas is being considered.

Nr	Name	Organisation	Attendance of meetings			
			February 2011 (online)	May 2011	August 2011 (online)	October 2011 (cancelled)
1	Prof L Lategan (Chairperson)	Central University of Technology	✓	✓	✓	
2	Dr B Johnson	Vaal University of Technology	x	x	x	
3	Prof Deon de Beer	Vaal University of Technology	x	x	x	
4	Dr J Jooste	Vaal University of Technology	✓	x	✓	
5	Prof S Moyo	Durban University of Technology	x	✓	x	
6	Prof G Prinsloo	Durban University of Technology	✓	x	✓	
7	Dr C Nhlapo	Cape Peninsula University of Technology	x	x	✓	
8	Prof D Makinde	Cape Peninsula University of Technology	x	✓	x	
9	Dr P Nevhuthalu	Tshwane University of Technology	✓	x	✓	
10	Dr M Msibi	Tshwane University of Technology	✓	x	✓	
11	Mr A Noma	Tshwane University of Technology	✓	x	x	
12	Dr M Wessels	Tshwane University of Technology	✓	✓	x	
13	Dr A Mienie	Mangosuthu University of Technology	✓	x	✓	
14	Mr ACV Notshweleka	Mangosuthu University of Technology	x	✓	✓	
15	Prof CAJ van Rensburg	South African Technology Network	✓	✓	✓	

SATN Teaching, Learning and Technology Committee

Chairperson: Mr Izak (Sakkie) Smit

The Terms of Reference of this newly established committee was approved by the SATN Board. The committee is currently attending to issues like an inter-institutional Blackboard license, an E-meeting platform, the integration of ITS and Blackboard, academic staff development and a share portal for SATN projects and ePedagogy.

Nr	Name	Organisation	Attendance of meetings			
			February 2011	May 2011 (online)	August 2011 (online)	October 2011
1	Mr S Smit (Chairperson)	Cape Peninsula University of Technology	✓	✓	✓	✓
2	Dr E Ivala	Cape Peninsula University of Technology	✓	x	✓	✓
3	Mr H Pretorius	Cape Peninsula University of Technology	x	x	x	x
4	Mr D Bleazard	Cape Peninsula University of Technology	✓	x	✓	x
5	Ms F Nofemela	Cape Peninsula University of Technology	x	x	x	x
6	Ms A Lombaard	Vaal University of Technology	x	✓	✓	✓
7	Dr J Smit	Vaal University of Technology	✓	x	✓	✓
8	Mr C Steyn	Vaal University of Technology	✓	✓	✓	✓
9	Mr Y Naidu	Vaal University of Technology	x	✓	x	x
10	Mr T Tsotetsi	Vaal University of Technology	x	x	x	x
11	Mr P Maleke	Vaal University of Technology	x	x	x	✓
12	Mr J Badenhorst	Central University of Technology	✓	✓	✓	✓
13	Mr O Selolo	Central University of Technology	✓	✓	x	x
14	Mr A Magwentshu	Central University of Technology	✓	x	x	✓
15	Prof Mabokang Monnapula-Mapesela	Central University of Technology	x	x	x	✓
16	Mr R Pengilly	Central University of Technology	x	x	x	✓
17	Mr R van der Walt	Central University of Technology	x	✓	x	x
18	Ms M Pete	Durban University of Technology	✓	✓	✓	✓
19	Mr V Singh	Durban University of Technology				x
20	Mr R Naicker	Durban University of Technology	✓	✓	✓	✓
21	Dr D Steyn	Tshwane University of Technology	✓	✓	✓	x
23	Mr D le Roux	Tshwane University of Technology	✓	x	✓	x
24	Prof S Ojo	Tshwane University of Technology	x	x	x	x
25	Ms P Lugayeni	Mangosuthu University of Technology	✓	x	✓	x
26	Mr S Langa	Mangosuthu University of Technology	✓	x	x	✓
27	Mr J Okuthe	Mangosuthu University of Technology	x	✓	x	x
28	Mr R Bhagowat	Mangosuthu University of Technology	x	x	x	x
29	Mr J Thompson	Mangosuthu University of Technology	✓	x	x	✓
30	Mr M Naidoo	Mangosuthu University of Technology	x	x	x	x
31	Dr M Ktjivikua	Polytechnic of Namibia	x	x	x	x
32	Mr H Joshi	HCT-UAE	x	✓	x	✓
33	Prof CAJ van Rensburg	South African Technology Network	x	x	x	x

SATN Work Integrated Learning Committee

Chairperson: Dr Joyce Nduna

The Board decided that the SATN Work Integrated Learning Committee should be separated from the autonomous South African Society for Cooperative Education (SASCE). However, cooperation between SATN and SASCE will continue.

