# 2012/13
## ANNUAL REPORT

technology innovation
AGENCY

An initiative of the Department of Science and Technology

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# CORPORATE PROFILE

## INTRODUCTION

The Technology Innovation Agency (TIA) is an initiative of the Department of Science and Technology (DST) that came into existence through the promulgation of the Technology Innovation Agency Act No. 26 of 2008. TIA is the national public entity intended to serve as the key institutional intervention to bridge the innovation chasm in the National System of Innovation (NSI) and supports technology innovation at Higher Education Institutions (HEIs), Science Councils (SCs) and commercial enterprises. Our head office is in Pretoria and we have six regional offices in Gauteng, KwaZulu Natal, Eastern Cape, Limpopo, Free State and Western Cape.

## OUR MANDATE

TIA's mandate is to support and enable technology innovations across all sectors of the economy in order to achieve socio-economic benefits for South Africa, thereby enhancing global competitiveness. This entails supporting the development and commercialisation of research outputs from HEIs, SCs, public entities and private research institutions.

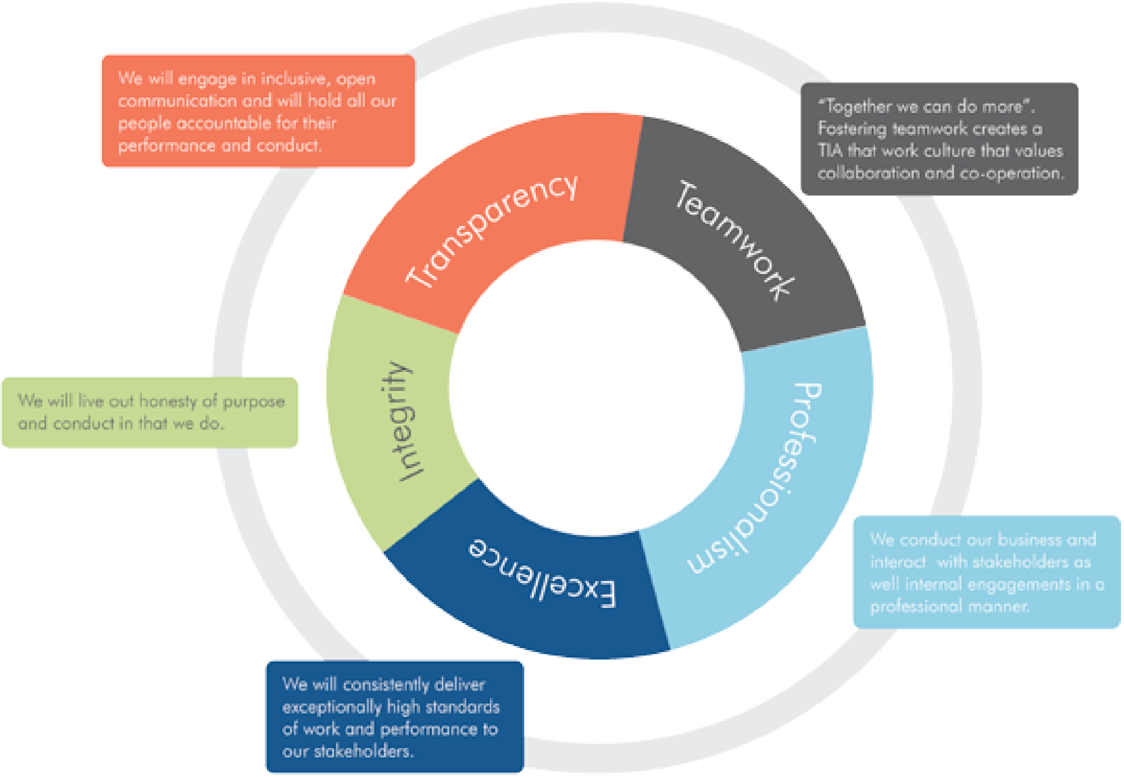
## OUR VISION

To be a world class innovation agency that supports and enables technological innovation to achieve socio-economic benefits for the country.

## OUR MISSION

To support technology innovators in unlocking South Africa's global competitiveness and to deliver socio-economic value.

# OUR VALUES




# STRATEGIC OBJECTIVES

TIA aims to use South Africa's science and technology base to develop new industries, create sustainable jobs and help build a knowledge-based diversified economy that is able to address global challenges. Our strategic objectives are to:

- Stimulate the development and demonstration of technology-based products and processes
- Support the commercialisation of technology innovations
- Develop an enabling environment for technology innovation and commercialisation in South Africa
- Develop an internal environment within TIA to successfully execute its strategy
- Facilitate the development of innovation skills to support technology innovation and commercialisation
- Become a schedule 3B entity in terms of the PFMA.

# CHAIRPERSON'S OVERVIEW

I am pleased to present the Annual Report of the Technology Innovation Agency for the financial year 2012/13. This year marks the third year since the establishment of TIA and there have been notable achievements and challenges in that period.

***Ms. Khungeka Njobe***

During the period under review, TIA has continued to play its role as a facilitator of technology innovation through the launch of the Animal Health Innovation Cluster and Uyilo E-mobility programme. These initiatives are aimed at partnering with industry players both in the private and public sector. Through these partnerships, the potential of technology innovation will be unlocked in a collaborative effort, thereby stimulating an enabling environment for technology innovation.

A more robust and structured mechanism is required to unearth viable ideas and promising intellectual property that can be progressed through the innovation value chain. It is with this in mind that a new programme, the Seed Fund, was approved in the 2012/13 financial year to strengthen partnerships with Universities. The Fund is aimed at funding early stage research projects that can be further developed into fundable projects.

The Board is encouraged with efforts to "crowd in" more players into the national system of innovation and with strengthened partnerships with Higher Education Institutions. Collaborations with the Science Councils are not about ensuring that TIA makes connections with local research institutions, but that the process of collaboration has an impact. Strategic programmes with the HSRC, ARC, MRC and CSIR assist to create a favourable environment to develop and deploy technology innovations, in order to achieve both social and economic benefits.

Investment in fundamental research does not automatically result in profits, therefore a healthy innovation ecosystem is necessary to close the loop between R&D investments through to innovations that increase profits in the commercial economy. Strengthening of this ecosystem requires the participation of all key role players in order to fast track commercialisation. This Agency's innovation programmes have managed to bring industry, university, and funders together to build capabilities for our country to play a meaningful role in emerging technology areas that target global markets.

The Agency also recognises the critical importance of the youth as future innovators in an economy that needs to catch up with other emerging economies. It is encouraging to note the uptake of the Youth Technology Innovation Fund, which was launched during the period under review. I want to congratulate the team for delivering yet another unqualified audit opinion, demonstrating the effort and progress the organisation has made within a short period of time since establishment.

Although progress has been made towards the achievements of the Agency's strategic objectives, considerable effort still needs to be made to enhance stakeholder relations to generate buy-in and support for TIA initiatives. The Agency still has room to improve internal efficiencies in order to respond to challenges facing the innovation system with speed and urgency. Management has been tasked to accelerate plans already underway to address these challenges.

During the reporting period, the 3 year TIA institutional review was undertaken under the guidance of the Department of Science and Technology. The Board will consider the recommendations of the report to inform the future strategic direction of TIA.

**Acknowledgements**

On behalf of the Board Members I extend my sincere thanks to the former Board under the leadership of the Chairperson, Dr. Mamphele Ramphele, for overseeing TIA during its foundational years.

I extend a warm welcome to all the new Board Members. I am looking forward to working with them as we build TIA to be a strong leader and catalyst of technology innovation, significantly contributing to South Africa's economy.

I would like to take this opportunity to thank the staff at TIA for their commitment to the successful implementation of the Agency's programmes. I acknowledge the Executive Team under the leadership of the Chief Executive Officer, Mr. Simphiwe Duma, for all the work done in stabilising the organisation and raising the profile of TIA as a leading innovation agency. I thank the Honourable Minister, Derek Hanekom, and the staff at the Department of Science and Technology for guidance in shaping the future of TIA.

**Khungeka Njobe**
Chairperson of the Board

# CEO'S REVIEW

***Mr. Simphiwe Duma***

TIA's core objective is to support the development and commercialisation of competitive technology-based services and products. As a result of sustained support of technology innovation, TIA funding is able to develop better capacity for the development of products, processes and services that address a need in the market and thus demonstrate commercial potential. Intellectual Property, including patents, trademarks and plant breeders' rights, not only contribute greatly to improving the capacity of South Africa's innovation system, but also enhance the competitiveness of local technologies and industries in global markets.

TIA has been on a strategic journey to unleash the potential of technology innovation to drive the South African economy. This year's annual report marks three years since the establishment of the organisation. The Agency has over the last year built a strong foundation upon which to establish a sound organisational environment that will sustain its delivery of results over time. We have continued to strengthen the leadership team with the appointment of the Chief Operations Officer, Mr. Mkhululi Mazibuko, and the Company Secretary, Advocate Tlotliso Polaki, to have a full complement of the Executive team.

**Facilitating the progression of technologies from proof of concept to commercialisation**

Our mandate is to support the State in stimulating and intensifying technological innovation in order to improve economic growth and the quality of life of all South Africans by developing and exploiting technological innovations. In the year under review, a total of 544 technology-based products, processes and services were developed through our various funding programmes, including Technology Stations and Platforms. Technology support in the form of product and prototype was provided to 1 770 entrepreneurs through the Technology Stations and Institutes of Advanced Tooling.

A number of investments remained at premarket stage with 5 investments commercialised during the reporting period. A commercialisation pilot programme was initiated to identify projects that can be progressed to market ready stage. After reviewing 60 of TIA's investments, 10 projects were selected and a workshop programme was implemented to understand the practical challenges being faced by TIA's investees in commercialising their innovations. Out of the initial ten, five of the projects were shortlisted and a programme of second round funding and non-financial business support is being implemented.

**New funding programme - Seed Fund**

The South African Higher Education System, specifically the universities, are established primarily to teach and extend the frontier of knowledge through research. Most universities have developed mechanisms to combine their core purpose with the ability to commercialise their research. However, their ability to commercialise research is sometimes hampered by the absence of early stage seed capital. We have responded to this challenge and in consultation with these institutions, established a Seed Funding programme to assist universities in bridging financing requirements to translate university research outputs into fundable ideas for commercialisation.

The purpose of the Fund is to increase the rate of commercialisation of viable intellectual property of South African technologies emanating from Higher Education Institutions (HEIs) as well as to develop a pipeline of investments from HEIs that can feed into our other funding programmes.

The initial annual allocation for the programme is R25 million and will be reviewed based on the level of take up.

### Facilitating an enabling innovation ecosystem

As a leading innovation agency, we have positioned the entity as a connector that brings together a whole range of expertise from different organisations to work together in multi-disciplinary teams towards the development and commercialisation of affordable products and services for the benefit of the country. During the 2012/13 financial year the Animal Health Cluster was launched in partnership with key stakeholders within the National System of Innovation, being the University of Pretoria, ARC, CSIR, NRF and OBP (page 28). In addition, the Uyilo E-mobility programme was launched in partnership with the Nelson Mandela Metropolitan University, Nelson Mandela Bay Municipality, Nissan, BMW, Siemens, Powertech/Willard and Eskom (27).

### Staff engagement

The organisation's strength lies with its people and we are concerned about the high staff turnover which is above the national average of 10%. Efforts made during the financial year to invest in our staff included hosting a year end function to recognise staff for their contribution to the organisation; and a motivational talk by an international speaker.

We congratulate Ms. Matshidiso Matlolane, GM: IT and KM for receiving the employee of the year award for 2012/13 for her efforts and leadership in making the IT and KM unit a reliable support function within the organisation.

### Enhancing organisational effectiveness and efficiencies

As the organisation grows and positions itself to be a world class innovation agency, there were a number of initiatives undertaken during the year to enhance the organisation's effectiveness and efficiencies. The Agency initiated an international benchmarking study to gain insights from other leading agencies above their investment approach and best practice process implementation.

Concurrent to the study, the Department of Science and Technology instituted a three year institutional review in line with the recommendations made by the Ministerial Review Committee that was charged with the responsibility of reviewing the National System of Innovation. The key objectives of the review are to reflect on the fitness of purpose of TIA operations and the assessment of its strengths and weaknesses based on its strategy and performance since its inception to date.

We have made significant progress towards getting the Agency ready for ISO 9001 certification. A number of key business processes were mapped and modelled. The organisation's Enterprise Architecture for optimising the Agency's information systems and technologies to deliver business value, was developed. A third party online system for evaluation and monitoring of projects and investments was piloted in accordance with the Agency's investment management value chain. The system will be customised according to functional requirements, as defined by the business process, to improve operational efficiency.

### Financial Performance

The Financial Statements of the Agency comprise the Group Financial Statements whereby TIA is reflected as a Controlling Entity and the consolidated companies together with TIA's financial results are reflected as an Economic Entity. The Agency has, in the year under review, consolidated 13 subsidiary companies (these are companies where the Agency holds more than 50% shareholding and/or has significant voting rights), 31 associates (these are companies where the Agency holds more than 20%) and 4 minor investments (these are companies where the Agency holds less than 20%). The Finance team made a conserted effort to ensure that the consolidation exercise was completed in an efficient and effective manner, while ensuring that the Agency still maintained its unqualified audit status from the previous financial year.

It is a great pleasure to announce that the Agency has yet again received an unqualified audit opinion in both the Agency as well as the Group.

In the year under review, the Agency received an MTEF allocation amount of R456 million, representing a 5% increase from the previous financial year. In addition to the MTEF allocation, the Agency received R24 million for ring-fenced projects which the Agency is managing on behalf of the Department of Science and Technology. Other income, which amounts to R41 million, comprises interest earned from the Agency's bank accounts, royalties received from investee companies, dividends received from investee companies and management fees. The Agency has incurred a total expenditure of R576 million, 56% of which relates to grants disbursed to various projects funded by the Agency. R30 million of the incurred expenditure represents non-cash items such as depreciation of fixed assets as well as impairment of the Agency's investments. These activities resulted in a deficit of R54 million for the year, which has been absorbed by the reserve funds that were carried forward from the previous financial year 2011/12.

**Plans for the year ahead**

The outcomes of the international benchmarking study and the DST three year institutional review will inform interventions aimed at moving the Agency forward on its path to becoming a world class entity. TIA will thus be better poised to leverage local and foreign funding as well as attract technical partners.

A new Board was appointed on 1 May 2013 to steer the organisation over the next 4 years and TIA is looking forward to working with them to build on the foundation of the past.

**Acknowledgements**

We express our gratitude to the guidance and support of the outgoing Board under the stewardship of Dr Mamphele Ramphele, for overseeing the seamless merger and integration of the previous seven entities into TIA. The Honourable Minister Derek Hanekom and staff in the Department of Science and Technology have been a great team to work with. We appreciate the oversight role of the honourable members of the Portfolio Committee on Science and Technology under the leadership of the Chairman, Honourable Dr N Ngcobo.

To all TIA staff, thank you for your efforts in contributing to the well-being of our country by making sure that the Agency delivers on its mandate.

**Simphiwe Duma**
Chief Executive Officer

# SECTION 1
## MANAGEMENT

## BOARD MEMBERS

### MS. KHUNGEKA NJOBE (CHAIRPERSON)

**Qualifications:**

- BSc Hons in Biology
- MSc in Zoology

**Board Memberships & Committees:**

- Chair of the Boards of Sasol Inzalo Public Limited and Sasol Inzalo Public Funding Limited
- Director of Safcol and Chair on the Human Resources and Remuneration Committee

### MS. HELEN BROWN

**Qualifications:**

- BA (Social Sciences)
- HD Personnel Management

**Board Memberships & Committees:**

- Member of the Technology Innovation Agency (TIA)
- Board Member of the Qualifications Subcommittee of the Umalusi Board

### MR. FADL HENDRICKS

**Qualifications:**

- BSc (Chemical Engineering)

**Board Memberships & Committees:**

- Non-Executive Director of Pelchem (Pty) Ltd
- Non-Executive Director of Litha Healthcare Group Limited
- Non-Executive Director of the Centre for Proteomics and Genomic Research (CPGR)

## BOARD MEMBERS (CONTINUED)

**PROF. DAVID ELLIS KAPLAN**

**Qualifications:**

- BA
- BComm
- MA
- D.Phil

**Board Memberships & Committees:**

- None

**DR. STEVE LENNON**

**Qualifications:**

- BSc
- MSc (Engineering)
- PhD

**Board Memberships & Committees:**

- Chairperson of the National Advisory Council on Innovation
- Chairman of the Technology Services International (TSI) Ltd
- Member of the Coal Industry Advisory Board

**DR. BONAKELE MEHLOMAKULU**

**Qualifications:**

- PhD (Chemical Engineering)
- MSc (Organic Chemistry)
- BSc Hons (Chemistry)

**Board Memberships & Committees:**

- Member of Eskom Holdings SOC (Ltd)
- Member of SABS Commercial SOC (Ltd)

# BOARD MEMBERS (CONTINUED)

**ADV. MOTLATJO JOSEPHINE RALEFATANE**

**Qualifications:**

- B.Proc
- LLB
- Admitted Advocate of the Supreme Court

**Board Memberships & Committees:**

- Non-Executive Director: Road Accident Fund (RAF)
- Chairman of the Human Capital and Remuneration Committee of the RAF
- Member of the Regulating Committee for Meteorological Services

**MR. SIMPHIWE DUMA (*EX-OFFICIO*)**

**Qualifications:**

- BSc Engineering (Electrical)
- M Engineering (Electronics)
- PG Diploma (Engineering Business Management)

**Position/Affiliation:**

- Former Chief Executive and chief engineer at Psidot Technology Holdings
- Former Chief Engineering Consultant at Lebone Engineering
- Senior member of the South African Institute of Electrical Engineers
- Professionally registered Engineer with the Engineering Council of South Africa
- Fellow at South African Academy of Engineering

**MS. ROSETTA XABA**

**Qualifications:**

- BSc
- BCompt and BCompt Honours
- Post Graduate Diploma in Accounting, CA (SA)

**Board Memberships & Committees:**

- Non-executive Director and Chairperson of the Little Eden Society for the Care of persons with Intellectual Disability
- Non-executive Director and Chairperson of the audit committee for FINBOND Limited
- Trustee of the Tharisa Community Trust

# BOARD MEMBERS (CONTINUED)

### MR. MOHAMED AHMED MOOLLA

**Qualifications:**

- MBA
- BCom
- BSc Engineering (Chemical)

**Board Memberships & Committees:**

- Director and Audit & Risk Committee Member at Telo Rolling Deck Leasing (Pty) Ltd
- Director Interactive Trading 146 (Pty) Ltd
- Director South West Wilderness (Pty) Ltd
- Chairperson of DTI's Support Programme for Industrial Innovation SPII
- Evaluation Brief Management Committee Member of SPII

### DR. PETRO TERBLANCHE

**Qualifications:**

- BSc
- BSc Honours
- MSc
- DSc

**Board Memberships & Committees:**

- None

# MANAGEMENT TEAM

Chief Operations Officer:
Mr. Mkhululi Mazibuko

Chief Financial Officer:
Ms. Barbara Kortjass

General Manager:
Board Secretariat
Adv. Tlotliso Polaki

Chief Executive Officer:
Mr. Simphiwe Duma

Group Executive:
Corporate Affairs
Ms. Makgopelo Mkhwanazi

Group Executive:
Biotechnology Sectors
Dr. Sibongile Gumbi

Head: Legal Services:
Mr. Nkhangweni Ndou

Group Executive:
Industrial Sectors
Ms. Pontsho Maruping

# SECTION 2
## HUMAN RESOURCES

## OVERALL STAFF

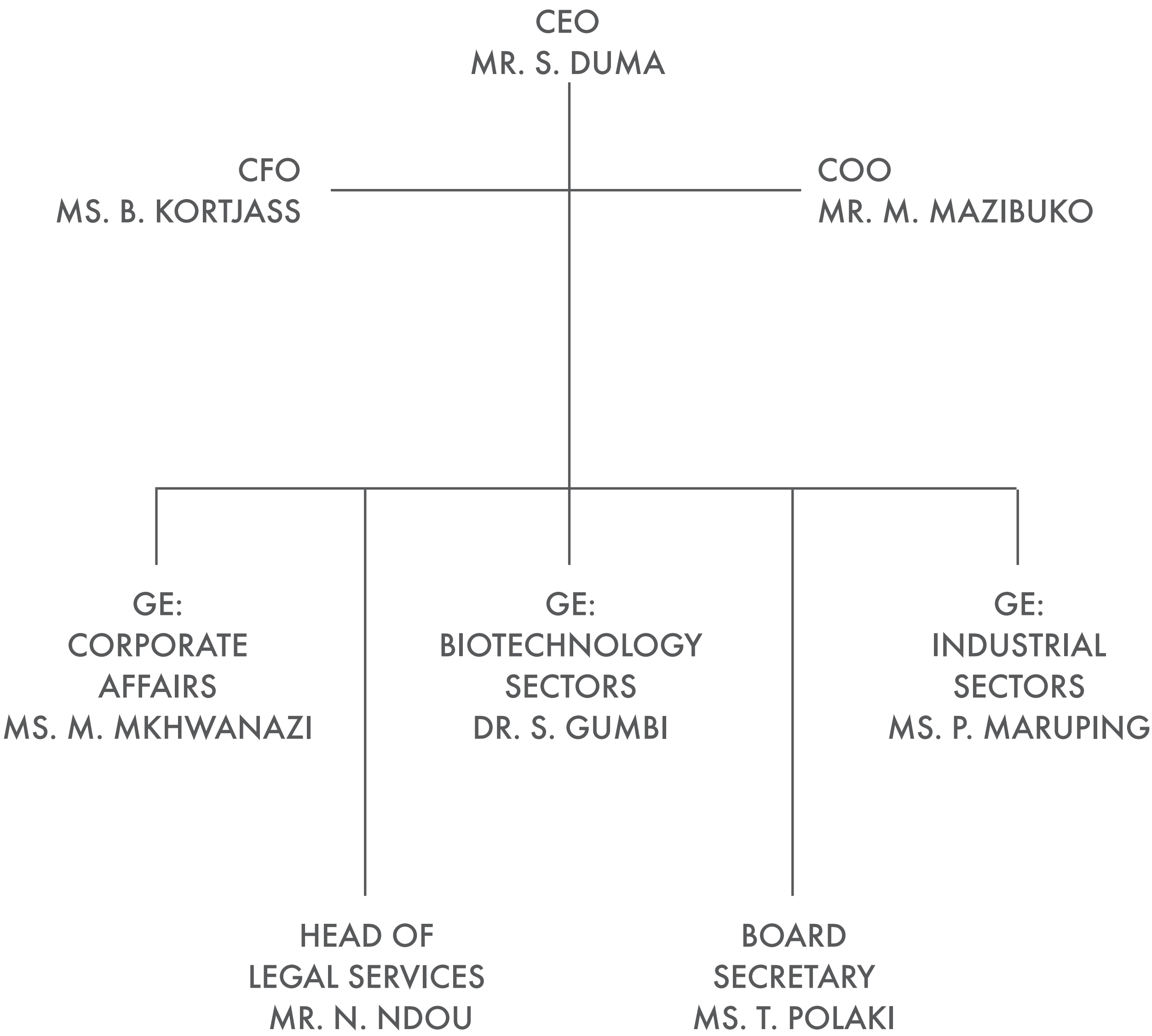
The table below illustrates the total headcount per occupational level as at 31 March 2013. The majority of the employees are at the professional and technical levels, which is indicative of TIA's core business and skills.

## TIA HEAD COUNT FOR 2012/13 FINANCIAL YEAR

| Occupational Levels | Male | | | | Total Male | Female | | | | Total Female | Foreign Nationals | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | C | I | W | | A | C | I | W | | Male | Female | |
| Top Management | 2 | - | - | - | **2** | 4 | - | - | - | **4** | - | - | **6** |
| Senior Management | 11 | - | 1 | 3 | **15** | 4 | - | 1 | 2 | **7** | - | - | **22** |
| Professionally Qualified and experienced specialists and mid management | 24 | 1 | 2 | 3 | **30** | 22 | - | 10 | 9 | **41** | 2 | - | **73** |
| Skilled Technical and academically qualified workers, junior management, supervisors, foremen and superintendents | 20 | 2 | 1 | 5 | **28** | 35 | 2 | 2 | 8 | **47** | - | - | **75** |
| Semi-skilled and discretionary decision making | 1 | - | - | - | **1** | 21 | 6 | - | 3 | **30** | - | - | **31** |
| Unskilled and defined decision making | 2 | - | - | - | **2** | 5 | - | - | - | **5** | - | - | **7** |
| **Total** | **60** | **3** | **4** | **11** | **78** | **91** | **8** | **13** | **22** | **134** | **2** | **-** | **214** |

The overall headcount has increased from 206 in the Financial Year 2011/2012 to 214 in the 2012/2013 Financial Year.

## ORGANISATIONAL STRUCTURE




## THE EXECUTIVE COMMITTEE (EXCO)

## STAFF MOVEMENTS

The Agency's turnover rate was 18% at the end of the financial year. Of the terminations, 32% is from technical levels, 29% from senior Management and 26% from middle Management.

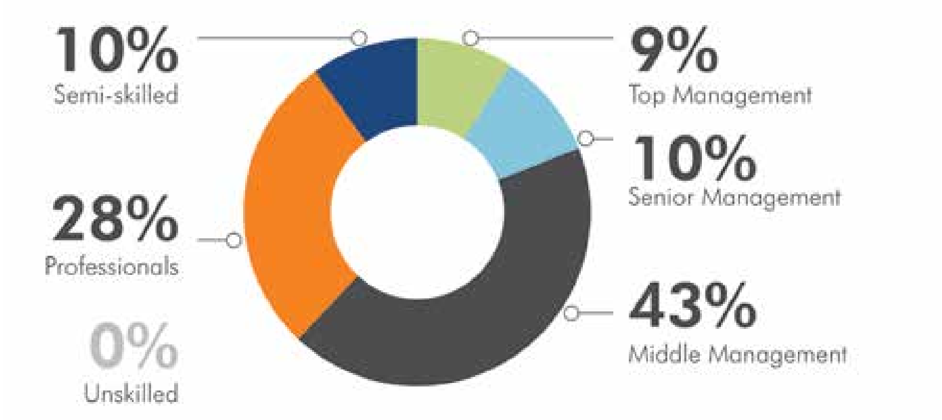
TIA had 48 terminations, 4 of which were involuntary, 10 which were end of contracts for interns. Efforts have been made to ensure the lost skills are replaced within a reasonable timeframe.

In total 56 new appointments were made. This exceeds the number of terminations, due to additional positions triggered by the new TIA structure as approved beginning of the 2012/2013 Financial Year.

The graph below outlines the terminations and the appointments equity levels, with middle management being the most recruited area.


## TRAINING AND DEVELOPMENT

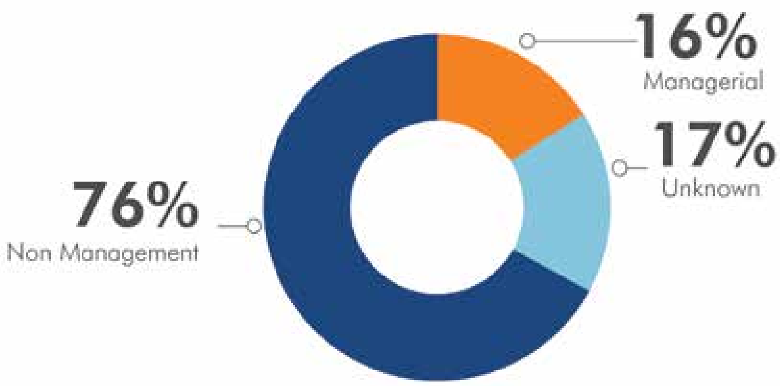
The Agency has adopted a framework for study assistance to support individual learning and development. The framework focuses on supporting both formal and informal learning to enhance the current skills and to prepare employees with potential for future roles. The highest investment is at middle management and the professional levels in line with efforts made to develop core skills in the organisation.




TRAINING PER OCCUPATIONAL LEVEL

## EMPLOYEE WELLNESS PROGRAMME (EWP)

The EWP is a crucial investment in the well-being of employees aimed to improve staff retention levels, lower absenteeism, improve performance and enhance employee morale. ICAS is the appointed service provider to support the psychosocial well-being of employees. The overall engagement rate with this service has moved from 77.4% in the previous financial year to 84% in the current year, which translates to a 7% increase. The graph below outlines the percentage engagements with the services.




## MEDICAL AND RETIREMENT BENEFITS

TIA's employees participate as members of either Discovery Health or Bestmed Medical Schemes, or become dependants on their spouses' medical schemes. The Agency contributes toward a Group Retirement Fund through Old Mutual's Superfund Evergreen.

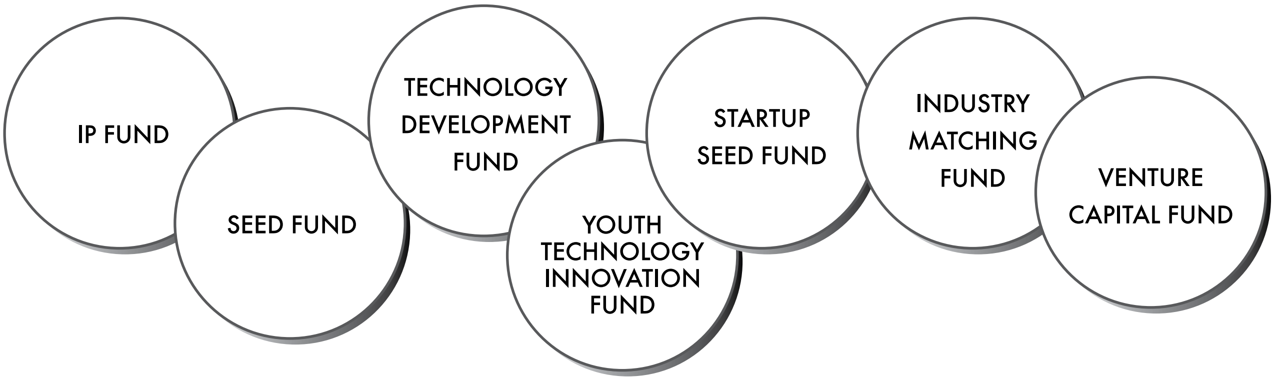
# SECTION 3
## INVESTMENT PORTFOLIO

# SECTION 3

The innovation value chain view presents innovation as a sequential, three-phase process that involves idea generation, idea development, and the diffusion of developed concepts. TIA employs various instruments and interventions to support stakeholders through all the phases of the innovation process, to facilitate successful translation of ideas to market. TIA has been able to strengthen the pipeline of technology innovations it developed during the course of the year, by intensifying intellectual property protection.

# FUNDING PROGRAMMES

TIA manages its portfolio of investments through seven funds in the form of royalties, loans and equity where appropriate. These are structured in a way that responds to customer needs and maximises the potential return on an investment. The diagram below depicts the financial offerings that we provide across the various stakeholder segments.




**Royalty-grants Loans, Equity**
**Customer centric solutions along the innovation value CHAIN**

## IP FUND

The Fund was previously part of the Idea Development Fund, which has been discontinued for operational reasons. It was targeted at SMMEs to encourage and support IP protection through the filing of patent applications and further persuit of these applications.

## SEED FUND

This is a new initiative that was approved during the financial year. The purpose of the Fund is to assist HEIs in bridging financing requirements to translate research outputs into fundable ideas for commercialisation purposes. The fund is expected to expedite funding to projects that require funding of less than R200 000.

## TECHNOLOGY DEVELOPMENT FUND

This is a royalty or grant instrument for Technology Stations and Platforms and to consortia of HEI's and SC's where TIA agrees to fund pre-commercial research without an industry partner.

## STARTUP SEED FUND

The Equity Fund is meant to assist small businesses that have a working prototype but have not reached profitability. An equity with preference shares is normally deployed.

## INDUSTRY MATCHING FUND

This fund offers matching funding to small, medium and large enterprises where a partnership with small companies and HEIs and SCs is incentivised.

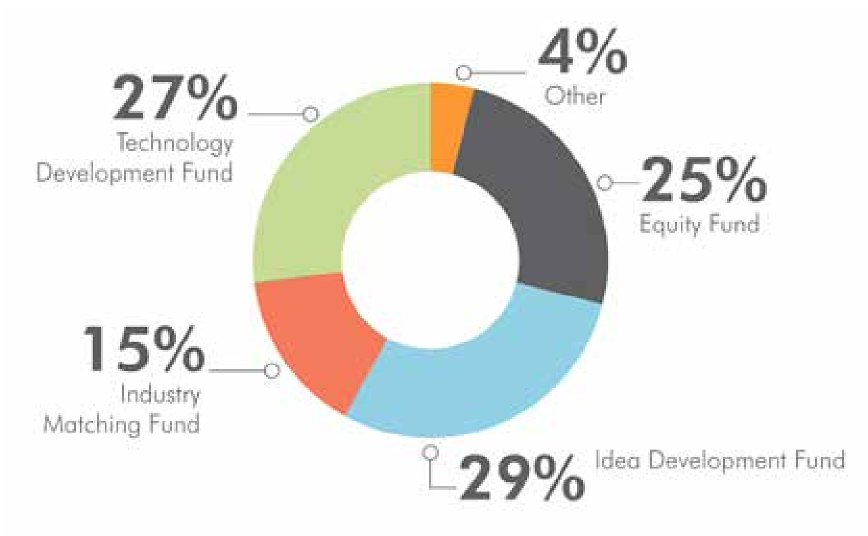
## YOUTH TECHNOLOGY INNOVATION FUND

The YTIF is a fund created to promote and stimulate the culture of technology innovation and entrepreneurship among young South Africans between the ages of 18-30, by providing access to financial and business support. In 2012/13, the fund supported young entrepreneurs to develop 12 prototypes at the various TIA Technology Stations. Out of these, three are undergoing SABS Testing and Certification through TIA support.

## VENTURE CAPITAL (VC) FUND

The objective of the Fund is to co-invest with privately managed VC funds and is targeted at stimulating the venture capital industry in South Africa for early stage pre-revenue investments. We intend to invest R100 million subordinated funding per year to two to three new VC firms on condition that these firms raise an equivalent amount of private sector funding. The programme is still in its infancy.

The diagram below depicts the distribution of the applications received during the year per funding instrument.

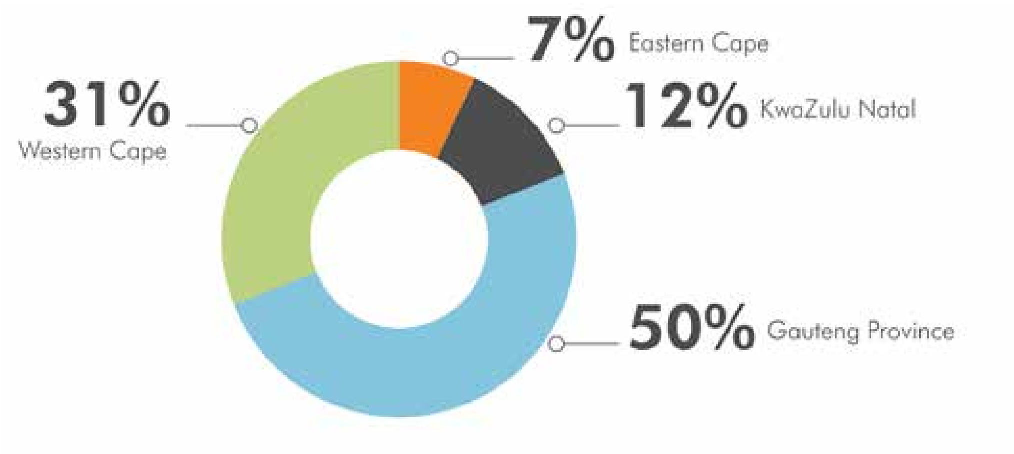


Although almost 30% of the funding applications were for the Idea Development Fund, they only accounted for about 1% by rand value. Most of the applications did not meet TIA's funding criteria.