The Programmes and Qualifications Committee has identified the need for the development of a WIL resource to assist university teachers and curriculum developers in professional and/or vocational higher education programmes.

The development of a comprehensive resource that includes case studies as well as recommended practices will strengthen the existing provision of WIL. Furthermore, the development of new learning programmes that seek to broaden the application of WIL within the framework of the HEQF will be promoted. Currently there is a danger that some UoTs may choose to design learning programmes that exclude WIL because of the challenges of implementation and the perceived threat to academic credibility.

The resource will be developed with Financial support from the HEQC.

The capture, access and availability of data on experiential learning/work integrated learning is important for planning and managing WIL at Universities of Technology. SATN intends not only to find ways to obtain data on WIL but in addition to ensure quality of WIL in all learning programmes in UoTs.

For this purpose the SATN WIL Committee is developing a baseline instrument for data collection to determine the quality of work integrated learning in Universities of Technology.

Nr	Name	Organisation	Attendance of meetings				
			March 2011 (online)	May 2011 (online)	June 2011 (online)	August 2011	October 2011
1	Dr J Nduna (Chairperson)	Cape Peninsula University of Technology	x	x	✓	✓	✓
2	Ms F Nofemela	Cape Peninsula University of Technology	✓	✓	✓	✓	✓
3	Prof C Winberg	Cape Peninsula University of Technology	x	x	x	✓	x
4	Mr S Ori	Durban University of Technology	x	x	x	✓	✓
5	Mr B Forbes	SASCE	x	x	x	✓	x
6	Mr D Mack	Mangosuthu University of Technology	✓	✓	x	✓	✓
7	Mr S Malinga	Mangosuthu University of Technology	x	x	x	x	x
8	Mr A Maphosa	Vaal University of Technology	x	x	x	✓	✓
9	Dr P Stegmann	Vaal University of Technology	x	x	x	✓	x
10	Mr J Maartens	Vaal University of Technology	x	x	x	✓	✓
11	Dr B Mokoma	Central University of Technology	x	x	✓	✓	✓
12	Dr M Wessels	Tshwane University of Technology	✓	✓	✓	✓	✓
13	Mr E Motaung	Tshwane University of Technololgy	x	x	x	x	✓
14	Mr C Pop	Polytechnic of Namibia	x	✓	x	✓	x
15	Prof CAJ van Rensburg	South African Technology Network	✓	✓	✓	✓	✓

INTERNATIONAL LINKS

In December 2010 the Vice-chancellors visited the United Arab Emirates, Kuwait and Jordan. As a result of this visit the SATN signed a cooperation agreement with the Jordan University of Science and Technology in 2011.

In 2008 the SATN was engaged in a project to develop a set of performance indicators by which the performance in teaching/learning, research and innovation, and engagement with society could be measured and to identify the unique contributions of UoTs in terms of the three university functions. This project was funded as part of the South Africa / Finland Education Cooperation Agreement. Profs Seppo Saari and Aki Valkonnen acted as consultants on behalf of the Finnish Higher Education Evaluation Council (FINHEEC). The SATN Board decided that the SATN Institutions should gain information regarding the Finnish Higher Education System, quality improvement and applied or innovative research and to establish links with Finnish Higher Education. The possibility of establishing formal relationships with appropriate higher education institutions would also be investigated.

The Finnish education system is one of the best in the world. Finland is a small country with a population of only 5.4 million, a per capita income of 34 000 (about R380 000) and a 100% literacy rate. It has, over the years, invested heavily in the education of its people. It continuously ranks as one of the top European countries in terms of R&D investments and the quality of its educational system.

The key words in Finnish Education Policy are quality, efficiency, equity and internationalisation. Education is a factor for competitiveness. The current priorities in educational development are to raise the level of education and upgrade competencies among the population and the work force, to improve the efficiency of the education system, to prevent exclusion among children and young people, and to enlarge adult learning opportunities. Special attention is also paid to quality enhancement and impact in education, training and research and to internationalisation.

An SATN delegation visited the following institutions in September 2011; Finnish Ministry of Education and Culture, Division of Higher Education; Finnish Higher Education Evaluation Council FINHEEC; Metropolia UAS; Arcadia UAS; Haaga-Helia UAS (including the School of Vocational Teacher Education); Hämk UAS (including the Vocational Teacher Education Unit);and Laurea UAS

The SATN Board has identified a number of actions emanating from the Finland visit. Special attention will be given to educator training and staff and student exchange.