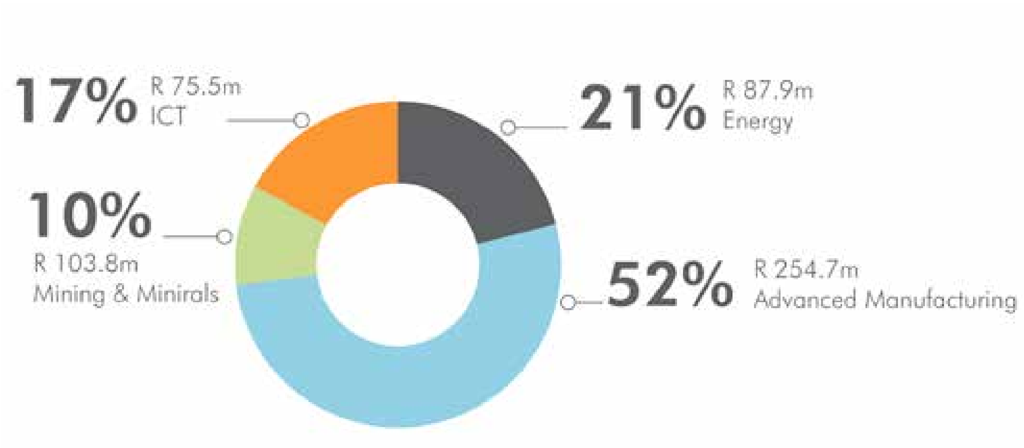
## PORTFOLIO SPREAD

Our total portfolio of active investments is about R1,2 billion made up of 94 projects and investments in Industrial and Biotechnology Sectors. The projects are at various stages of technology development and are spread across 9 provinces of the country as a result of legacy investments. The purpose of our regional strategy is to broaden access of TIA products and services to the rest of the country.

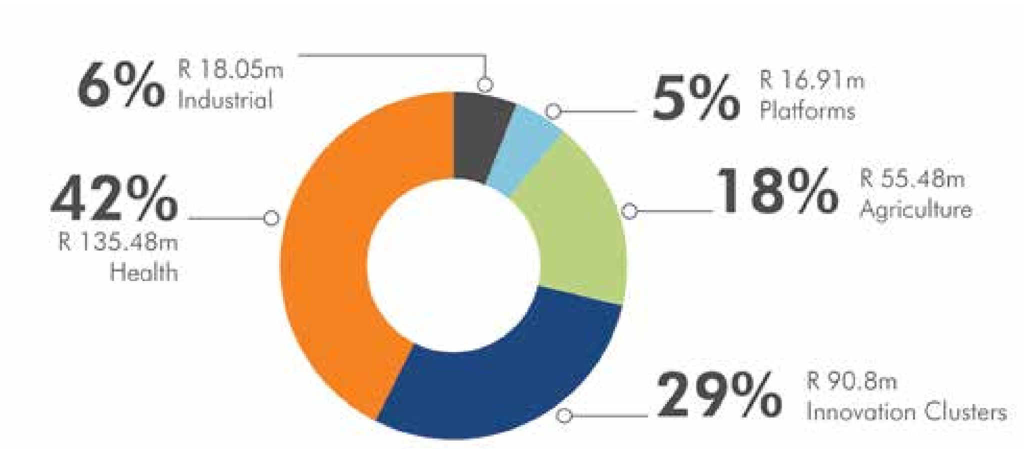
### REGIONAL DISTRIBUTION - TOTAL DISTRIBUTION



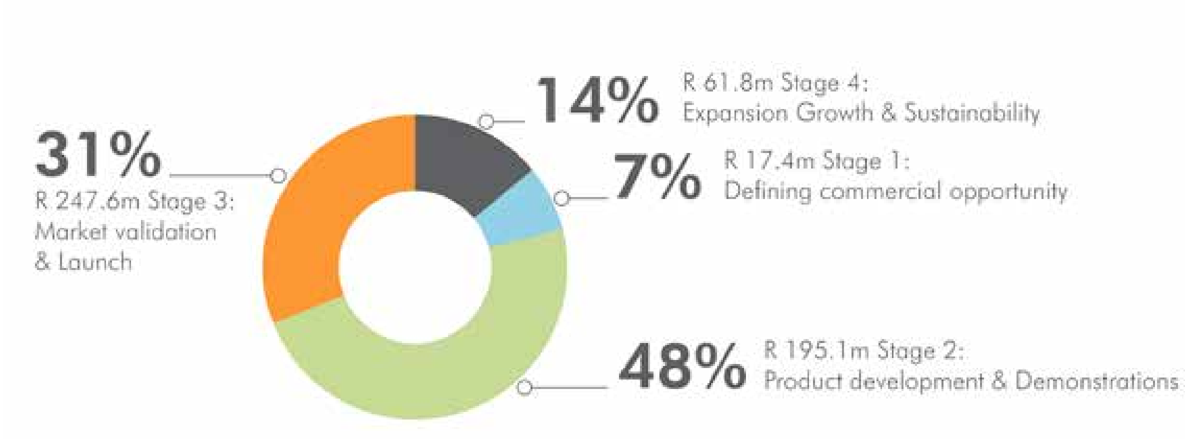

### INDUSTRIAL SECTORS: SPREAD OF CONTRACTED INVESTMENTS



## BIOTECHNOLOGY SECTORS: SPREAD OF CONTRACTED INVESTMENTS




## SPREAD OF TECHNOLOGY DEVELOPMENT STAGE




# SPREAD OF TECHNOLOGY DEVELOPMENT STAGE

## LOWERING INNOVATION HURDLES

TIA's technology infrastructure consists of technology platforms and stations, housed at higher education institutions to deliver technology assistance to SMMEs. These platforms and stations have state-of-the art equipment and highly skilled individuals in specialist fields to lower innovation hurdles.

## TECHNOLOGY STATIONS AND INSTITUTES OF ADVANCED TOOLING (TS & IAT)

Technology Stations and tooling stations house high-end infrastructure and skills to promote the development of industries in manufacturing, chemicals, electronics and textiles. The stations provide comprehensive innovative solutions for SMMEs within the relevant industries in the form of technology-based solutions, knowledge and skills transfer and improving the innovative capabilities of the SMME's. The network of the TS initiatives is aimed at promoting technology and enhancing SME participation, as well as cost-sharing with the private sector in promoting diffusion of global competitiveness.

The TS & IATs create enabling environments for innovation within SMEs for demonstration and training facilities established at ten universities. A total of 210 staff members and 130 students were engaged in tertiary programmes for the calendar year. These programmes are sector-focused to address the technology needs of 1 425 enterprises, particularly in the product or process improvement areas.

The participating Universities of Technology continue to benefit from TIA support via technology upgrading, scarce skills development and industry engagement activities from the TS & IATs. In 2012/13 financial year, selected technology stations commissioned high-end equipment worth over R21 million. This high-end equipment and expertise will be expanding the national infrastructure to support South Africa in the NSI.

The TS & IAT programme continues to be instrumental in SMEs' technology absorption, innovation and technology development activities. In all, 480 Product and Process improvements were conducted in the year under review with technological support provided by TS & IATs. A total of 130 interns participated in the industry support internship programme at the various TS & IATs. The internship programme continues to provide useful training and experiential learning for undergraduate and post graduate students in the field of Science, Engineering and Technology.

During the financial year, TIA approved additional funding to the Technology Stations for 20 projects; 11 specifically for SMEs, 6 for overall industry support through selected companies and 3 driven by stations' internal technology developments. A total of R8,2 million from clients' contributions is co-invested towards the station operational activities in collaboration with HEIs and other Development Finance Institutions such as the IDC's SPII (Support Programme for Industrial Innovation). These collaborations are critical to enable TIA to reduce fragmentation and duplication of efforts in the establishment of more Technology Stations in under-served provinces. In March 2013, TIA signed an agreement with VUT to host and operationalise a technology station in the Northern Cape, Upington.

## TECHNOLOGY PLATFORMS

Platforms are investments in infrastructure, state-of-the-art equipment, and expertise (capabilities) that provide solutions and predefined service to researchers and industries to enable them to compete with their peers internationally. The portfolio has leveraged R46.5 million in direct co-funding into the recapitalisation of existing technology platforms from public and private sources to match an allocation of R21.3 million made by TIA.

Some of the highlights include the Drug Discovery and Development Platform, known as the H3-D Platform, made news in 2012/13 when it announced the discovery of a new drug candidate, code-named MMV 390048. This compound has a number of unique features, which makes it superior to all known clinically used antimalarial medicines. It kills all known forms of resistant strains of the malaria parasite and demonstrates a complete cure in animal models infected with the parasite with a low single dose. The compound is also known to kill the malaria parasite at different stages of the life cycle, including the stage which is transmitted back to the mosquito. This makes it a potentially effective compound to control and cure malaria infections as well as block the transmission of the disease.

This discovery is the result of a partnership between H3-D and Medicines for Malaria Ventures (MMV). Two further backup candidates have been developed with improved solubility and better toxicity profile and MMV intends to invest in further clinical development of the compound.

The Centre for Proteomic and Genomic Research (CPGR) developed two new processes that have potential application in the South African biotechnology sector. The first is for RNA sequence to screen for potential probiotics for children and the other is a number of sequencing-based workflows for HLA genotyping for the National Health Laboratory Services. HLA typing is a standard way of testing samples in the field of blood transfusion, organ/tissue transfer, and vaccine development. The CPGR work is aimed at reducing the cost of these methods by using their sophisticated workflows.

The Metabolomics platform has established the proof of concept for the diagnosis of chronic pain syndrome, paving the way to a potentially revolutionary diagnostic system for chronic pain. They have also patented a new method for quickly and more cost-effectively distinguishing between microbial pathogens. The aim is to develop this technology into an easy to use and cheap point-of-care test. National Genomics undertook two sequencing projects with the South African Sugar Research Institute (SASRI) aimed at manipulating the mechanisms that regulate sugar production so as to enhance sugar yields. The second project studies HIV pathogenesis for the University of KwaZulu Natal using the 454 Sequencing technology to detect HI viral polymorphism at a sensitivity of less than 1%.

## FACILITATING AN ENABLING INNOVATION ECOSYSTEM

TIA supports strategic initiatives targeted at improving technology transfer to SMMEs and technology entrepreneurs. These TIA-led initiatives include:

### TECHNOLOGY INNOVATION PROGRAMMES

Technology Innovation programmes bring together all the key actors in a specific sector to support, promote, and accelerate innovation by leveraging partnerships. The primary aim of these programmes is to promote globally competitive industries by developing local capabilities through collaboration. The value of the programme is in bringing together government, industry, researchers, and suppliers to developed key enabling technologies for improving the competitiveness of the industry.

TIA launched a five (5) year national multi-stakeholder E-Mobility Technology Innovation Programme, named Uyilo E-Mobility Programme, to facilitate the development and commercialisation of South African developed electro mobility technologies, to ensure their participation in the global supply chain. The Programme aims to support local development and commercialisation of electro mobility technologies as well as to facilitate development of scarce skills and support development of enterprises that will contribute towards the creation of new jobs. The program has the full support of key industry stakeholders, such as Powertech/Willard (on battery systems/technology testing), Nissan, BMW, Siemens, the Nelson Mandela Bay Municipality and Eskom. These key partnerships are a reflection of the true mix of skills, expertise and infrastructure support required to develop and commercialise new technologies in the area of electric vehicle systems.

The outcomes of the Programme include increased collaboration among private companies, state-owned entities, public and private research organisations, and the public sector. The private public partnership is expected to promote and accelerate focused research activities, technology development and commercialisation in key technology areas such as in energy storage, electric motors and drives, lightweight materials, information communication and charging infrastructure. Uyilo has various industrial partners, from international car manufacturers to local technology companies.

## INNOVATION CLUSTERS


Innovation clusters are regionally focused collaborations targeted at driving innovation by maximising skills and expertise and also efficiently filling the critical gaps in the system for the benefit of all, rather than individual research groups or only a few companies. The funding model allows for pre-competitive R&D where open innovation and collaborations are encouraged whilst competitive funding in the later stages of the innovation value chain to maintain competition in the industry that will benefit the industry and civil society. The model is expected to lead to the successful transfer of ideas and technologies from the laboratory to manufacturing facilities, creating economic value in that process.

South Africa's livestock sector received a significant boost with the launch of the Tshwane Animal Health Cluster, a TIA initiative aimed at developing local solutions for animal diseases. The initiative has brought together the best minds, skills and expertise in the field of animal health in the Gauteng province, to develop new products and services for South Africa's livestock industry. The participating institutions include the Agricultural Research Council (ARC), National Research Foundation (NRF), University of Pretoria (UP), Onderstepoort Biological Products (OBP) and the Council for Scientific and Industrial Research (CSIR). The cluster is good news for the livestock industry's fight against outbreaks such as foot and mouth disease (FMD), a highly contagious viral infection that affects cloven-hoofed animals, African horse sickness virus, Avian Flu and Rift Valley Fever.

In its first year of operation, the Animal Health Cluster produced 63 applications from ARC, UP, CSIR & OBP worth R130 million. Of these, 21 have been approved for funding to the value of 90,8 million. The funding will revitalise animal vaccine manufacturing to address diseases of strategic and economic importance in South Africa; find solutions to animal production diseases through technology and innovation; and contribute towards developing skills and expertise in the animal health field.

## BRIDGING THE INNOVATION CHASM

Many ideas and technologies never make it to the market. There are many reasons why start-up companies with their innovations fail to become sustainable businesses. The high probability that a start-up company will fail before a steady stream of revenues is established, means that TIA has to be involved in assisting investment projects throughout the technology innovation value chain. TIA's investment portfolio spans the downstream end of the technology innovation value chain from establishing proof of concept to commercial deployment of a product, process or service. Collaborations with strategic partners are essential in order to optimise the ability of SMEs to access markets, knowledge and technologies that will improve the ability to become commercially successful. This section looks at achievements of select projects, along this value chain.

One of the investments that has progressed closer to commercialisation in the current financial year, is the **Settled Bed Detector technology**. It is a novel design that detects the onset of slurry settlement in mineral processing pipelines, hence giving an early warning to potential pipeline blockages to the minerals industry. The instrument was initially intended for energy and water savings, but has evolved to the minimisation or elimination of blockages in slurry pipelines. The development of the instrument has progressed to an engineering prototype, which is ready for further testing and launch. The instrument can be retrofitted to various existing tailings disposal pipelines and other slurry streams to obtain performance data in situ. The ability to use an external sensor, attached to the outside of a thick pipe wall, and to detect flow or no-flow conditions on the immediate inside of the pipe is novel. This instrument will enable the implementation of better process control, resulting in water and energy savings, as well as alleviating unscheduled downtime due to pipeline blockages.

**Blue Cube Systems (Pty) Ltd** was established in 2001 with the purpose to develop, build and sell fast in-line mineral analysers for application in mineral beneficiation processes. A successful product, branded as the Blue Cube MQi in-line real-time mineral analyser, was developed with the financial support of the South African Innovation Fund and was successfully demonstrated during 2004. The company has sold units to clients in South Africa, Australia, Namibia, Botswana, Zambia and Chile. In 2013 Blue Cube Systems has significantly expanded its international presence to include Finland, Kazakstan, Papua New Guinea and Morocco.

**Kapa Biosystems** was founded in 2006 to develop next-generation PCR reagents. This investment offers a portfolio of best-in-class PCR reagents engineered using a high-throughput molecular evolution platform. To remain competitive, continued research takes place at Kapa's South African operations to develop a wide and growing product range that is exported globally resulting in a successful and highly profitable biotechnology business. This year, Kapa moved to larger premises to increase production capacity. The company currently has 58 employees at its South Africa operation and increased its manufacturing capacity tenfold. Sales are growing and a 30-35% a year increase is expected.

**Varibox CVT Technologies (Pty) Ltd** have received TIA funding (R7,1million) to progress the technology development of a new continuous variable transmission (CVT) automatic gearbox that costs less, weighs the same and is the same size as a manual transmission for the small vehicle application. Several patents have been registered in 13 Countries. Once the final development is complete, the intention is to market the product in the small automobile market through licensing the technology to existing original equipment manufacturers (OEM) i.e. specialist gearbox manufacturers.

**TIA invested in Tiisetso Dev Solutions (Pty) Ltd**, which developed the PowerCircuit Sentry device for fitting into low-cost housing to address the safe and efficient use of electricity. This is a 100% black owned and managed South African technology start-up company, which has developed the PowerCircuit Sentry device. The funding has gone to produce more than 100 units for a pilot installation with Tshwane Municipality.

The **ARTIST** project, a collaboration between the CSIR, East Coast Access and UCT and funded by the Technology Innovation Agency (TIA), has led to the development of the much-needed low-bandwidth video broadcast platform that will overcome the problem of poor video streaming on mobile devices.

A commercialisation agreement has been successfully negotiated with a spin-out company Tuluntulu (Pty) Ltd.

The **iDes** project was funded to produce software and hardware systems for simulating motor vehicles, which are to be used for training learner drivers before they operate real motor vehicles. A pilot training project was implemented in KwaZulu Natal, Eastern Cape, Mpumalanga and North-West schools in partnership with the Department of Transport. There was a significant improvement in the learner's and driving license performance. iDes technology may address the Government's aspiration that all high school learners complete their matric qualification with a driving licence.

**FemTech** start-up received its first order for AE-IGF-1 from the CellRx- Roche Diagnostics GmbH consortium. Roche will use the sample for market testing with a view to market and distribute AE-IGF-1 supplied by Femtech. AE-IGF-1 is a cellular growth factor that is used in the pharmaceutical production of therapeutic proteins as a replacement for animal derived fetal bovine serum. This is in compliance with regulatory requirements which exclude/prohibit utilisation of animal-derived ingredients in production of human pharmaceutical products.

A number of pre-market agricultural biotechnologies were developed during the course of the year. The main contributor towards the successful achievement of this target is the **Genomics of Quantitative Disease Resistance in African Maize Varieties** project, which has advanced several technologies to pre-market ready status.

A second project, the **Triticale as a Biofuels Feedstock** initiative, yielded two new varieties that have been filed with the Plant Improvement Act for Plant Breeders Rights (PBR) registration. In addition, one novel variety from the same project has been granted PBRs and is ready for commercialisation.

Another noteworthy achievement is the **Mutation Technology to Develop Indigenous Flower Bulbs** project, which has delivered 4 new indigenous bulbs mutants with registered PBRs that are ready for commercialisation. In addition, an Idea Development Fund agreement was concluded with Future Fynbos (Pty) Ltd for intellectual property and trademark registration in four new indigenous fynbos varieties in South Africa and Europe.

Two agricultural biotechnology investments reached commercialisation. The first is **iBatech**, which received regulatory approval under Act No. 36 of 1947 (Department of Agriculture, Forestry & Fisheries) for their plant extract-based adjuvant, indicated for application in tunnel tomatoes and for the new generation biological control agent, Vertigo. Vertigo has been registered by Microbial Solutions, through a CSIR license.

An important measure of the attractiveness and potential value of the Agri-biotech portfolio is the level of co-investment in selected investments – the unit was able to leverage co-investments of R6.4 million from shareholders of two investee companies.

Grey leaf spot is one of the most significant yield-limiting diseases in maize crops. TIA is funding the development and commercialisation of new genetic markers for grey leaf spot disease resistance that will be used to produce new inbred lines and hybrids with grey leaf spot resistance, specifically for African conditions.

To date, the project team has successfully developed technologies and related intellectual property in the form of Plant Breeders Rights and all innovations generated in the project have high commercialisation potential. The project is due to be completed end of June 2013 and has reached a critical phase in the innovation value chain, with the following technologies having been advanced to pre-market ready status:

- Two maize hybrids ready to start large scale commercial trials;
- Plant Breeder's Rights registration; and
- Four inbred lines containing patented DNA marker information called QTL's.

## DELIVERING SOCIO-ECONOMIC VALUE AND INCREASING SOCIAL PROSPERITY

A critical component of TIA's work is to deliver socio-economic value to the people of South Africa and by so doing, increase social prosperity. These end objectives are a long term goal and their achievement is dependent on driving projects towards self-sustainability. In terms of TIA's contribution towards Government's Strategic Outcomes, TIA contributes towards achieving Outcome 2: A long and healthy life for all South Africans; Outcome 4: Decent employment through inclusive economic growth; Outcome 5: A skilled and capable workforce to support and inclusive growth path; and Outcome 7: Vibrant, equitable and sustainable rural communities with food security for all.

Significant milestones were achieved by a number of TIA investment projects, these include the Animal Health Cluster initiative, the Nguni cattle project, as well as a new Malaria drug candidate.

Funding was provided to Solar Incidence Pty (Ltd) for development of a 125-litre glazed polymer-based (plastic) integral collector storage solar water heater system. Another round of funding was provided to NMMU to further develop the micro-algae application in the clean coal technology areas (coal agglomeration and briquetting), and the liquefaction of wet biomass to produce crude. The growing of micro-algae is done in the relatively inexpensive photo-bioreactors. The technology promises to reduce greenhouse gas emissions from coal-fired power stations wherein 10% biomass can be incorporated in the coal burnt in boilers, at the same recovering the water used in the photo-bioreactors. An investment was made in SWET Pty (Ltd), a University of Stellenbosch spin-off company, to further develop and obtain international certification of a 15 kW micro-wind turbine generator for the local and international markets.

# PARTNERSHIPS

## REGIONAL PARTNERSHIPS

TIA has established regional offices in Gauteng, KwaZulu Natal, Eastern Cape, Western Cape, Limpopo and Free State. Plans are underway to launch offices in Northern Cape (Upington), Mpumalanga and North-West. TIA's intervention in the various regions around the country contribute and align into the Regional Innovation strategies intended for socio-economic targets, national imperatives (e.g. job creation, health etc.), competitiveness and sustainability. At all the regions around the country, the players of the Provincial System of Innovation (PSI), Regional Innovation System (RIS) and Sectoral System of Innovation (SSI) are constantly engaged in order to drive alignment and achieve strategic partnerships. Through their collective efforts, the regions can realise economic growth and improvement in the lives of its communities.

TIA has identified key role players (stakeholders) in the Regional Innovation System. These include Policymakers (Provincial Department of Economic Development, Provincial Innovation Council, Department of Provincial and Local Governments, Department of Agriculture and Rural Development etc.); Financing companies (IDC, NEF, Trade and Investment Agency, Regional Funding Agencies etc.); Operators (Universities, FET's, Science councils, public R&D centres etc); and the private sector (industry societies, foundations, enterprises, Venture Capitalists etc).

A critical part of the organisation's growth has been to strengthen relationships with various stakeholders in the Provinces across the country. A major part of this drive was to identify key partners that could be crowded into the innovation management space with a view to developing strategic capital to enhance the delivery of the TIA mandate.

The Agency has signed Memoranda of Understanding with regional development institutions such as the Eastern Cape Economic Development Corporation (ECDC); Limpopo Economic Development Agency (LEDA); Free State Development Agency; The Innovation Hub in Gauteng (TIH); the KwaZulu Natal Agricultural Development Agency; and DUrban-baed SmartXchange. A major part of TIA's drive involve the development of capacities within these organisations as the major intermediaries through which TIA maximises its reach. TIA hereby assist these agencies to deliver on their mandates of economic development.

TIA's recent engagement with these organisations have led to the development and adoption of a clear Action Plan that spells key long-term projects and programmes to promote innovation in various Provinces. The plan identifies strategic focus areas that include:

- Building a culture of innovation through intensive awareness campaigns;
- Establishing a Regional Innovation Forum;
- Developing a Provincial Regional Innovation Strategy;
- Training programmes in innovation management;
- Developing a database of innovators within the Province; and
- Developing and supporting major strategic innovation projects in various sectors aligned to TIA strategic focus areas.

Leveraging on its relationship with Eskom, the two institutions have set up an Open Innovation Challenge, calling for locally developed ocean current power technologies that could be deployed in the Agulhas current, which has a potential of about 42 GW. About 35 applications were received from which 5 met the set criteria. TIA is expecting to receive these funding applications.

TIA has established a collaborative relationship with the Companies and Intellectual Property Commission (CIPC) that will focus on the commercialisation of IP and IP rights (a core competency of TIA) as well as the registration and protection of IP rights and corporate entities (a core competency of CIPC).

In terms of a Memorandum of Understanding, TIA and CIPC are to launch a project to identify and assist technopreneurs and SMMEs with protecting IP, managing it and using it as a strategic tool for commercialisation of technologies. A technopreneurs portal will be developed to facilitate further IP development, including targeted campaigns and interventions that respond to the real needs of these innovators.

## INTERNATIONAL PARTNERSHIPS

TIA has made concerted efforts to create international platforms and opportunities for the South African science, technology and innovation community to partner with some of the major global players around the world. The Agency has pursued this through participation in carefully selected international conferences and strategic engagements with targeted bilateral partners in SADC, Europe and the United States.

In June 2012, TIA's Chief Executive Officer attended the annual conference of the European Network of Innovation Agencies (TAFTIE) held in Cambridge (UK). TAFTIE is a group of 28 Innovation Agencies from 25 European countries which has established an intense collaboration in the field of the implementation of national technology programmes. TIA's participation provided a platform to learn best practices from an analysis of how other European Agencies run their affairs. It also enabled TIA to identify possible new strategic partners at a European level. The conference's theme of "Innovation Support to Stimulate Entrepreneurship and the Growth of Small Businesses" fitted perfectly with TIA's mandate and was the best platform for benchmarking TIA's strategic direction.

TIA has continued to strengthen existing bilateral relationships with its sister organisations such as OSEO in France and the Center for the Promotion of Industrial Innovation (CDTI) in Spain. These partnerships continue to be a great inspiration to the Agency, as they have served as partners against which TIA benchmarks itself towards achievement of a world class vision. Added to these, was the establishment of new relationships with the Dutch Research Council and the Swiss Commission for Technology Innovation. These provide immense opportunities in the biotechnology and industrial sectors.

The Technopolicy Network is a small but powerful knowledge hub in the Netherlands, with which TIA has partnered to promote innovation and institution-building within the SADC region. This strategic relationship opens new opportunities for TIA to leverage the Network's vast experience in providing networking platforms to exchange knowledge on how other countries approach innovation environments and management issues.

In the United States, TIA has partnered with the Massachusetts Institute of Technology (MIT) through the MIT International Science and Technology Initiatives and has established the MISTI-South Africa Programme. Notably, this will make TIA one of seventeen carefully selected members of the MISTI Programme and the only African innovation agency to be included in the Programme.

The Programme will promote joint collaborative projects between South African Principal Investigators and their MIT counterparts and will facilitate internships of MIT students that will bring world class research capacity into many of the TIA's fledgling investee companies. Through this partnership TIA will establish a small seed fund to place South African researchers and innovators in research facilities in major US pharmaceutical companies such as Novartis. This fund will also enable MIT to leverage further funding from its key partners in the US to grow the Programme.

TIA has also collaborated with the Massachusetts-South Africa Technology Fellowship Programme (M-SAT). The Programme is led by Bentley University in Waltham, Massachusetts, with the support of South African Partners and funding from the US State Department Bureau of Educational and Cultural Affairs. It is intended to stimulate long term and mutually beneficial peer relationships among professionals in the industry through skills and cultural competency exchanges. Fourteen participants were selected and will be placed in companies and research institutions in Massachusetts for a period of 4 weeks. Participants were chosen from specific fields, including Life Sciences; Telecommunications and Information Sciences; Precision Manufacturing; New Technologies; Renewable Energies and Technology Transfer.

Through its strong links with the Da Vinci Institute for Technology Management, TIA has also entered into a tri-lateral partnership with the Da Vinci Institute and the US-based Technology Innovation Group. This relationship creates access to major Universities in the US and strongly emphasises the development of women-owned technology-based SMMEs in South Africa. Through the Da Vinci Institute, TIA will drive a focused programme aimed at accelerating the development of technology commercialisation skills in South Africa.

## GROWING A CULTURE OF INNOVATION

The Agency has, during the 2012/13 financial year, supported a number of initiatives aimed at stimulating and growing a culture of innovation in the country.

- **Eduspace student workstation** is designed primarily to stimulate diverse activity within the classroom. Its unique, configurable layout and flexible modular system allows for multiple uses. From a user-centred research approach, the workstation can be appropriate for use in all practical subjects from the arts to science. Interaction between groups of students or individuals within the classroom is enhanced by the workstation. The workstation has been developed to address the limitations created by conventional classroom furniture and classroom layout. It provides more opportunities for different teaching styles and learning temperaments. The functional prototype been tested at SABS and is currently undergoing industrialisation.

- **Saggitarious Serpentarious System** is a device that will monitor the power consumption for the household inside the prepaid meter as well as outside at the transformer box. If there is a difference between the two measurements the system will know that the prepaid meter has been bridged/ modified. The device will detect if the prepaid meter has been opened for tampering. In the case of tampering, the system will shut down the resident's electricity connection and wirelessly send the resident's details and error codes to the municipality. This will also mean that the resident will have to report the fault to the municipality in order to get reconnected to the grid. Saggitarious Serpentarious System won the first prize at 2013 Free State enterPRIZE Job Creation Challenge, as the Most Innovative Business. Special project has filed for provisional patent for Saggitarious Serpentarious System relating specifically to the parts and function of the device.
- The **Leak-Less Valve** is an innovative toilet that will save large quantities of water in a more hygienic and convenient manner. The valve lets the water come in and out at a certain predetermined level. The valve will lock, prohibiting the further influx of water that would have been lost otherwise.

The Leak-Less Valve uses a foot flush to reduce contact with the bacteria. The valve features a dual flush cistern that uses 60% less water than the conventional toilet. Once the valve prohibits entry of water after a predetermined level, the digester shreds waste into a more fluid substance that flows much swifter in the sanitation networks, a built-in detergent reservoir that excretes adequate sanitizer when used.

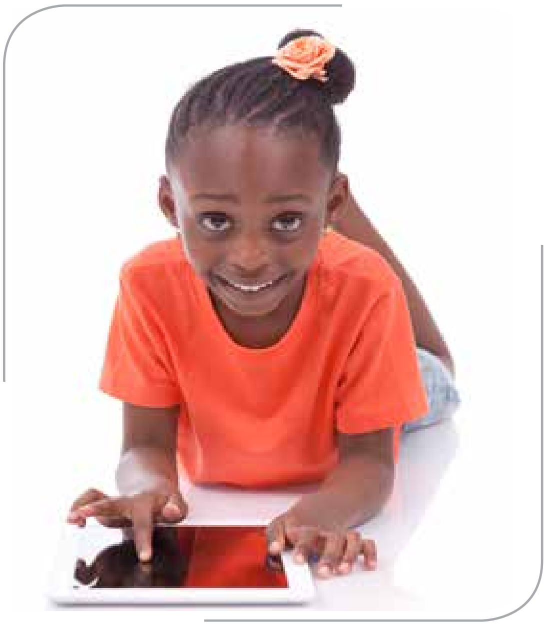
# ENHANCING EDUCATION THROUGH TECHNOLOGY

## INTRODUCING INNOVATIVE LEARNING TOOLS IN LIMPOPO AND THE EASTERN CAPE

The Technology Innovation Agency (TIA), through the Innovation Skills Development Unit (ISD) organised the Technology Innovation Awareness Week at Cofimvaba. The theme of the event was 'Improving Education through Technology'. This will be a countrywide annual event. The first rollout of this programme was launched in the Cofimvaba District of the Eastern Cape, where 2 000 learners from 32 schools were invited to experience various science demonstrations in a week-long programme. The second event in Limpopo attracted 2 000 learners from 12 schools. This event was hosted in collaboration with the Department of Education, Cofimvaba, the respective Vhembe Districts and the CSIR Meraka Institute.

The main attraction of the event was to launch **Dr Math**, an initiative of the CSIR Meraka Institute, in the Eastern Cape.

Dr Math is a mobile tutoring service which allows mathematics learners to 'chat' their way to better maths results. Learners use the MXit mobile instant messaging service on their cell phones to access tutors who provide real-time support and assistance with mathematics homework and revision.



During the rollout project, the ISD unit also introduced another project named **TIA Adopt-A-School Programme**. This project runs in conjunction with TIA Technology Stations based at institutions of higher learning.

The programme aims to nurture young innovators in the system through sustained promotion and awareness of science, technology, engineering and innovation amongst secondary school learners.

### THE SUMMER ENGINEERING INSTITUTE (SEI)

The South African SEI programme trained thirty-six (36) students from previously disadvantaged high schools in the Vaal area during the South African winter school break. The youth were given the knowledge and skills to design and construct solar panels from solar cells. These panels could then be applied for sustainable solar powered lighting and electricity in rural and township homes in South Africa.

The final product added lighting to the campus grounds where presently there was none and thus provided safety and security for the present student body. In addition to engineering skills, the SEI programme also teaches participants entrepreneurial skills as an additional offering from ISD. The programme allows for classroom instruction provided by engineers from the engineering department of Georgia Tech and University of Johannesburg (UJ).

## PROMOTING EMPLOYABILITY AND SUSTAINABLE LIVELIHOODS THROUGH SKILLS DEVELOPMENT

### INTERNSHIP PROGRAMME

The programme provided training in Business, Innovation, Technology and Entrepreneurship and exposed young trained graduates to opportunities in R&D, innovation and technology-related industries, facilities and projects.

The 2012 Internship Programme was categorised into the National Research Foundation (NRF) funded interns and EWSETA funded interns.

## NRF-FUNDED INTERNSHIP PROGRAMME

The programme started on the 1st of April 2012 and ended in March 2013. A total of 26 interns were placed through this programme within TIA sectors and industry. The candidates' demographics are depicted below.

| Level of Qualification | Female | Male | Total |
|---|---|---|---|
| N Diploma | 0 | 0 | 0 |
| B Tech/BSc/BEng | 12 | 9 | 21 |
| BSc Hons | 2 | 1 | 3 |
| MSc | 2 | 0 | 2 |
| | **16 (62%)** | **10 (38%)** | **26 (100% )** |

## EWSETA/TIA FUNDED UNEMPLOYED INTERNS: WORK EXPOSURE PLACEMENTS

The Internship term started in August 2012, with sixty interns placed in TIA sectors and industry partners for workplace experience. The table below depicts the learner demographics.

| Level of Qualification | Female | Male | Total |
|---|---|---|---|
| M + 1 | 6 | 0 | 6 |
| N Diploma | 19 | 12 | 31 |
| B Tech/BSc/BEng | 12 | 5 | 17 |
| B Sc Hons | 2 | 1 | 3 |
| MSc | 2 | 2 | 4 |
| PhD | 1 | 0 | 1 |
| | **42 (68%)** | **20 (32%)** | **62 (100%)** |

## TECHNO ENTREPRENEURSHIP SKILLS

### CHUMA COMMERCIALISATION PROGRAMME

The Chuma Commercialisation Programme's direct objective is to develop mainly black scientists and engineers with appropriate commercialisation aptitude. This happens through experiential and formal training, dedicated mentoring support to each candidate, with fast track development to commercialisation practitioners in a 2 year timeframe. The candidates serve a 3-month apprenticeship in TIA, and will serve two 6-month periods in two Venture Capital or Private Equity firms and nine months at a Technology Transfer Office. Ten candidates were recruited into the programme.

### IP EXPLOITATION PROGRAMME

The IP Exploitation Programme offered an excellent opportunity for business students postgraduates to practice their business skills. Participants had to prepare business plans for patents or invention disclosures for existing technologies at Universities or Science Councils. The Universities' Technology Transfer Offices used the business cases to apply for funding at TIA or other funding sources.

A total of 51 IP were contributed by the following institutions: Wits Enterprise, TUT, VUT, CSIR, UWC, DUT and Invotech and an equal number Business Plan proposals were prepared by students/graduates from UKZN, Wits, SU, Mancosa, GIBS, UCT, TUT and Regency.

## IDEA DEVELOPMENT PROGRAMME (IDP)

The IDP aims to nurture entrepreneurial start-ups through skills development and mentorship by existing businesses and to advance further development of early stage technology innovations to potentially commercial viable projects. During the year, five ideas were selected for further development (three in the health sector and the others in the agriculture and energy sectors).

## SWISS SOUTH AFRICAN JOINT RESEARCH PROGRAMME TECHNOLOGY ENTREPRENEUR PROGRAMME

This programme is a joint effort between Switzerland and South Africa. During the past year, the programme provided basic entrepreneurial training to 134 delegates through a local South African university and advanced entrepreneurial training by the University of Basel and the Swiss Institute of Entrepreneurship to 28 prospective entrepreneurs.

## SOLAR CAR CHALLENGE

TIA sponsored R1.65 million to five universities towards the construction of solar cars for participation in the Sasol Solar Challenge. The sponsored universities participated in the challenge that took place from 18 to 28 September over a 5 400 km journey across South Africa. The universities showcased their skill and abilities, and also the potential of young South African engineers. The challenge increased awareness and interest in renewable energy not only at these institutions but also at schools.