SATN
South African Technology Network

REPORT: SATN ASSESSOR SHORT LEARNING PROGRAMME, DUBAI

Introduction

A SATN delegation visited the UAE in December 2009 to establish formal links with Higher Education institutions in the Middle East and to explore opportunities for sharing of best practice related to teaching and learning technologies, quality assurance, research and innovation and other related issues, such as measuring student learning outcomes through assessment.

The Higher Colleges of Technology (HCT) were founded in 1988 with four colleges; The Higher Colleges of Technology has grown to be the largest of the higher educational institutions in the UAE, gaining a well-respected reputation for innovative learning. More than 18,000 students attend 17 modern men's and women's campuses throughout the UAE.

HCT offers more than 90 different, English-taught programs in Applied Communications, Business, Engineering, Information Technology, Health Sciences and Education. All programs are designed in consultation with business and industry leaders to ensure that the skills students learn are job-relevant and to high standards. They are constantly monitored to ensure they are at the cutting edge of industry standards and technological change.

All students learn in a technologically sophisticated educational environment that encourages development of the independent and life-long learning skills necessary to success in a fast changing world. HCT graduates have a reputation throughout the UAE for their technical and communications skills and for their adaptability to actual workplace conditions. Because of this, they are eagerly sought by organizations looking to build their workforce with young Emiratis who are capable of operating effectively in today's global business environment.

HCT has awarded over 48,000 academic credentials to its graduates. These graduates have gone into the UAE employment market, making a significant impact on sustainable economic and social development of the country. Combined with the fundamental principle of educating the UAE's future leaders in business, technologies, industry and the community is a desire to make the region a nexus point for innovative and cutting edge ideas and in-practice applications.

Since its inception, HCT has focused on meeting the needs of the local economy and community while at the same time meeting international benchmarks and accreditation standards. In this process, HCT has established active and dynamic links, collaborations and relationships with all major companies and organizations in the UAE and with many of the world's leading universities and organizations

It was agreed that the SATN would assist with building assessment capacity in the Higher Colleges of Technology (HTC). The SATN assessor short learning programme took place on 19-23 June 2011 at the Dubai Men's College in Dubai. The programme was facilitated by a SATN delegation (staff developers nominated from three UoT's) to 95 faculty staff (see attached registration list) from the HCT who teach in women and men's HCT's across the United Arab Emirates (UAE). The SATN delegation comprised Prof Ansu Erasmus, TUT, team leader and coordinator; Mr Riaan Bouwer, CUT; Dr Lorraine Hassan, CPUT; and Mr Hein vd Watt, TUT.

The programme was developed by the SATN delegation by means of electronic and telephonic communication, and a one-day workshop held on 1 March 2011 in Pretoria. The HCT provided inputs and comments on the first draft of the programme, and was also responsible for all the logistical arrangements regarding flights, visas, medical and tourist insurance, accommodation, transport, and meals of the facilitators, as well as the arrangements for HCT staff who attended the training.

Outline of the programme

Dr Peter Scanlan welcomed the SATN facilitators and the programme participants. Prof Ansu Erasmus introduced each member of the SATN team and then commenced with the introduction and contextualisation session, where an overview was given about the role of SATN, higher education in South Africa in general, and SA higher education challenges in particular, the principles of adult learning and facilitation approaches.

Mr Hein van der Watt explained the intended outcomes and assessment criteria of the assignment which had to be submitted by individual participants electronically by Wednesday evening (22 June). He then commenced using clickers to teach a potentially boring topic such as principles of assessment, which was extremely successful. The session exposed the participants to clicker technology and also demonstrated how clickers could be used as a teaching and learning tool.

The afternoon session dealt with taxonomies of assessment.

Mr Riaan Bouwer focused on curriculum alignment and some theoretical aspects of a post-modern learner-centred approach. He also dealt with the definition, purpose and principles of integrated assessment. Dr Lorraine Hassan dealt with designing assessment instruments, such as peer assessment, scenario-based questions, and modified essay questions as examples of authentic and integrated assessment.

The design of assessment rubrics and application of design principles was done in small groups. The principles of designing questions for clicker technology built on the experiential knowledge gained by participants during the first day's session when clickers were used during the session. Dr Lorraine Hassan also exposed the participants to objectively structured clinical examinations and objectively structured practical examinations by means of a role play activity. As rubrics are commonly used in the HCT's, this was an important session to apply knowledge and skills gained during the workshop.