# SECTION 4
## BUSINESS PERFORMANCE

# BUSINESS PERFORMANCE MONITORING AND EVALUATION (BPME)

## STRATEGIC OBJECTIVE 1

### TO STIMULATE THE DEVELOPMENT AND DEMONSTRATION OF TECHNOLOGY-BASED PRODUCTS, PROCESSES AND SERVICES

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 1.1 | Number of impact investment | 1 | 1 | Performance is in line with the target. | A |
| 1.2 | Number of technology based products/ processes developed through investments | 25 | 58 | Proposals received in the Animal Health Cluster fitted the Technology Innovation Agency's mandate, however the projects were higher than expected therefore leading to over achievement of the target. | A |
| 1.3 | Number of technology based products/ processes developed or improved through technology stations | 450 | 480 | Additional funding received from the Department of Science and Technology allowed for more products to be developed. | A |
| 1.4 | Number of products/ processes developed or improved through technology platforms | 5 | 6 | An additional project (South African Sugar Research Institute) from University KwaZulu Natal was done at the National Genomics Platform. | A |
| 1.5 | Number of new green technologies supported | 1 | 2 | One of the developments, the Chromium Bioremediation Project, progressed faster than expected. | A |

## STRATEGIC OBJECTIVE 2

### TO SUPPORT THE COMMERCIALISATION OF TECHNOLOGY INNOVATIONS

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 2.1 | Number of investments commercialised | 10 | 5 | A number of investments remained at the premarket stage and failed to progress to full commercialisation. Challenges were mainly in progressing technologies to the market ready stage and beyond. | N |
| 2.2 | Number of technology based companies established | 2 | 2 | The achievement is in line with the target. | A |
| 2.3 | Percentage of co-investment attracted | 10% | 130% | The technology platforms were successful in leveraging TIA's investment to attract greater than expected funding for recapitalisation. | A |
| 2.4 | Percentage of investments attracting second round funding from external sources | 5% | 100% | The achievement is 100% due to the funding from external sources for the 5 investments that were marketed for second round funding. | A |

## STRATEGIC OBJECTIVE 3

### TO DEVELOP AN ENABLING ENVIRONMENT FOR TECHNOLOGY INNOVATION AND COMMERCIALISATION IN SOUTH AFRICA

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 3.1 | Number of new TIA regional offices | 1 | 0 | Regional office was identified in Upington and lease agreement with the lessor was not finalised by the end of the financial year. | N |
| 3.2 | Number of new industry cluster established | 1 | 1 | Performance is in line with the target. | A |
| 3.3 | Number of new technology stations or new technology platforms established | 1 | 1 | Performance is in line with the target. | A |

## STRATEGIC OBJECTIVE 4

## TO DEVELOP AN ENABLING INTERNAL ENVIRONMENT FOR TIA TO SUCCESSFULLY EXECUTE ITS STRATEGY

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 4.1 | To put in place an IT architecture that enables investments & portfolio management | Approved User Requirement Specifications | URS was completed which informed the RFP. | Performance is in line with the target. | A |
| | | Approved tool aligned with approved processes | The tender was successfully evaluated, a preferred bidder was nominated to conduct a pilot to validate the system functionality. | Performance is in line with the target. | A |
| 4.2 | Efficient investment monitoring & evaluation system | Online system database for all approved applications with clear pipeline measures approved per project on the system | A third party online system was developed and modeled using the YTIF calls for investments online application. | Performance is in line with the target. | A |
| 4.3 | Compliance with all relevant legislation | Approved IT policies pertaining to IT Security, Operations and service continuity | Various best practices and standards have been commissioned in adherence to the regulatory frameworks ITLIL,COBIT,ISO 9001,27001/2. | The approved IT polices pertaining to IT Security, operations and service continuity and the awareness campaigns were achieved. The audit opinion was yet to be issued at the time of reporting. | A |
| | | Awareness campaigns TIA-wide for adoption | | | |
| | | Unqualified audit opinion | | | |

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 4.4 | Alignment of TIA's critical positions with organisational design & relevant competencies, including retention of skills | Development of core skills through training | The training was attended by employees based on the individual development plans. The number of individual development plans attended to the number of employees is 113%. | One employee can have more than one training identified in the Individual Development Plan hence the performance is at 113%. | A |
| | | Staff turnover below the national benchmark | The turnover was 18% above the national benchmark | The Agency's structure is evolving and reviewed constantly which creates the review of some positions. The target may not be met until the agency meets a stability phase. | N |
| | | Staff turnover of core skills below 10% | The turnover was 22% above the national benchmark. | The Agency's structure is evolving and reviewed constantly which creates the review of some positions. The target may not be met until the agency meets a stability phase. | N |
| 4.5 | Development of a desired organisational culture | 5% improvement on previous year based on culture survey results | The engagement percentage increased to 15% from the previous year. | During the period under review, a lot of processes were formalised in the organisation and the increase can be attributed to the stability perceived by the employees. | A |
| | | Average performance management rating of 100% | Average performance rating 113% was achieved. | The Performance rating is a 5 points system with a rating of 3 representing 100%. A higher scoring of 4&5 is interpreted as above average and above 100%. The improved rating is due to employees taking more responsibility on the individual contribution to achieve organisational objectives. | A |
| | | Average leadership rating of 5 across all competencies on Thomas International 360 Degree assessment | Average leadership rating of 5.1 was achieved. | Thomas International 360 Degree is a 10 points leadership tool, and the score of 5.1 reflects the above average functioning of Technology Innovation Agency's management. Training Interventions targeting management development improved the rating. | A |

# STRATEGIC OBJECTIVES 5

## TO FACILITATE THE DEVELOPMENT OF INNOVATION SKILLS TO SUPPORT TECHNOLOGY INNOVATION AND COMMERCIALISATION

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 5.1 | Number of learners/ educators on webinar | 900 learners/ 100 educators | 1055 learners/ 100 educators | Through the marketing of University of Free State innovation Centre more learners were able to attend online broadcast. | A |
| 5.2 | Number of candidates through mobile technology | 50 000 | 54 052 | The system is free to the end user and therefore cannot limit access of students going on to the system. | A |
| 5.3 | Number of interns trained through TSP programme/platform | 130 | 130 | Performance is in line with target. | A |
| 5.4 | Number of FET interns trained to develop industry skills | 40 | 40 | Performance is in line with target. | A |
| 5.5 | Number of new green technologies supported | 26 | 26 | Performance is in line with target. | A |
| 5.6 | Number of unemployed graduates trained | 60 | 104 | Although 43 unemployed graduates' employment contracts were signed in March 2013, the intake was meant for the 2013/14. This had to be in line with the Energy SETA funding that had to be disbursed from March 2013. | A |
| 5.7 | Number of candidates trained through CNC machining skills programme | 200 | 207 | The Institute for Advanced Tooling selected more candidates at no additional costs to go on the programme. | A |
| 5.8 | Number of candidates trained in design & simulation | 200 | 207 | The Institute for Advanced Tooling selected more candidates at no additional costs to go on the programme. | A |
| 5.9 | Number of candidates trained in Rapid prototyping | 200 | 207 | The Institute for Advanced Tooling selected more candidates at no additional costs to go on the programme. | A |

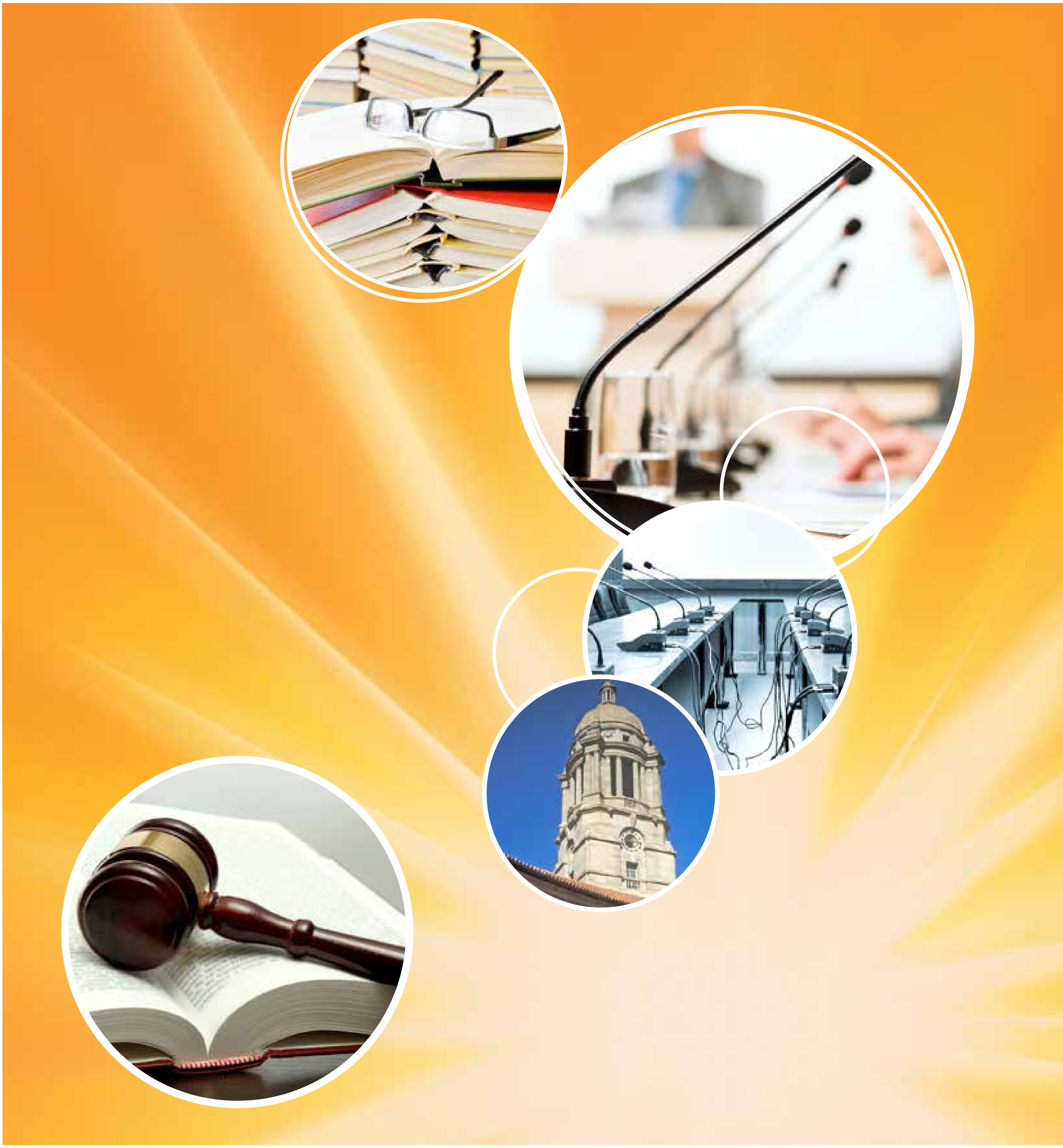
| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 5.10 | Number of schools participating in Technology Innovation Week | 25 | 88 | The Innovation Skills Development department received additional funding from the events department internally within Technology Innovation Agency and the South African Agency for Science and Technology Advancement provided support by offering free transportation of learners to the event. Therefore more schools were able to be hosted for the Technology Innovation Week. | A |
| 5.11 | Number of schools adopted by technology stations/platforms | 13 | 13 | Performance is in line with target. | A |
| 5.12 | Number of business plans resulting from exploitation of off-shelf IP | 50 | 51 | Out of all 60 business plans received, 51 were worthy of selection based on the content. | A |
| 5.13 | Number of solutions implemented from the Idea Development Programme | 5 | 5 | Performance is in line with target. | A |
| 5.14 | Number of candidates trained through Swiss Bio Entrepreneur/ Innovation Management Programme | 70 | 110 | Based on economies of scale, we were able to negotiate with the service provider to take on more candidates. | A |
| 5.15 | Number of candidates trained through Chuma Management Development Programme | 10 | 10 | Performance is in line with target. | A |

## STRATEGIC OBJECTIVES 6

### TO BECOME A SCHEDULE 3B ENTITY IN TERMS OF THE PUBLIC FINANCE MANAGEMENT ACT

| No | Performance Indicator | Annual Target | Actual performance | Comments and reasons for variance | Rating |
|---|---|---|---|---|---|
| 6.1 | Amount of funds raised by TIA as a percentage of MTEF allocation | 10% | 8.7% | Funds that were raised were in the form of co-investments. These funds were directly transferred into the investee company's accounts and not Technology Innovation Agency's, thus affecting the agency's target. | N |
| 6.2 | Number of initial Public Offerings of TIA investments | 0 this year | 0 | No target set for this financial year. | |

# SECTION 5
## CORPORATE GOVERNANCE



# INTRODUCTION

With the introduction of King III, it remains crucial for TIA as a government entity to fulfil its mandate in a manner that is in keeping with good governance, best practices, sound principles of accountability, transparency, fairness and responsibility. The current year under review had its demands and notable challenges.

It has been marked by, amongst many things, a three year institutional review instituted by the Minister of the DST in line with recommendations made by the Ministerial Committee that was charged with the responsibility of reviewing the National System of Innovation. The key objectives of the review is to reflect on the fitness of purpose of TIA operations, and the purpose and the assessment of its strengths and weaknesses based on its strategy and performance since its inception to date. The outcomes of the review are eagerly awaited.

The outcomes of the process will influence a reconsideration and redesign of the composition and functions of governance of the Board. The goals for the board are to effectively execute its governance and oversight functions internally, whilst also enhancing its visibility and impact within the external environment.

Concurrent to this process, TIA has embarked on an international benchmarking study to gain insights from other leading agencies about their investment approach and best practice process implementation. The study is intended to inform interventions aimed at moving the Agency towards becoming a world class entity that will, be better poised to attract international venture capital, foreign direct investment and international technical partners. TIA is committed to this process to improve and enhance service delivery within the innovation space.

More frequent meetings of the Board and its executive management were held to deal with the many challenges requiring governance practices that will ensure long term sustainability of the business of the Board.

## KING III REPORT AND COMPANIES ACT 2008

TIA has, as far as possible, adhered to the requirements of the Public Finance Management Act No 1 of 1999 (PFMA). The Board's processes are reviewed continuously to ensure that it adheres and complies accordingly. TIA is inculcating, in its systems, governance processes as articulated in King III and continuously observes key duties and responsibilities as provided for in the Companies Act of 2008, which came into effect in 2010. Both instruments grant TIA with an opportunity to review its governance framework and ensure alignment with statutory prescripts and governance best practice developments.

# COMPOSITION OF THE BOARD

TIA has a unitary Board structure comprised of a majority of non-executive Board Members, who have been appointed by the Minister of the Department of Science and Technology. Members have a wide range of experience and professional skills as contemplated under section 5(5) of the TIA Act No 26 of 2008 to enable them to attain the objects of the Agency. The current Board's term of office will be coming to an end on 30 April 2013.

In its strive to adhere to best governance principles and practices, TIA is cognisant of the governance risks associated with the absence of a Board and awaits the appointment and seamless transition to the new Board.

Board meetings are scheduled in advance once annually and special meetings are called to address specific issues. During the period under review, 21 meetings were convened as reflected in the table below.

## BOARD AND BOARD COMMITTEE MEETING ATTENDANCE

During the period under review, additional Board Meetings were held with a view of addressing key developments as they unfolded and strategies embarked upon by the Board.

| Members | Board meeting | Audit & Risk Committee | HR & Remuneration Committee | Investment Committee | Chairpersons Committee |
|---|---|---|---|---|---|
| Number of meetings | | | | | |
| Dr. M Ramphele* | 4 | | | | 4 |
| Dr. Ngwenya** | 4 | | 3 | | 1 |
| Mr. R Norton | 4 | 6 | | 7 | 4 |
| Mr. I Lax | 4 | | 4 | 7 | 4 |
| Ms. F Roji*** | 4 | 6 | | 2 | 4 |
| Ms. H Brown | 4 | 2 | | | |
| Ms. C Carolus | 2 | | | 3 | |
| Ms. M Pyoos | 3 | 5 | | | |
| Dr. S Cornelius | 2 | 4 | 3 | 6 | |
| Mr. S Duma**** | 4 | 7 | 3 | 7 | 4 |
| Prof. S Harrison***** | | 1 | | 1 | |
| Mr. Marc van Olst****** | | | | 7 | |
| Ms. Lynette Milne****** | | 5 | | 3 | |

*Notes:*

* *Appointed Chairperson 21 April 2009*
** *Appointed Deputy Chairperson 21 April 2009*
*** *Appointed member of Investment Committee October 2012*
**** *Ex officio member*
***** *Resigned as a member in May 2012*
****** *Co-opted member*

## DELEGATIONS OF AUTHORITY

While the Board remains accountable, it retains the ultimate authority to lead, control and manage TIA's business, inclusive of powers to delegate responsibilities. In its strive to ensure that TIA remains a viable and effective institution, its responsibilities are facilitated by a well-developed governance structure and Board sub-committees. These include the Executive management Committee (ExCo), Audit and Risk Committee, HR and Remuneration Committee and a comprehensive delegations of authority framework. The framework assists in ensuring effective decision making without diluting members' accountability and responsibilities. With the review process underway, it is anticipated that there shall be a rationaliation of committees, greater delegation, speedier decision making and increased efficiencies which would thereby enhance governance within TIA.

## BOARD EVALUATION AND PERFORMANCE

It is within TIA's practices that a performance evaluation exercise is embarked upon by individual members at least once yearly at the end of each financial year. The performance of the Board and its committees is assessed against their terms of reference and any common shortcomings and areas of strength are highlighted. The Board embarked on an independent Institute of Directors performance assessment exercise during the year under review. The results emerging from the evaluation were synthesised into key themes.

The critical areas highlighted in the report call for the Board to focus on identifying specific actions to build on its strengths, address its weaknesses and define the next steps. Management identified a need to initiate a road map for improvement to address each gap identified in the evaluation. The intention is to ensure that these initiatives are also included in the agendas of the Board for future meetings to track progress, ensure accountability and ultimately optimise the Board's role as a strategic asset to the Agency.

## BOARD MEMBER REMUNERATION

Board Members' remuneration is in accordance with National Treasury stipulations.

# AUDIT AND RISK COMMITTEE

The Audit and Risk Committee (AC) is comprised of five (5) independent non-executive members. The Committee is charged with the responsibility of monitoring internal control systems and processes to ensure TIA's interests and assets are protected. The Committee further reviews any accounting concerns raised by internal and external audit and the annual financial statements. It also ensures, amongst others, that TIA has an effective internal audit function in place and that the roles and functions of external and internal audit are sufficiently clarified and coordinated to provide an objective overview of the operational effectiveness of the entity's systems of internal control, risk management, governance and reporting.

From a risk management perspective, the committee ensures that the Board's risk management strategies and processes are aligned with best practices. Management is fully involved in the processes and reporting to AC on risk exposures, emerging risks etc.

Committee meetings were held during the period under review. They were also attended by external and internal auditors and senior executives.

# INVESTMENT COMMITTEE

The Investment Committee is intended to provide oversight and approval of investment decisions in pursuit of TIA's mandate and strategic objectives, within the specific thresholds of TIA's Investment Framework Policy and the Materiality Framework. The committee met a number of times to take decisions on a number of key investments.

# EXECUTIVE COMMITTEE (ExCo)

ExCo represented by executive management assists the CEO in guiding the overall direction of the TIA Act and in exercising control. Its mandate is to assist with the effective management of the day to day operations of the business. There were 22 meetings during the review period.

# SECTION 6
## ANNUAL FINANCIAL STATEMENTS

# INDEX

# BOARD'S RESPONSIBILITIES AND APPROVAL

The Board is required by the Public Finance Management Act (Act 1 of 1999), to maintain adequate accounting records and is responsible for the content and integrity of the consolidated and separate financial statements and related financial information included in this report. It is the responsibility of the Board to ensure that the consolidated and separate financial statements fairly represent the state of affairs of the entity and its controlled entities ("the economic entity") as at the end of the financial year and the results of its operations and cash flows for the period then ended. The external auditors are engaged to express an independent opinion on the consolidated and separate financial statements and were given unrestricted access to all financial records and related data.

The consolidated and separate financial statements have been prepared in accordance with Standards of Generally Recognised Accounting Practice (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

The consolidated and separate financial statements are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

The Board acknowledges that it is ultimately responsible for the system of internal financial control established by the controlling entity and places considerable importance on maintaining a strong control environment. To enable the Board to meet these responsibilities, the Board sets standards for internal control aimed at reducing the risk of error in a cost-effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the controlling entity and all employees are required to maintain the highest ethical standards in ensuring that the controlling entity's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the economic entity is on identifying, assessing, managing and monitoring all known forms of risk across the economic entity. While operating risk cannot be fully eliminated, the economic entity endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The Board is of the opinion, based on the information and explanations given by management, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or deficit.

The Board has reviewed the economic entity's cash flow forecast for the year to 31 March 2014 and, in the light of this review and the current financial position, they are satisfied that the economic entity has access to adequate resources to continue in operational existence for the foreseeable future.

The financial statements set out on pages 60 to112, which have been prepared on the going concern basis, were approved by the Board on 31 July 2013 and were signed on its behalf by:

**Ms. K Njobe**
Chairperson of the Board

# REPORT OF THE AUDIT COMMITTEE

The functions of Internal Audit and Enterprise Risk Management within the Technology Innovation Agency (the Agency) reports in to the Office of the CEO. This is aimed at providing integrated assurance through effective Enterprise Risk Management and value–adding Internal Audit services.

The task of the Internal Audit is to determine whether the network of risk management, internal control, and governance processes as designed and applied by management, is adequate and functions as intended. The Enterprise Risk function should ensure an efficient and effective risk management and implementing by coordinating, administrating and maintaining the risk management system, processes and policies required for all functions.

The Agency's risk register was developed with the relevant internal stakeholders. The register was then reviewed and approved by the Audit and Risk Committee.

The strategic risks identified for the financial year 2012/13 are listed below, in order of the level of risk (highest to lowest):

- Insufficient attraction of relevant investments
- Non-compliance with applicable statutory requirements
- Inability to implement the TIA strategy
- Reputational risk
- Inability to attract external funding
- Inability to stimulate culture of innovation
- Loss of business continuity in cases of disaster/ disruptions

There were a few differences on the risk profiles produced by management and external audit due to the level at which the risks were identified by each party. However there were also overlaps on the risks identified by both parties. Going forward management will incorporate external audit risks into the Agency's operational risk registers to ensure that no risks are left unattended.

Risks are monitored monthly or quarterly to track progress on the committed mitigation action plans and identification of any other emerging risks. These are then agreed at EXCO and presented to the Audit and Risk committee on a quarterly basis.

A co-sourced model for internal audit services was implemented to address challenges of capacity and improving internal skills through transfer of skill by the appointed service provider. A risk-based internal audit plan was developed and approved by the Audit and Risk committee.

The alignment of the plan with that of our assurance partners is envisaged to ensure the improvement of the internal control system and therefore reduce repeat findings. The Agency attempts.

The approved annual plan could not be fully implemented due to operational challenges, particularly the delays in the approval of the appointment of the service provider. These challenges resulted in only 30% of the plan being covered. The assignments that were not undertaken during the year under review will be incorporated in the 2013/14 Internal Audit Plan.

Quarterly reporting to the Agency's stakeholders and assurance partners ensures continuous tracking on the progress of action plans implemented and the improvement of the system of internal controls.

The Agency takes a strong stance against acts of fraud and corruption and has therefore subscribed to the National Anti- Fraud and Corruption Hotline (NACH). There is constant monitoring of any new cases reported with the Public Service Commission (PSC) and fulfilment of any requirements. No new cases were reported in the year concerned

The Occupational Health and Safety (OHS) policy was approved, legal appointments were finalised and relevant committees were established. OHS awareness sessions within the organisation ensure that everyone in TIA or working with TIA, is fully aware of their responsibilities and rights regarding a safe working environment. The current status of the key elements of OHS management system as outlined in Occupational Health and Safety management systems are to roll-out systems and supporting techniques to all TIA regional offices focusing on the following elements:

- Communicated approved OHS Policies and implemented commitment (Safety and Health Environment and Smoking policy),
- Planned emergency preparedness and contingency,
- Conducted OHS risk assessment and implementation of the recommendations

**Dr. S. Lennon**
Chairperson of the Audit and Risk Committee

# REPORT OF THE ACCOUNTING AUTHORITY FOR THE YEAR ENDED 31 MARCH 2013

## REPORT OF THE ACCOUNTING AUTHORITY FOR THE YEAR ENDED 31 MARCH 2013

### INTRODUCTION

On behalf of the Technology Innovation Agency ("TIA" or "Agency") Board, we hereby submit to Parliament, through the Minister of Science and Technology, this report and the audited Annual Financial Statements for TIA for the period ended 31 March 2013. In the opinion of the TIA Board, the financial statements reflect the financial position of the Agency as at 31 March 2013 and the results of its operations for the period then ended.

### PRINCIPAL ACTIVITIES OF THE TECHNOLOGY INNOVATION AGENCY

The object of the Agency is to support the State in stimulating and intensifying technological innovation in order to improve economic growth and quality of life of all South Africans by supporting the development and exploitation of technological innovations.

### FINANCIAL RESULTS

The financial results of the Technology Innovation Agency are set out on pages 60 to 112 of the Annual Report.

In the financial year 2012/13, TIA had an unqualified audit opinion. The executive was tasked with engaging more with the National Treasury, the Accounting Standards Board and the Auditor General to discuss the alignment of the mandate of TIA and the listing as a Schedule 3A of the PFMA. Being listed as a Schedule 3A puts undue pressure on the Agency's ability to pursue its mandate. In particular, TIA has to invest in technology innovative companies and monitor their activities very closely to limit the inherent risks that are prevalent in this space. Whilst the Agency has put a lot of effort in complying with the legislative framework, it remains expensive and unsustainable. The Agency is pleased to have an unqualified audit opinion despite these onerous requirements. It remains a top priority for the Agency to achieve an operating and accounting regime that is supportive of its mandate.

### EVENTS SUBSEQUENT TO THE END OF THE YEAR

The Board is not aware of any event which might impact on the organisation after year end.

### CONTACT PERSONS

Adv. T. Polaki, Board Secretariat
The registered address of Technology Innovation Agency is:
83 Lois Avenue
Menlyn
Pretoria
0181

# INDEPENDENT AUDITOR'S REPORT

## TO THE MEMBERS OF PARLIAMENT ON THE TECHNOLOGY INNOVATION AGENCY

### REPORT ON THE FINANCIAL STATEMENTS

We have audited the consolidated and separate financial statements of the Technology Innovation Agency as set out on pages 60 to 112, which comprise the statements of financial position as at 31 March 2013, the statements of financial performance, statements of changes in net assets, cash flow statements and the statement of comparison of budget and actual amounts for the year then ended, and the notes, comprising a summary of significant accounting policies and other explanatory information.

### ACCOUNTING AUTHORITY'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

The board of directors, which constitutes the accounting authority, is responsible for the preparation and fair presentation of these financial statements in accordance with South African Standards of Generally Recognised Accounting Practice ("SA Standards of GRAP") and the requirements of the Public Finance Management Act of South Africa ("PFMA"), and for such internal control as the accounting authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Public Audit Act of South Africa, the General Notice issued in terms thereof and International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### OPINION

In our opinion, these financial statements present fairly, in all material respects, the consolidated and separate financial position of the Technology Innovation Agency as at 31 March 2013, and its consolidated and separate financial performance and consolidated and separate cash flows for the year then ended in accordance with SA Standards of GRAP and the requirements of the Public Finance Management Act of South Africa.

## REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

## PUBLIC AUDIT ACT REQUIREMENTS (PAA)

In accordance with the Public Audit Act of South Africa, and the General Notice issued in terms thereof, we report the following findings relevant to performance against predetermined objectives, compliance with laws and regulations and internal control, but not for the purpose of expressing an opinion.

## PREDETERMINED OBJECTIVES

We performed procedures to obtain evidence about the usefulness and reliability of the information in the Performance Information Report as set out on pages 39-46, of the annual report, and reported thereon to the Accounting Authority.

The reported performance against predetermined objectives was evaluated against the overall criteria of usefulness and reliability. The usefulness of information in the annual performance report relates to whether it is presented in accordance with the National Treasury's annual reporting principles and whether the reported performance is consistent with the planned objectives. The usefulness of information further relates to whether indicators and targets are measurable (i.e. well defined, verifiable, specific, measurable and time bound) and relevant as required by the National Treasury Framework for managing programme performance information.

The reliability of the information in respect of the selected objectives is assessed to determine whether it adequately reflects the facts (i.e. whether it is valid, accurate and complete).

The material findings from our report to the Accounting Authority are as follows:

## USEFULNESS OF INFORMATION

The National Treasury Framework for Managing Programme Performance Information (FMPPI) requires that indicators should have clear unambiguous data definitions so that data is collected consistently and is easy to understand and use. A total of 42% of the indicators relevant to

- stimulating the development and demonstration of technology-based products, processes and services;
- supporting the commercialisation of technology innovations; and
- facilitating the development of innovation skills to support technology innovation and commercialisation

were not well defined in that clear, unambiguous data definitions were not available to allow for data to be collected consistently.

Additional matter

In addition to the above material finding, we draw attention to the following matter in our report to the accounting authority.

## MATERIAL ADJUSTMENTS TO THE PERFORMANCE INFORMATION REPORT

Material audit adjustments in the annual performance report were identified during the audit, of which 40% of the indicators related to supporting the commercialisation of technology innovations and 27% of the indicators related to facilitating the development of innovation skills to support technology innovation and commercialisation were corrected by management.

## COMPLIANCE WITH LAWS AND REGULATIONS

We performed procedures to obtain audit evidence that the entity has complied with applicable laws and regulations regarding financial matters, financial management and other related matters. We did not identify any instances of material non-compliance with specific matters in key applicable laws and regulations as set out in the General Notice issued in terms of the PAA.

## INTERNAL CONTROL

We considered internal control relevant to our audit of the financial statements, performance information report and compliance with laws and regulations. The matters reported below are limited to the significant deficiencies relating to leadership, financial and performance management and governance that resulted in the findings on the performance information report included in this report.

Proper oversight was not exercised during the year on compliance with laws and regulations specifically reporting on performance information. This is evidence through the findings in this report.

# OTHER REPORTS

## INVESTIGATIONS

The accounting authority initiated an investigation into allegations of nepotism related to appointments and procurement of goods and services, intimidation, gross violation of the investment decision process, failure of the Corporate Governance structure and mismanagement of funds and assets. The investigation is still ongoing at the date of this report and the potential impact on the financial statement can not be determined.

KPMG Inc.
Registered Auditor

**Per MMA Masemola**
Chartered Accountant (SA)
Registered Auditor
Director
31 July 2013

1226 Francis Baard Street, Hatfield, 0083

# STATEMENTS OF FINANCIAL POSITION AS AT 31 MARCH 2013

| | | Economic entity | | Controlling entity | |
|---|---|---|---|---|---|
| | | 2013 | 2012 | 2013 | 2012 |
| | Note(s) | R '000 | R '000 | R '000 | R '000 |
| ASSETS | | | | | |
| CURRENT ASSETS | | | | | |
| Trade and other receivables | 3 | 7,328 | 7,055 | 4,370 | 3,696 |
| Cash and cash equivalents | 4 | 242,243 | 301,503 | 228,712 | 287,789 |
| | | **249,571** | **308,558** | **233,082** | **291,485** |
| NON-CURRENT ASSETS | | | | | |
| Property, plant and equipment | 5 | 31,443 | 35,237 | 22,548 | 23,859 |
| Intangible assets | 6 | 1,200 | 304 | 1,198 | 297 |
| Investments in controlled entities | 7 | - | - | - | - |
| Investments in associates | 8 | 22,824 | 16,928 | 14,098 | 15,448 |
| Loans and receivables | 9 | 13,735 | 12,494 | 15,235 | 13,170 |
| Other financial assets | 10 | 43,846 | 43,642 | 43,846 | 43,642 |
| | | **113,048** | **108,605** | **96,925** | **96,416** |
| TOTAL ASSETS | | **362,619** | **417,163** | **330,007** | **387,901** |
| LIABILITIES | | | | | |
| CURRENT LIABILITIES | | | | | |
| Taxation payable | | - | 1,312 | - | - |
| Finance lease obligation | 11 | 114 | 246 | 114 | 246 |
| Operating lease liability | | 1,972 | 867 | 1,972 | 867 |
| Trade and other payables | 12 | 34,562 | 22,230 | 30,634 | 18,547 |
| Income received in advance | | - | 180 | - | 180 |
| | | **36,648** | **24,835** | **32,720** | **19,840** |
| NON-CURRENT LIABILITIES | | | | | |
| Loans from shareholders | 13 | 2,249 | 2,295 | - | - |
| Committed conditional grants and receipts | 14 | 27,274 | 44,364 | 27,274 | 44,310 |
| | | **29,523** | **46,659** | **27,274** | **44,310** |
| TOTAL LIABILITIES | | **66,171** | **71,494** | **59,994** | **64,150** |
| NET ASSETS | | **296,448** | **345,669** | **270,013** | **323,751** |
| NET ASSETS | | | | | |
| NET ASSETS ATTRIBUTABLE TO OWNERS OF CONTROLLING ENTITY | | | | | |
| RESERVES | | | | | |
| Foreign currency translation reserve | | (103) | - | - | - |
| Accumulated surplus | | 302,643 | 352,107 | 270,013 | 323,751 |
| | | 302,540 | 352,107 | 270,013 | 323,751 |
| Non-controlling interest | | (6,092) | (6,438) | - | - |
| TOTAL NET ASSETS | | **296,448** | **345,669** | **270,013** | **323,751** |

# STATEMENTS OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31 MARCH 2013

| | | Economic entity | | Controlling entity | |
|---|---|---|---|---|---|
| | | 2013 | 2012 | 2013 | 2012 |
| | Note(s) | R '000 | R '000 | R '000 | R '000 |
| **REVENUE** | | | | | |
| Revenue from non-exchange transactions | 15 | 480,552 | 486,934 | 480,412 | 486,934 |
| Deficit on acquisition of investment in controlled entity | | - | (7,710) | - | - |
| Other income | 16 | 13,779 | 6,129 | 7,970 | 3,177 |
| Interest received | 17 | 32,688 | 13,147 | 32,689 | 13,256 |
| Dividends received | 17 | - | - | 1,035 | 432 |
| **TOTAL REVENUE** | | **527,019** | **498,500** | **522,106** | **503,799** |
| **EXPENDITURE** | | | | | |
| Employee related costs | | (123,828) | (114,425) | (110,865) | (101,107) |
| Project funding expenditure | 18 | (286,854) | (170,362) | (300,850) | (179,892) |
| Depreciation and amortisation | | (13,005) | (12,582) | (10,700) | (8,801) |
| Finance costs | | (309) | (112) | (114) | (50) |
| Impairment of investments | 19 | (12,565) | (36,328) | (19,657) | (61,469) |
| Project funding expenditure - Ring fenced | | (24,062) | (43,158) | (24,062) | (43,158) |
| Repairs and maintenance | | (1,447) | (523) | (1,407) | (490) |
| Other operating expenses | 20 | (76,655) | (55,200) | (70,915) | (48,465) |
| Investment sourcing and management | | (3,498) | (8,328) | (3,498) | (8,328) |
| IT expenses | | (11,545) | (10,739) | (11,165) | (10,288) |
| Marketing expenses | | (10,637) | (6,346) | (10,576) | (6,346) |
| Innovation skills development | | (12,035) | (9,950) | (12,035) | (9,946) |
| **TOTAL EXPENDITURE** | | **(576,440)** | **(468,053)** | **(575,844)** | **(478,340)** |
| **OPERATING (DEFICIT)/SURPLUS** | | **(49,421)** | **30,447** | **(53,738)** | **25,459** |
| Surplus from equity accounted investments | | 418 | 350 | - | - |
| Reversal of tax provision | | - | 35,411 | - | 35,411 |
| | | **418** | **35,761** | **-** | **35,411** |
| **(DEFICIT)/SURPLUS BEFORE TAXATION** | | **(49,003)** | **66,208** | **(53,738)** | **60,870** |
| Taxation | 21 | 115 | 1 | - | - |
| **(DEFICIT)/SURPLUS FOR THE YEAR** | | **(49,118)** | **66,207** | **(53,738)** | **60,870** |
| **ATTRIBUTABLE TO:** | | | | | |
| Owners of the controlling entity | | (49,464) | 67,560 | (53,738) | 60,870 |
| Non-controlling interest | | 346 | (1,353) | - | - |
| | | **(49,118)** | **66,207** | **(53,738)** | **60,870** |