Mr Hein vd Watt dealt with moderation of assessment, and again aligned the principles of assessment with moderation practices. During the small group discussions it became clear that moderation was applied differently in different contexts, and that some participants were not aware that the principle of curriculum alignment also applied in moderation contexts.

The presentations by participants of the assignment that they were given on the first day of the programme took place during the remainder of the last day of the programme. Participants were selected randomly to present how they improved an original assessment, using the principles of assessment learnt during the workshop. One of the unintended outcomes of this session was that the presenters were able to share best practice with their peers, whilst also being assessed by their peers. The presentations continued until the programme ended at approximately 15:00

Feedback on the programme was done by means of clickers, and a small certificate ceremony was held in closing.

Successful aspects of the programme

Participants were required to sit at a different table every day to enable them to meet colleagues from different colleges, and to be exposed to different views during small group discussions. Participants were also exposed to best practices in colleges across the UAE.
Some participants had never used clickers before, and some were exposed to different applications of the use of clicker technology. The feedback from participants showed that the use of clickers was very successful, both as a teaching and learning tool, and as a feedback method.

The four facilitators each brought their own style and expertise to the workshop, and most participants appreciated not having the same facilitator for 5 days. It was also useful that the facilitators were able to help each other to manage 10 small groups during discussions, and to manage the roaming microphones during small group feedback or questions from the individuals.

Relevance of content

The final feedback showed that the majority of participants were satisfied with the nature and level of content, and the possibilities for application in their own contexts. In particular, the session on taxonomies of assessment and curriculum alignment were very popular amongst the participants.

Assessment assignment

The assessment assignment which the participants were required to complete by the end of the week, served as a golden thread throughout the programme. The assignment added to the authenticity of learning during the programme, and also guided participants to apply their learning from the first session. It was also a subtle reminder of the stress that we put students through during our own teaching.

Challenges and recommendations

The large group (95) impacted on the breadth and depth of interaction that could take place, as small group feedback consumed much more time than anticipated. S*maller groups would be recommended to enable more effective training.*

The group consisted of a large number of staff who held Master's or Doctorate degrees in Education, whilst some staff held no educational qualifications at all. In addition, some staff showed evidence of excellent assessment practices, whilst others were more inexperienced. The heterogeneity of the group impacted on decisions about the appropriate level to pitch content. *A recommendation for future staff development initiatives is to conduct a proper training needs analysis before the training, and to differentiate groups according to educational qualifications and assessment experience.*

The System Wide Assessments (SWA) - A practice where programme outcomes are developed at the HCT systems level, seem to be controversial amongst HCT staff, to the extent that it sometimes had a debilitating effect on the extent to which participants were able to be creative in the alignment of their assessment practices with the given outcomes.

Customisation of programme for HCT

The SATN facilitators attempted to constantly refer to HCT documents, such as assessment policies, HCT fact book, examples of assessment rubrics etc., and yet, some of the assessment practices only became clear to the facilitators during discussions with the participants. In many cases the HCT participants were not even aware that these documents existed
Sharing of best practice within HCT

Any future staff development opportunities for HCT staff should include HCT expertise as co-facilitators, particularly with the aim of sharing excellent practices that are already in place in the colleges, and to assist external facilitators with the use of context-specific examples for application. During the group discussions and the participant presentations, it became clear that pockets of expertise already exist in HCT and these staff should be utilised to share their HCT context-specific knowledge and skills.

Participant feedback during programme

Participants were requested to provide anonymous qualitative feedback at the end of each day's sessions, by means of answering three questions in writing which was handed to the facilitators. The facilitators analysed each day's feedback with the aim of improving the next day's sessions. In addition, a comprehensive clicker session was conducted on the overall programme on the last day. Valuable feedback was collected throughout the programme, with the aim of continuous quality improvement.

EDUCATION WITHOUT BORDERS (EWB)

The SATN assessment course presenters attended the opening of the Education Without Borders Conference opening at the foot of the world's tallest building, the Burj Khalifa. The opening address was delivered by HE Sheikh Nahayan Mabarak Al Nahayan, Minister for Higher Education and Scientific Research and Chancellor of the Higher Colleges of Technology.

The delegation attended the World Congress of EWB at the Hotel. Prof. Mabokang Monnapula-Mapesela participated as one of the panel members on the world forum. The bi-annual conference allows students from all cultures to meet and share ideas. The opening was a fantastic experience of international collaboration and hosted in true Arabic UAE splendor.

TECHNOLOGY VISIT TO ABU DHABI

The delegation was welcomed in person by the Vice Chancellor of the Higher Colleges of Technology Dr Tayeb Kamali. They attended various sessions of choice on the use of technology as applied by different teaching academics. It started with an executive briefing at the Abu Dhabi Men's College with some of the executives.

The delegation was introduced to the use of Microsoft One Note, a technology that allows active participation in the collective building of a portfolio. All the documentation and presentations of the workshops to follow were then loaded onto this platform to allow delegates to make notes (Laptop/tables supplied for the duration of the workshop sessions) and to interact and view relevant documentation.

Demonstrations focused on the use of the Apple family of mobile devices that can be used in a variety of ways to share content with students. Apple users can also design individual applications to allow them to expand the opportunities. Some interesting facts regarding South Africa were given. A total population of around 50 million (mid-year 2010) and 45 million cell phone subscriptions, thus most people carry mobile phones and the implication is that mobile phones can serve as an effective platform to educate the population. Topics covered included:

What is the force behind the Third wave: Mobile computing? Review and demo of the best educational applications available on Apple, Blackberry and Android. Innovative programs or pilots undertaken by educational institutions using mobile devices, interfacing mobile devices with existing LMS, getting started with application development

Different pictures were showed of the "classroom of the future". Including issues like raising the level of the student, by allowing the lecturers to sit lower than the student. Thus there is no discrimination. Interaction must be possible at all times. Wooden walls installed to minimize reflective sounds and all venues have video, audio, one or two projectors and smart boards.

Correct classroom design, Data projection with backup for power failures, Visual enhancements, Teacher laptop, Document cameras, Audio, Data projector, Writing device and if lecturers want to add their own devices, make provision for it and very important internet connection preferably wireless. According to latest research the minimum requirements for a functional venue includes: a computer, internet connection, LCD projector, interactive / whiteboard, audio and a document camera. In creating the ultimate learning venue it should be a long term vision - it is not about budgets, but about teaching and learning.

During a tour through the different classrooms and the Library it became clear that a variety of systems and software can be used together with Smart boards and other interactive input devices to expand opportunities for academics.

The underlying concept of instructional technology may be that we need to look at the lecturer of the future becoming an instructional designer with a keen sense of available technologies for teaching and learning. Some of the underlying principles may be:

- **SKILLS FOR THE 21st CENTURY (what kind of learners? - new generation learners)**
- **21st CENTURY TEACHERS (lifelong learners who should take advantage of new technologies that students have and use) (need instructional design training/courses)**
- **FUTURE LEARNING ENVIRONMENT (should allow blended learning/hybrid approach, should not be restricted by space and time, should allow learners to work more effectively in a global and knowledge age)**
- **ADVANTAGES OF SOUND INSTRUCTIONAL DESIGN**
- **BEST PRACTICES**
- **DISADVANTAGES OF NOT HAVING SOUND INSTRUCTIONAL DESIGN**

The discussion on Enterprise Level Systems in Higher Education started with a feedback from all the delegates present and the HCT staff on the use of enterprise learner management systems. The HCT's uses Blackboard Vista. All the UoT in SA already moved over, or are busy with moving over to the new version of Blackboard 9.1. At least we could also share some of our own experiences on the migration to Blackboard 9.1 with the HCT's. They are still in the process of migration planning.

In general the SA institutions were not experiencing any major negative issues. In the case of VUT it was reported that they are busy with the installation of Sakai, an Open Source system.

The Assistive Technology Learning Resource Centre (ATLRC) is dedicated to assist special needs students to attain excellence in their highest educational and professional pursuits by:
- Creating an accessible Assistive Technology (AT) learning environment.
- Providing access to the use of the most advanced AT resources.
- Conducting general awareness events within the community and offering training programs in the use of AT.
- Giving consultancy in the acquisition and use of appropriate AT resources.
- Training and empowering students and community partners with special needs in the use and application of the AT resources
-

HTC provide in the needs of learners at the colleges in the following areas:
Autism, blindness, vision difficulties, speech and hearing impaired, low vision, Dyslexia. Various software and hard physical disabilities which refers to a broad range of special needs which include orthopedic, neuromuscular, cardiovascular and pulmonary disorders . Different software and hardware technologies are used to assist these students during their studies as well as coping in the world of work.

The way forward:

We were fortunate as SATN members to be engaging with the HCT to establish links in the mutual understanding on the value of technology for teaching and learning.