# STATEMENTS OF CHANGES IN NET ASSETS FOR THE YEAR ENDED 31 MARCH 2013

| | Foreign currency translation reserve | Accumulated surplus | Total attributable to owners of the economic entity / controlling entity | Non-controlling interest | Total net assets |
|---|---|---|---|---|---|
| | R '000 | R '000 | R '000 | R '000 | R '000 |
| ECONOMIC ENTITY | | | | | |
| Opening balance as previously reported | - | 260,642 | 260,642 | (4,949) | 255,693 |
| Adjustments | | | | | |
| Correction of errors | - | 15,097 | 15,097 | - | 15,097 |
| **BALANCE AT 01 APRIL 2011 AS RESTATED** | **-** | **275,739** | **275,739** | **(4,949)** | **270,790** |
| Changes in net assets | | | | | |
| Surplus/(deficit) for the year | - | 67,560 | 67,560 | (1,353) | 66,207 |
| Entity combinations | - | 8,808 | 8,808 | (136) | 8,672 |
| Total changes | - | 76,368 | 76,368 | (1,489) | 74,879 |
| **BALANCE AT 01 APRIL 2012** | **-** | **352,107** | **352,107** | **(6,438)** | **345,669** |
| Changes in net assets | | | | | |
| Foreign currency differences | (103) | - | (103) | - | (103) |
| Net income/(losses) recognised directly in net assets | (103) | - | (103) | - | (103) |
| Surplus/(deficit) for the year | - | (49,464) | (49,464) | 346 | (49,118) |
| Total recognised income and expenses for the year | (103) | (49,464) | (49,567) | 346 | (49,221) |
| Total changes | (103) | (49,464) | (49,567) | 346 | (49,221) |
| **BALANCE AT 31 MARCH 2013** | **(103)** | **302,643** | **302,540** | **(6,092)** | **296,448** |
| CONTROLLING ENTITY | | | | | |
| Opening balance as previously reported | - | 247,784 | 247,784 | - | 247,784 |
| Adjustments | | | | | |
| Correction of errors | - | 15,097 | 15,097 | - | 15,097 |
| **BALANCE AT 01 APRIL 2011 AS RESTATED** | **-** | **262,881** | **262,881** | **-** | **262,881** |
| Changes in net assets | | | | | |
| Surplus for the year | - | 60,870 | 60,870 | - | 60,870 |
| Total changes | - | 60,870 | 60,870 | - | 60,870 |
| **BALANCE AT 01 APRIL 2012** | **-** | **323,751** | **323,751** | **-** | **323,751** |
| Changes in net assets | | | | | |
| Deficit for the year | - | (53,738) | (53,738) | - | (53,738) |
| Total changes | - | (53,738) | (53,738) | - | (53,738) |
| **BALANCE AT 31 MARCH 2013** | **-** | **270,013** | **270,013** | **-** | **270,013** |

# CASH FLOW STATEMENTS FOR THE YEAR ENDED 31 MARCH 2013

| | | Economic entity | | Controlling entity | |
|---|---|---|---|---|---|
| | | 2013 | 2012 | 2013 | 2012 |
| | Note(s) | R '000 | R '000 | R '000 | R '000 |
| **CASH FLOWS FROM OPERATING ACTIVITIES** | | | | | |
| **RECEIPTS** | | | | | |
| Grants | | 480,552 | 486,934 | 480,412 | 486,934 |
| Interest income | | 25,690 | 6,743 | 26,025 | 6,135 |
| Dividends received | | - | - | 1,035 | 432 |
| Other receipts | | 14,474 | 9,273 | 7,234 | 4,476 |
| | | 520,716 | 502,950 | 514,706 | 497,977 |
| **PAYMENTS** | | | | | |
| Employee costs | | (123,828) | (114,425) | (110,865) | (101,107) |
| Project funding expenses | | (310,916) | (213,520) | (324,912) | (223,050) |
| Other payments | | (103,789) | (88,437) | (96,666) | (80,569) |
| | | (538,533) | (416,382) | (532,443) | (404,726) |
| **NET CASH FLOWS (USED IN)/ FROM OPERATING ACTIVITIES** | 22 | **(17,817)** | **86,568** | **(17,737)** | **93,251** |
| **CASH FLOWS FROM INVESTING ACTIVITIES** | | | | | |
| Purchase of intangible assets and property, plant and equipment | 5 | (10,631) | (7,835) | (10,454) | (7,736) |
| Proceeds from sale of property, plant and equipment | 5 | - | 172 | - | - |
| Purchase of investments in associates | 8 | (2,600) | - | (2,600) | - |
| Cash acquired from acquisition of controlled entity | | - | 48 | - | - |
| Purchase of other financial assets | 10 | (3,274) | - | (3,274) | - |
| Repayment of loans received | | 77 | - | 741 | - |
| Loans granted | | (7,903) | (17,502) | (8,741) | (14,688) |
| Proceeds on sale of investment | | 24 | - | 24 | - |
| Repayment of loans from economic entities | | - | 1,106 | - | - |
| (Increase)/decrease in loans from shareholders | | (46) | 42 | - | - |
| **NET CASH FLOWS USED IN INVESTING ACTIVITIES** | | **(24,353)** | **(23,969)** | **(24,304)** | **(22,424)** |
| **CASH FLOWS FROM FINANCING ACTIVITIES** | | | | | |
| Ring fenced funding received | | 7,000 | 32,886 | 7,000 | 32,886 |
| Conditional grants paid | | (24,090) | (17,796) | (24,036) | (17,746) |
| **NET CASH FLOWS FROM FINANCING ACTIVITIES** | | **(17,090)** | **15,090** | **(17,036)** | **15,140** |
| **NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS** | | **(59,260)** | **77,689** | **(59,077)** | **85,967** |
| Cash and cash equivalents at the beginning of the year | | 301,503 | 223,814 | 287,789 | 201,822 |
| **CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR** | 4 | **242,243** | **301,503** | **228,712** | **287,789** |

# STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS FOR THE YEAR ENDED 31 MARCH 2013

| | Approved budget per MTEF<br>R '000 | Adjustments<br>R '000 | Final Budget<br>R '000 | Actual amounts on comparable basis<br>R '000 | Difference between final budget and actual<br>R '000 | Notes |
|---|---|---|---|---|---|---|
| CONTROLLING ENTITY | | | | | | |
| STATEMENT OF FINANCIAL PERFORMANCE | | | | | | |
| REVENUE | | | | | | |
| Revenue from non-exchange transactions | 455,196 | 1,129 | **456,325** | 480,412 | **24,087** | 32.1 |
| Other income | - | - | **-** | 7,970 | **7,970** | 32.2 |
| Interest received | - | - | **-** | 32,689 | **32,689** | 32.2 |
| Dividends received | - | - | **-** | 1,035 | **1,035** | 32.2 |
| TOTAL REVENUE | **455,196** | **1,129** | **456,325** | **522,106** | **65,781** | |
| EXPENDITURE | | | | | | |
| Employee related costs | (86,487) | (1,129) | **(87,616)** | (110,865) | **(23,249)** | 32.3 |
| Project funding expenditure | (295,118) | - | **(295,118)** | (300,850) | **(5,732)** | 32.6 |
| Depreciation and amortisation | (4,552) | - | **(4,552)** | (10,700) | **(6,148)** | 32.4 |
| Finance costs | - | - | **-** | (114) | **(114)** | |
| Impairment of investments | - | - | **-** | (19,657) | **(19,657)** | 32.5 |
| Project funding expenditure - Ring fenced | - | - | **-** | (24,062) | **(24,062)** | 32.1 |
| Repairs and maintenance | - | - | **-** | (1,407) | **(1,407)** | |
| Other operating expenses | (53,279) | - | **(53,279)** | (70,915) | **(17,636)** | 32.6 |
| Investment sourcing and management | - | - | **-** | (3,498) | **(3,498)** | 32.6 |
| IT expenses | - | - | **-** | (11,165) | **(11,165)** | 32.6 |
| Marketing expenses | (6,656) | - | **(6,656)** | (10,576) | **(3,920)** | 32.6 |
| Innovation skills development | (9,104) | - | **(9,104)** | (12,035) | **(2,931)** | 32.6 |
| TOTAL EXPENDITURE | **(455,196)** | **(1,129)** | **(456,325)** | **(575,844)** | **(119,519)** | |
| Deficit before taxation | **-** | **-** | **-** | **(53,738)** | **(53,738)** | |
| Actual amount on comparable basis as presented in the budget and actual comparative statement | **-** | **-** | **-** | **(53,738)** | **(53,738)** | |

# ACCOUNTING POLICIES

## 1. PRESENTATION OF FINANCIAL STATEMENTS

The consolidated and separate financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

These financial statements have been prepared on an accrual basis of accounting and are in accordance with historical cost convention unless specified otherwise. They are presented in South African Rand, which is the functional currency of the controlling entity. Amounts are rounded to the nearest thousand.

These accounting policies are consistent with the previous period.

### 1.1 CONSOLIDATION

#### BASIS OF CONSOLIDATION

The consolidated financial statements are the financial statements of the economic entity presented as those of a single entity.

The consolidated financial statements incorporate the financial statements of the controlling entity and all controlled entities, including special purpose entities, which are controlled by the controlling entity.

Control exists when the controlling entity has the power to govern the financial and operating policies of another entity so as to obtain benefits from its activities.

The results of controlled entities, are included in the consolidated financial statements from the effective date of acquisition or date when control commences to the effective date of disposal or date when control ceases. The difference between the proceeds from the disposal of the controlled entity and its carrying amount as of the date of disposal, including the cumulative amount of any exchange differences that relate to the controlled entity recognised in net assets in accordance with the Standard of GRAP on The Effects of Changes in Foreign Exchange Rates, is recognised in the consolidated statement of financial performance as the surplus or deficit on the disposal of the controlled entity.

An investment in an entity is accounted for in accordance with the Standards of GRAP on Financial Instruments from the date that it ceases to be a controlled entity, unless it becomes an associate or a jointly controlled entity, in which case it is accounted for as such. The carrying amount of the investment at the date that the entity ceases to be a controlled entity is regarded as the fair value on initial recognition of a financial asset in accordance with the Standards of GRAP on Financial Instruments.

When the reporting dates of the controlling entity and a controlled entity are different, the controlled entity prepares, for consolidation purposes, additional financial statements as of the same date as the controlling entity unless it is impracticable to do so. When the financial statements of a controlled entity used in the preparation of consolidated financial statements are prepared as of a reporting date different from that of the controlling entity, adjustments are made for the effects of significant transactions or events that occur between that date and the date of the controlling entity's financial statements. In any case, the difference between the reporting date of the controlled entity and that of the controlling entity shall be no more than three months.

Adjustments are made, when necessary, to the financial statements of the controlled entities to bring their accounting policies in line with those of the controlling entity.

All intra-entity transactions, balances, revenues and expenses are eliminated in full-on consolidation.

Non-controlling interests in the net assets of the economic entity are identified and recognised separately from the controlling entity's interest therein, and are recognised within net assets. Losses applicable to the non-controlling parties in a consolidated controlled entity may exceed the non-controlling interest in the controlled entity's net assets. The excess, and any further losses applicable to the non-controlling parties, are allocated against the controlling interest except to the extent that the non-controlling entity has a binding obligation to, and is able to, make an additional investment to cover the losses. If the controlled entity subsequently reports surpluses, such surpluses are allocated to the controlling interest until the non-controlling entity's share of losses previously absorbed by the majority has been recovered.

Non-controlling interests in the surplus or deficit of the economic entity is separately disclosed.

## INVESTMENT IN ASSOCIATES

An associate is an entity over which the controlling entity has significant influence and which is neither a controlled entity nor a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

An investment in associate is accounted for using the equity method, except when the investment is classified as held-for-sale in accordance with Standard of GRAP on Non-current Assets Held-For-Sale and Discontinued Operations. Under the equity method, investments in associates are carried in the consolidated statement of financial position at cost adjusted for post acquisition changes in the economic entity's share of net assets of the associate, less any impairment losses.

Distributions received from an investee reduce the carrying amount of the investment.

The most recent available financial statements of the associate are used by the economic entity in applying the equity method. When the reporting date's of the economic entity and the associate are different, the associate prepares, for the use of the economic entity, financial statements as of the same date as the financial statements of the economic entity unless it is impracticable to do so.

When the financial statements of an associate used in applying the equity method are prepared as of a different reporting date from that of the economic entity, adjustments are made for the effects of significant transactions or events that occur between that date and the date of the economic entity's financial statements. In any case, the difference between the reporting date of the associate and that of the economic entity shall not be more than three months.

The economic entity's financial statements are prepared using uniform accounting policies for like transactions and events in similar circumstances.

Deficits in an associate in excess of the economic entity's interest in that associate are recognised only to the extent that the economic entity has incurred a legal or constructive obligation to make payments on behalf of the associate. If the associate subsequently reports surpluses, the economic entity resumes recognising its share of those surpluses only after its share of the surpluses equals the share of deficits not recognised.

Any goodwill on acquisition of an associate is included in the carrying amount of the investment, however, a gain on acquisition is recognised immediately in surplus or deficit.

Surpluses and deficits on transactions between the economic entity and an associate are eliminated to the extent of the economic entity's interest therein.

The controlling entity discontinues the use of the equity method from the date that it ceases to have significant influence over an associate and account for the investment in accordance with the Standards of GRAP on Financial Instruments from that date, unless the associate becomes a controlled entity or a joint venture, in which case it is accounted for as such. The carrying amount of the investment at the date that it ceases to be an associate is regarded as the fair value on initial recognition as a financial asset in accordance with the Standards of GRAP on Financial Instruments.

## 1.2 INVESTMENTS IN CONTROLLED ENTITIES

### CONTROLLING ENTITY FINANCIAL STATEMENTS

In the entity's separate financial statements, investments in controlled entities are carried at cost less any accumulated impairment.

The cost of an investment in controlled entity is the aggregate of:

- the fair value, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the entity; plus
- any costs directly attributable to the purchase of the controlled entity.

## 1.3 INVESTMENTS IN ASSOCIATES

### CONTROLLING ENTITY FINANCIAL STATEMENTS

An investment in an associate is carried at cost less any accumulated impairment.

## 1.4 SIGNIFICANT JUDGEMENTS AND SOURCES OF ESTIMATION UNCERTAINTY

In preparing the financial statements in conformity with GRAP, management is required to make judgements, estimates and assumptions that affect the amounts represented in the financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the financial statements. These estimates and underlying assumptions are reviewed by management on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision effects both current and future periods. Significant judgements include:

### LOANS AND RECEIVABLES

The economic and controlling entity assesses its loans and receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in surplus or deficit, the economic entity makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

The impairment for loans and receivables is calculated on an individual basis, based on historical losses, financial position of the entity, repayment terms and the commercial viability of the business.

## 1.4 SIGNIFICANT JUDGEMENTS AND SOURCES OF ESTIMATION UNCERTAINTY (CONTINUED)

### IMPAIRMENT TESTING (NON-FINANCIAL ASSETS)

The recoverable amounts of individual assets have been determined based on the higher of value-in-use calculations and fair values less costs to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that the assumptions used may change which may then impact our estimations and may then require a material adjustment to the carrying value of tangible assets.

The economic and controlling entity review and test the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each asset. Expected future cash flows used to determine the value in use of other assets are inherently uncertain and could materially change over time.

## 1.5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are tangible non-current assets that are held for use in the supply of services or for administrative purposes, and are expected to be used during more than one period.

The cost of an item of property, plant and equipment is recognised as an asset when:

- it is probable that future economic benefits or service potential associated with the item will flow to the entity; and
- the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired through a non-exchange transaction, its cost is its fair value as at date of acquisition.

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, its deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses.

Property, plant and equipment is depreciated on the straight line basis over its expected useful life to its estimated residual value.

The useful lives of items of property, plant and equipment have been assessed as follows for current and comparative periods:

| Item | Average useful life (in years) |
|---|---|
| Buildings | 20 to 25 |
| Furniture and office equipment | 2 to 6 |
| Motor vehicles | 4 to 5 |
| Leasehold improvements | Shorter of the period of the lease agreement or the useful life |
| Other property, plant and equipment | 5 to 10 |
| Laboratory equipment | 5 |

The residual value, the useful life and depreciation method of each asset is reviewed at the end of each reporting date. If the expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.

The depreciation charge for each period is recognised in surplus or deficit.

Items of property, plant and equipment are de-recognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset.

The gain or loss arising from the de-recognition of an item of property, plant and equipment is included in surplus or deficit when the item is de-recognised. This gain or loss is determined as the difference between the net disposal proceeds (if any) and the carrying amount of the item.

### 1.6 INTANGIBLE ASSETS

An intangible asset is an identifiable non-monetary asset without physical substance.

An asset is identified as an intangible asset when it:

- is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, assets or liabilities; or
- arises from contractual rights or other legal rights, regardless whether those rights are transferable or separate from the economic entity or from other rights and obligations.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the economic entity; and
- the cost or fair value of the asset can be measured reliably.

Intangible assets are initially recognised at cost.

Where an intangible asset is acquired through a non-exchange transaction, its cost shall be its fair value as at the date of acquisition.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred.

Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date. Changes will be accounted for as a change in estimate.

Amortisation is provided to write down the intangible assets, on a straight line basis, to their residual values as follows:

| Item | Useful life |
|---|---|
| Computer software | 2 years |

Intangible assets are de-recognised:

- on disposal; or
- when no future economic benefits or service potential are expected from its use or disposal.

The gain or loss is the difference between the net disposal proceeds, if any, and the carrying amount. It is recognised in surplus or deficit when the asset is de-recognised.

## 1.7 FINANCIAL INSTRUMENTS

### CLASSIFICATION

The entity has the following types of financial assets (classes and category) as reflected on the face of the statements of financial position or in the notes thereto:

| Class | Category |
|---|---|
| Investments in controlled entities | Financial assets at cost |
| Investments in associates | Financial assets at cost |
| Other financial assets | Financial assets at cost |
| Cash and cash equivalents | Financial assets at amortised cost |
| Loans and receivables | Financial assets at amortised cost |

The entity has the following types of financial liabilities (classes and category) as reflected on the face of the statements of financial position or in the notes thereto:

| Class | Category |
|---|---|
| Trade and other payables | Financial liabilities measured at amortised cost |
| Finance lease obligation | Financial liabilities measured at amortised cost |
| Loans from shareholders | Financial liabilities measured at amortised cost |

### INITIAL RECOGNITION

The entity recognises a financial asset or a financial liability in its statement of financial position when the entity becomes a party to the contractual provisions of the instrument.

The entity recognises financial assets using trade date accounting.

## INITIAL MEASUREMENT OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES

The entity measures a financial asset and financial liability initially at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

The entity first assesses whether the substance of a concessionary loan is in fact a loan. On initial recognition, the entity analyses a concessionary loan into its component parts and accounts for each component separately. The entity accounts for that part of a concessionary loan that is a social benefit in accordance with the Framework for the Preparation and Presentation of Financial Statements, where it is the issuer of the loan.

## SUBSEQUENT MEASUREMENT OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES

The entity measures all financial assets and financial liabilities after initial recognition using the following categories:

- Financial instruments at amortised cost.
- Financial instruments at cost.

All financial assets measured at amortised cost, or cost, are subject to an impairment review at each reporting date.