As a start we have to look at short term activities, such as online academic development programs where academic from both networks can "show and tell" for others to "listen and learn". Longer term activities may include exchange program and more formal activities. The SATN already engaged lecturers of all the UoT to attend online courses through the Elluminate platform to allow for academic development on the use of technologies for teaching and learning. As a short term objective we need to see how we can collaborate on this level.

In the words of Dr Tayeb A Kamali, VC of the Higher Colleges of Technology in the United Arab Emirates:

"It was a pleasure to host the delegation to the UAE. I am pleased that you were able to coincide your visit with Education Without Borders – I trust you took away fond memories of the event. We too look forward to future collaboration with regard to Educational Technology and faculty exchange between South African Universities of Technology and HCT."

The SATN would like to echo the future involvement · we have a lot to share. At this moment the development trajectories are mainly dictated to by cultural, economic and political differences, but the technologies will enable us to bridge the gap between our differences and allow us to improve the experience of our students

DATABASE OF TECHNOLOGIES AND SERVICES

The SATN/TIA Database of Technologies was established in October 2010. During 2011 185 technologies were captured on the database and until 1 February 2012, 2600 searches were done on the database.

In December 2011 the SATN was informed that TIA has made funds available for the maintenance of the database and for interns to visit all universities to capture technologies for the database.

The current record of the database indicates that 158 technologies from 13 universities have been captured on the database.

UNIVERSITY	Number of Technologies on the Database
Cape Peninsula University of Technology	19
University of Cape Town	18
Central University of Technology, Free State	21
Durban University of Technology	10
University of Fort Hare	0
University of the Free State	0
University of Johannesburg	5
University of KwaZulu-Natal	0
University of Limpopo	8
Mangosuthu University of Technology	9
Nelson Mandela Metropolitan University	16
North West University	1
University of Pretoria	0
Rhodes University	0
University of South Africa	0
University of Stellenbosch	10
Tshwane University of Technology	13
University of Venda	0
Vaal University of Technology	11
Walter Sisulu University	8
University of Western Cape	0
University of Witwatersrand	0
University of Zululand	0

BRANDING OF UNIVERSITIES OF TECHNOLOGY

Branding of Universities of Technology became an important aspect of the work of the SATN. The establishment of a new brand in the field of higher education is a difficult and long term process but it is essential for the growth and acceptance of Universities of Technology in South Africa and internationally.

Apart from advertisements in various magazines and journals the SATN also placed 270000 inserts containing UoT programme information in 10 different newspapers county wide. The newspaper inserts proved to be the most effective advertising method. Parents, students and Government Agencies filed the inserts for later reference and months after the inserts were placed in the newspapers the SATN Office still received telephone enquiries emanating from the newspaper inserts.

The annual international SATN conferences have contributed to the branding of UoTs.

COOPERATION WITH THE FURTHER EDUCATION AND TRAINING COLLEGES (FET)

The two exploratory meetings between representatives of the South African College Principals Organisation (SACPO) and the SATN held in 2010 were followed up with four meetings in 2011 in May, June, August and November 2011. The meetings dealt with possible areas of cooperation including capacity building and articulation. At the ETDP Seta SACPO Workshop it was resolved that SATN Representative should serve on the Steering Committee for Continual Professional Development for the FET Colleges.

CHE ITL RESOURCE DOCUMENT

Under the leadership of Prof Chris Winberg of CPUT members of the Programme and Qualifications committee compiled the publication: *Work-Integrated Learning: A Guide for Higher Education Institutions*. The guide is intended to assist those involved in programme development and in the curriculum development and adaptation required by the Higher Education Qualifications Framework (October 2007). It also aims to prompt other academics who are involved in teaching to consider the educational purpose and role of work-integrated learning in teaching and learning. As the authors argue, "University teachers should be concerned to ensure that the students that graduate from their programmes are prepared for the world in which they will live and work." The publication provides a theoretical foundation for work-integrated learning while making use of a large number of local and international case studies for illustration and example. This Guide was published by in the CHE Higher Education Monitor of August 2012.
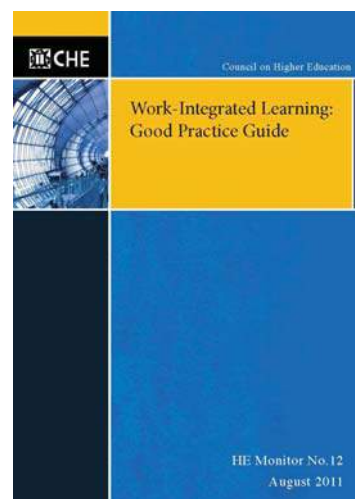
SATN RESEARCH PROJECTS

The development of research capacity is an important aspect of the development of universities of technology. The development of research in these institutions had to start from a small base. In order to generate a critical mass in selected research fields it was decided to pool expertise and resources. Establishing cooperative research projects is difficult and it is important to make cooperation attractive for the researchers and the institutions. The Vice-chancellors have approved institutional cooperation in the fields of research training, renewable energy, water, biotechnology and agriculture and housing. The planning for these projects is currently in progress.

NATIONAL SCIENCE AN TECHNOLOGY FORUM (NSTF)

The SATN obtained Education Sector Membership of the NSTF. Me Jansie Niehaus, Executive Director of the NSTF addressed the SATN Board in September 2011 on current NSTF activities. The NSTF promotes networking and debate especially regarding government policies. They also promote partnerships and run the annual NSTF-BHP Billiton Awards and other projects. The NSTF are also involved in promoting innovation.

THE FOURTH ANNUAL SATN CONFERENCE

The 2011 the Fourth Annual SATN Conference on CURRICULUM TRANSFORMATION AT UNIVERSITIES OF TECHNOLOGY: TOWARDS THE DEVELOPMENT OF NEW GENERATION UNIVERSITIES was held at the Central University of Technology, Bloemfontein, Free State from 27-29 November 2011.

Looking at the philosophical elements of curriculum transformation, the Fourth SATN Conference dealt with issues such as disciplinary knowledge, contextualised knowledge based on practice in the workplace, and knowledge developed in the field of practice. The academe and the workplace are seen as two distinct sides of teaching that need to cooperate to produce employable graduates. UoTs should fuse conceptual or disciplinary knowledge and vocational knowledge with what can be learnt in the workplace. This would introduce another type of education into the current scope of UoTs.

Case studies suggested that the mandate of UoTs was different from other universities. Differentiation must be fair and not demarcate unshakable boundaries and hierarchies in terms of different types of knowledge. The references to UK universities were telling and could provide valuable lessons in the South African context. In no way should there be mimetic isomorphism in South Africa. The fact that the majority of UoT enrolments are at the level of diplomas is prescribed by the Department of Higher Education and Training. UoTs should ask themselves whether their aspirations will match the expectations of their audiences; can they ignore labour market needs, and for whose benefit are they doing particular research?

 A number of papers dealt with Work Integrated Learning (WIL), calling for an alignment between academic and workplace spaces and practices, and the need for WIL to be beneficial for students, institutions and the workplace. UoTs need to be clear about the meaning of WIL, service learning, problem-based learning, experiential learning, etc. Inasmuch as the CHE produced a document in this regard, UoTs, have to continue debating the issue and refine their understanding of WIL.

It was also suggested that a more structured approach to WIL – similar to that used by professional bodies – should be explored. In pure Engineering programmes, there is more clarity regarding WIL and what is expected, but the challenge around WIL arises around those programmes that are not covered by professional bodies.

The quality of teaching and learning has to be assessed, considering that UoTs claim to have a unique approach that meets the needs of industry. How do they monitor and evaluate their lecturing staff's competence? How do they ensure that good practices are spread to other levels of the organisation? Have they made teaching and learning programmes compulsory, for those who teach them, and are they effective? How do they spread these competencies to their partners who are responsible for WIL assessment in the workplace?

How will UoTs ensure that technology becomes the bedrock of what we teach at UoTs? A case study was presented, and there were questions about how social media can be integrated in our student centered approach to teaching and learning. This could be a way for us to meet students halfway and make our education more student centered.

In the debate about technology-enhanced curricula, how does one introduce an institution-wide technology-enhanced system? What tools does one use, and how do we ensure adoption throughout institutions? How do we change the mind sets of our lecturers to optimally use all available technologies? Sometimes, technology is available but not used optimally. Sometimes students are introduced to new technologies, but they become caught up and are unable to move along to other programmes. UoT representatives visited the UAE in 2009, which was followed by a visit from another delegation in 2011, with the aim of embedding technology-enhanced teaching and learning throughout all South African UoTs.

The presentation by Prof Erasmus on the HEQF demonstrated clearly that teaching can be fun. The questions that emerged from this session were quite telling in terms of how widely the sector has engaged, at all levels, with the changed HEQF.

Prof. Garrod highlighted the HEQF as a possible vehicle for curriculum transformation, highlighting that our ideas should drive the system instead of the other way around. What had been missing in the discourse around the HEQF to date had been the big picture characteristics and the human perspectives, rather than processes and timelines. We should ask the question whether the HEQF will allow us to transform our curricula as UoTs in a meaningful way.

These inputs to the conference will be valuable as springboards for taking the sector forward, stimulating debate and action in the coming year.

The SATN Conference proceedings has been published.

SATN WEBSITE

The SATN Website (http://www.satn.co.za) was established in 2007 and it was revamped in July 2008 and continuously updated during 2010. Since its inception the website has attracted more than 18 000 visitors. The website is used to report on all SATN activities and news pertaining to UoTs.

FINANCIAL REPORT FOR 2010

In order to comply with legal financial requirements and regulations, the SATN Board appointed Ernst and Young as external auditors of the SATN. The SATN has received unqualified audit reports for 2007, 2008, 2009 and 2010.

SOUTH AFRICAN TECHNOLOGY NETWORK TRUST
(IT 913/08)

STATEMENT OF FINANCIAL POSITION

AT DECEMBER 31, 2010

	NOTE	2010 R	2009 R
ASSETS			
Non-Current Assets		17 771	33 837
Property, Plant and Equipment	2	17 771	33 837
Current Assets		1 969 609	1 770 490
Trade and Other Receivables	3	81 288	1 364 806
Cash and Cash Equivalents	10.2	1 888 321	405 684
Total Assets		**1 987 380**	**1 804 327**
EQUITY AND LIABILITIES			
Capital and Reserves		949 664	572 024
Retained Income		949 664	572 024
Non-Current Liabilities		23 482	34 011
Finance Lease	4	23 482	34 011
Current Liabilities		1 014 234	1 198 292
Deferred Income		900 000	900 000
Trade and Other Payables	5	103 705	290 189
Finance Lease	4	10 529	8 103
Total Equity and Liabilities		**1987 380**	**1 804 327**

**SOUTH AFRICAN TECHNOLOGY NETWORK TRUST
(IT 913/08)**

STATEMENT OF COMP REHENSIVE INCOME

FOR THE YEAR ENDED DECEMBER 31, 2010

	NOTE	2010 R	2009 R
REVENUE		**2 316 457**	**1 110 397**
Other Income		85 827	9 524
Administrative and Other Expenses		(2 014 662)	(1 707 661)
Operating Profit/(Loss)	6	**387 622**	**(587 740)**
Finance Cost		(9 982)	(11 849)
Net Profit/(Loss) before Tax		**377 640**	**(599 589)**
Income Tax Expense	7	-	-
Profit/(Loss) for the year		**377 640**	**(599 589)**
Profit/(Loss) for the year		**377 640**	**(599 589)**
Other Comprehensive Income		**-**	**-**
Income Tax relating to Other Comprehensive Income		-	-
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**377 640**	**(599 589)**

**SOUTH AFRICAN TECHNOLOGY NETWORK TRUST
(IT 913/08)**

STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED DECEMBER 31, 2010

	Retained Income R	Total R
Balance at 31 December 2008	**1 171 613**	**1 171 613**
Total comprehensive income for the year	(599 589)	(599 589)
Balance at 31 December 2009	**572 024**	**572 024**
Total comprehensive income for the year	377 640	377 640
Balance at 31 December 2010	**949 664**	**949 664**

SOUTH AFRICAN TECHNOLOGY NETWORK TRUST
(IT 913/08)

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2010

	NOTE	2010 R	2009 R
CASH FLOW FROM OPERATING ACTIVITIES			
Net Cash Inflow/(Outflow) from Operating Activities		**1 490 740**	**112 718**
Cash Received from Customers		3 685 802	1 680 297
Cash Paid to Suppliers and Employees		(2 270 906)	(1 565 254)
Cash (Utilised)/Generated by Operations	10.1	1 414 896	115 043
Interest Received		85 827	9 524
Interest Paid		(9 983)	(11 849)
CASH FLOW FROM INVESTING ACTIVITIES			
Net Cash Inflow/(Outflow) from Investing Activities		**-**	**(799)**
Acquisition of Plant and Equipment		-	(799)
CASH FLOW FROM FINANCING ACTIVITIES			
Net Cash Inflow/(Outflow) from Financing Activities		**(8 103)**	**293 765**
Increase in Deferred Income		-	300 000
Increase/(decrease) in Finance Lease Liability		(8 103)	(6 235)
Net Increase/(Decrease) in Cash & Cash Equivalents		1 482 637	405 684
Cash and Cash Equivalents at 1 January		405 684	-
Cash and Cash Equivalents at 31 December	10.2	**1 888 321**	**405 684**

SATN
South African Technology Network

layout and design by nico baird