## RECLASSIFICATION

The entity does not reclassify a financial instrument while it is issued or held unless it is:

- a combined instrument that is required to be measured at fair value; or
- an investment in a residual interest that meets the requirements for reclassification.

## GAINS AND LOSSES

For financial assets and financial liabilities measured at amortised cost or cost, a gain or loss is recognised in surplus or deficit when the financial asset or financial liability is de-recognised or impaired, or through the amortisation process.

## IMPAIRMENT AND UNCOLLECTABILITY OF FINANCIAL ASSETS

The entity assesses at the end of each reporting period whether there is any objective evidence that a financial asset or group of financial assets are impaired. The impairment is calculated on an individual basis, based on historical losses, financial position of the entity, repayment terms and the commercial viability of the business.

### Financial assets measured at amortised cost:

If there is objective evidence that an impairment loss on financial assets measured at amortised cost has occurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account. The amount of the loss is recognised in surplus or deficit.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed by adjusting an allowance account. The reversal does not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed. The amount of the reversal is recognised in surplus or deficit.

**Financial assets measured at cost:**

If there is objective evidence that an impairment loss has occurred on an investment in a residual interest that is not measured at fair value because its fair value cannot be measured reliably, the amount of the impairment loss is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses are not reversed.

## DE-RECOGNITION

### FINANCIAL ASSETS

The entity de-recognises financial assets using trade date accounting.

The entity de-recognises a financial asset only when:

- the contractual rights to the cash flows from the financial asset expire, are settled or waived;
- the entity transfers to another party substantially all of the risks and rewards of ownership of the financial asset.

On de-recognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received is recognised in surplus or deficit.

If a transfer does not result in de-recognition because the entity has retained substantially all the risks and rewards of ownership of the transferred asset, the entity continues to recognise the transferred asset in its entirety and recognises a financial liability for the consideration received. In subsequent periods, the entity recognises any revenue on the transferred asset and any expense incurred on the financial liability. Neither the asset, and the associated liability nor the revenue, and the associated expenses are offset.

### FINANCIAL LIABILITIES

The entity de-recognises a financial liability (or a part of a financial liability) from its statement of financial position when it is extinguished — i.e. when the obligation specified in the contract is discharged, cancelled, expires or waived.

The difference between the carrying amount of a financial liability (or part of a financial liability) extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in surplus or deficit. Any liabilities that are waived, forgiven or assumed by another entity by way of a non-exchange transaction are accounted for in accordance with the Standard of GRAP on Revenue from Non-exchange Transactions (Taxes and Transfers).

**PRESENTATION**

Interest relating to a financial instrument or a component that is a financial liability is recognised as revenue or expense in surplus or deficit.

Dividends are recognised as revenue in surplus or deficit.

Losses and gains relating to a financial instrument or a component that is a financial liability is recognised as revenue or expense in surplus or deficit.

Distributions to holders of residual interests are debited by the entity directly to net assets, net of any related income tax benefit. Transaction costs incurred on residual interests is accounted for as a deduction from net assets, net of any related income tax benefit.

**OFFSETTING**

A financial asset and a financial liability are only offset and the net amount presented in the statement of financial position when the entity currently has a legally enforceable right to set off the recognised amounts and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

## 1.8 LEASES

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

When a lease includes both land and building elements, the entity assesses the classification of each element separately.

**FINANCE LEASES - LESSEE**

Finance leases are recognised as assets and liabilities in the statement of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments.

The discount rate used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease.

Minimum lease payments are apportioned between the finance charge and reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate on the remaining balance of the liability.

**OPERATING LEASES - LESSEE**

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. The difference between the amounts recognised as an exp ense and the contractual payments are recognised in the statement of financial position as an operating lease asset or liability.

## 1.9 EMPLOYEE BENEFITS

Employee benefits are all forms of consideration given by an entity in exchange for services rendered by employees.

Termination benefits are employee benefits payable as a result of either:

- an entity's decision to terminate an employee's employment before the normal retirement date; or
- an employee's decision to accept voluntary redundancy in exchange for those benefits.

### SHORT-TERM EMPLOYEE BENEFITS

Short-term employee benefits are employee benefits (other than termination benefits) that are due to be settled within twelve months after the end of the period in which the employees render the related service.

Short-term employee benefits include items such as:

- wages and salaries;
- short-term compensated absences (such as paid annual leave and paid sick leave) where the compensation for the absences is due to be settled within twelve months after the end of the reporting period in which the employees render the related employee service; and
- bonus, incentive and performance related payments payable within twelve months after the end of the reporting period in which the employees render the related service.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs. The entity measures the expected cost of accumulating compensated absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the reporting date.

The entity recognises the expected cost of bonus, incentive and performance related payments as accruals when the entity has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made. A present obligation exists when the entity has no realistic alternative but to make the payments.

### POST-EMPLOYMENT BENEFITS: DEFINED CONTRIBUTION PLANS

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

## 1.10 PROVISIONS AND CONTINGENCIES

Contingent assets and contingent liabilities are not recognised in the statements of financial position, but are disclosed as a note to the financial statements.

## 1.11 REVENUE FROM EXCHANGE TRANSACTIONS

Revenue is the gross inflow of economic benefits or service potential during the reporting period when those inflows result in an increase in net assets, other than increases relating to contributions from owners.

Exchange transactions are transactions in which one entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of cash, goods, services or use of assets) to another entity in exchange.

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

Revenue from exchange transactions include interest, royalties and dividends earned as well as profit on sale of assets.

### MEASUREMENT

Revenue is measured at the fair value of the consideration received or receivable, net of trade discounts and volume rebates.

### INTEREST, ROYALTIES AND DIVIDENDS

Revenue arising from the use by others of entity assets yielding interest, royalties and dividends is recognised when:

- It is probable that the economic benefits or service potential associated with the transaction will flow to the entity, and
- The amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method.

Royalties are recognised in surplus or deficit, as they are earned in accordance with the substance of the relevant agreements.

Dividends, or their equivalents are recognised, in surplus or deficit, when the entity's right to receive payment has been established.

Management fees are earned and recognised in surplus or deficit in line with the stipulations of the applicable funding contract.

## 1.12 REVENUE FROM NON-EXCHANGE TRANSACTIONS

Revenue comprises gross inflows of economic benefits or service potential received and receivable by an entity, which represents an increase in net assets, other than increases relating to contributions from owners.

Non-exchange transactions are transactions that are not exchange transactions. In a non-exchange transaction, an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

Restrictions on transferred assets are stipulations that limit or direct the purposes for which a transferred asset may be used, but do not specify that future economic benefits or service potential is required to be returned to the transferor if not deployed as specified.

Stipulations on transferred assets are terms in laws or regulation, or a binding arrangement, imposed upon the use of a transferred asset by entities external to the reporting entity.

Transfers are inflows of future economic benefits or service potential from non-exchange transactions, other than taxes, such as transfer of government grants from the shareholder or recognition of revenue in line with expenses incurred on conditional grants received.

**RECOGNITION**

An inflow of resources from a non-exchange transaction recognised as an asset is recognised as revenue, except to the extent that a liability is also recognised in respect of the same inflow.

As the entity satisfies a present obligation recognised as a liability in respect of an inflow of resources from a non-exchange transaction recognised as an asset, it reduces the carrying amount of the liability recognised and recognises an amount of revenue equal to that reduction.

**MEASUREMENT**

Revenue from a non-exchange transaction is measured at the amount of the increase in net assets recognised by the entity.

When, as a result of a non-exchange transaction, the entity recognises an asset, it also recognises revenue equivalent to the amount of the asset measured at its fair value as at the date of acquisition, unless it is also required to recognise a liability. Where a liability is required to be recognised it will be measured as the best estimate of the amount required to settle the obligation at the reporting date, and the amount of the increase in net assets, if any, recognised as revenue. When a liability is subsequently reduced, because the taxable event occurs or a condition is satisfied, the amount of the reduction in the liability is recognised as revenue.

### 1.13 INVESTMENT INCOME

Investment income is recognised on a time-proportion basis using the effective interest method.

### 1.14 IRREGULAR AND FRUITLESS AND WASTEFUL EXPENDITURE

Irregular expenditure means expenditure incurred in contravention of, or not in accordance with, requirements of any applicable legislation, including the PFMA.

Fruitless and wasteful expenditure means expenditure that was made in vain and would have been avoided had reasonable care been exercised.

All irregular and fruitless and wasteful expenditure are charged against the respective class of expenditure in the statements of financial performance in the period in which they are incurred and disclosed in a note in the period in which it is identified.

### 1.15 CONDITIONAL GRANTS AND RECEIPTS

Revenue received from conditional grants, donations and funding are recognised as revenue to the extent that the entity has complied with any of the criteria, conditions or obligations embodied in the agreement. To the extent that the criteria, conditions or obligations have not been met, a liability is recognised.

## 1.16 BUDGET INFORMATION

The economic entity is typically subject to budgetary limits in the form of appropriations or budget authorisations which is given effect through authorising appropriation via a vote.

General purpose financial reporting by the economic entity shall provide information on whether resources were obtained and used in accordance with the legally adopted budget. The standard applies to entities that are required or elect to make publicly available their approved budgets, in the economic entity's case this principle only applies to the budget of the controlled entity.

The approved budget is prepared on an accrual basis and presented by economic classification.

The approved budget covers the financial period from 1 April 2012 to 31 March 2013.

The financial statements and the budget are on the same basis of accounting therefore a comparison with the budgeted amounts for the reporting period have been included in the Statement of comparison of budget and actual amounts.

Comparative information is not required.

## 1.17 RELATED PARTIES

The economic entity operates in an economic sector currently dominated by entities directly or indirectly owned by the South African Government. As a consequence of the constitutional independence of the three spheres of government in South Africa, only entities within the national sphere of government are considered to be related parties.

Management are those persons responsible for planning, directing and controlling the activities of the economic entity, including those charged with the governance of the economic entity in accordance with legislation, in instances where they are required to perform such functions.

## 1.18 TRANSLATION OF FOREIGN CURRENCIES

### INVESTMENTS IN CONTROLLED ENTITIES

The results and financial position of a foreign operation are translated into the functional currency using the following procedures:

- assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- revenue and expenses for each surplus or deficit item are translated at exchange rates at the dates of the transactions; and
- all resulting exchange differences are recognised as a separate component of net assets.

Exchange differences arising on a monetary item that forms part of a net investment in a foreign operation are recognised initially in a separate component of net assets reserve and recognised in surplus or deficit on disposal of the net investment.

The cash flows of a foreign controlled entity are translated at the exchange rates between the functional currency and the foreign currency at the dates of the cash flows.

## 1.19 COMPARATIVE FIGURES

Comparative figures for the controlling entity have been restated to account for changes in the value of investments.

## 2. NEW STANDARDS AND INTERPRETATIONS

### 2.1 STANDARDS AND INTERPRETATIONS EARLY APPLIED

The economic entity has chosen to early apply the following standards and interpretations:

| Standard/ Interpretation: | Effective date: Years beginning on or after |
|---|---|
| • GRAP 6 (as revised 2010): Consolidated and Separate Financial Statements | 01 April 2014 |
| • GRAP 7 (as revised 2010): Investments in Associates | 01 April 2014 |
| • GRAP 1 (as revised 2012): Presentation of Financial Statements | 01 April 2013 |
| • GRAP 3 (as revised 2012): Accounting Policies, Change in Accounting Estimates and Errors | 01 April 2013 |
| • GRAP 7 (as revised 2012): Investments in Associates | 01 April 2013 |
| • GRAP 9 (as revised 2012): Revenue from Exchange Transactions | 01 April 2013 |

The revision of the above standards resulted in various terminology and definition changes. The changes were applied in the current and comparative periods.

### 2.2 STANDARDS AND INTERPRETATIONS ISSUED, BUT NOT YET EFFECTIVE

The economic entity has not applied the following standards and interpretations, which have been published and are mandatory for the economic entity's accounting periods beginning on or after 01 April 2013 or later periods:

| Standard/ Interpretation: | Effective date: Years beginning on or after |
|---|---|
| • GRAP 25: Employee benefits | 01 April 2013 |
| • GRAP 20: Related parties | 01 April 2013 |
| • GRAP 13 (as revised 2012): Leases | 01 April 2013 |
| • GRAP 17 (as revised 2012): Property, Plant and Equipment | 01 April 2013 |
| • GRAP 31 (as revised 2012): Intangible Assets (Replaces GRAP 102) | 01 April 2013 |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 3. TRADE AND OTHER RECEIVABLES

| | | | | |
|---|---|---|---|---|
| Trade receivables | 2,391 | 2,986 | 224 | 496 |
| Prepayments | 1,456 | 892 | 1,456 | 892 |
| Deposits | 975 | 1,006 | 975 | 994 |
| Other receivables | 2,506 | 2,171 | 1,715 | 1,314 |
| | **7,328** | **7,055** | **4,370** | **3,696** |

### FAIR VALUE OF TRADE AND OTHER RECEIVABLES

The entity is of the opinion that the carrying value approximates the fair value of trade and other receivables at period end, due to the short-term nature of these balances.

### TRADE AND OTHER RECEIVABLES PAST DUE BUT NOT IMPAIRED

Trade and other receivables which are less than 3 months past due are not considered to be impaired. At 31 March 2013, R nil (2012: R 216 000) was past due but not impaired.

The ageing of amounts past due but not impaired is as follows:

| | | | | |
|---|---|---|---|---|
| 1 month past due | 95 | 593 | - | - |
| 2 months past due | - | 159 | - | - |
| 3 months past due | 410 | 1,102 | - | - |
| More than 6 months past due but considered receivable | - | 216 | - | 216 |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 3. TRADE AND OTHER RECEIVABLES (CONTINUED)

### TRADE AND OTHER RECEIVABLES IMPAIRED

The amount of the provision for doubtful debts is R311 084 as of 31 March 2013 (2012: R297 316).

The ageing of these balances are as follows:

| | | | | |
|---|---|---|---|---|
| Over 6 months | 311 | 297 | 311 | 297 |

### RECONCILIATION OF PROVISION FOR IMPAIRMENT OF TRADE AND OTHER RECEIVABLES

| | | | | |
|---|---|---|---|---|
| Opening balance | 297 | 994 | 297 | 994 |
| Provision for impairment | 38 | 24 | 38 | 24 |
| Amounts written off as uncollectable | (24) | - | (24) | - |
| Amount reversed as payment was received | - | (721) | - | (721) |
| | **311** | **297** | **311** | **297** |

The creation and release of the provision for impaired receivables has been included in operating expenses in the statements of financial performance. Amounts charged to the allowance account are generally written off when the recovery of such amounts is improbable.

No collateral is held as security.

## 4. CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of:

| | | | | |
|---|---|---|---|---|
| Cash on hand | 10 | 5 | 10 | 5 |
| Bank balances | 242,233 | 301,498 | 228,702 | 287,784 |
| | **242,243** | **301,503** | **228,712** | **287,789** |

A guarantee (number M530013) was entered into whereby Standard Bank Ltd, Registration number 1962/000738/06, undertakes to pay to IBM South Africa (Pty) Ltd ("the beneficiary") the sum of R500 000 on receipt of a first written demand for payment from the beneficiary stating that the amount is due and payable by African Clinical Research Organisation SOC Ltd ("the principal") in terms of an agreement between the principal and the beneficiary. The guarantee is in respect of computer rentals.

The entity is of the opinion that the carrying value approximates the fair value of cash and cash equivalents at period end, due to the short-term nature.

## 5. PROPERTY, PLANT AND EQUIPMENT

| Economic entity | 2013 | | | 2012 | | |
|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation / impairment | Carrying value | Cost | Accumulated depreciation / impairment | Carrying value |
| | R '000 | R '000 | R '000 | R '000 | R '000 | R '000 |
| Buildings | 7,992 | (4,793) | 3,199 | 8,379 | (4,768) | 3,611 |
| Furniture and office equipment | 17,952 | (8,116) | 9,836 | 12,475 | (4,853) | 7,622 |
| Motor vehicles | 312 | (182) | 130 | 303 | (124) | 179 |
| Leasehold improvements | 24,667 | (17,237) | 7,430 | 23,685 | (13,167) | 10,518 |
| Other property, plant and equipment | 8,069 | (7,625) | 444 | 8,069 | (7,382) | 687 |
| Laboratory equipment | 20,836 | (10,432) | 10,404 | 20,753 | (8,133) | 12,620 |
| Total | **79,828** | **(48,385)** | **31,443** | **73,664** | **(38,427)** | **35,237** |

| Controlling entity | 2013 | | | 2012 | | |
|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation / impairment | Carrying value | Cost | Accumulated depreciation / impairment | Carrying value |
| | R '000 | R '000 | R '000 | R '000 | R '000 | R '000 |
| Furniture and office equipment | 16,497 | (6,996) | 9,501 | 11,044 | (3,736) | 7,308 |
| Motor vehicles | 308 | (178) | 130 | 299 | (120) | 179 |
| Leasehold improvements | 13,844 | (6,413) | 7,431 | 12,862 | (3,078) | 9,784 |
| Laboratory equipment | 11,566 | (6,080) | 5,486 | 10,558 | (3,970) | 6,588 |
| Total | **42,215** | **(19,667)** | **22,548** | **34,763** | **(10,904)** | **23,859** |

## 5. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

### RECONCILIATION OF PROPERTY, PLANT AND EQUIPMENT - ECONOMIC ENTITY - 2013

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Depreciation R '000 | Closing balance R '000 |
|---|---|---|---|---|---|
| Buildings | 3,611 | - | (116) | (296) | 3,199 |
| Furniture and office equipment | 7,622 | 6,319 | (111) | (3,994) | 9,836 |
| Motor vehicles | 179 | 9 | - | (58) | 130 |
| Leasehold improvements | 10,518 | 981 | - | (4,069) | 7,430 |
| Other property, plant and equipment | 687 | - | - | (243) | 444 |
| Laboratory equipment | 12,620 | 1,105 | (296) | (3,025) | 10,404 |
| | **35,237** | **8,414** | **(523)** | **(11,685)** | **31,443** |

### RECONCILIATION OF PROPERTY, PLANT AND EQUIPMENT - ECONOMIC ENTITY - 2012

| | Opening balance R '000 | Additions R '000 | Acquisitions through entity combinations R '000 | Disposals R '000 | Depreciation R '000 | Closing balance R '000 |
|---|---|---|---|---|---|---|
| Buildings | 2,700 | 29 | 1,183 | - | (301) | 3,611 |
| Furniture and office equipment | 7,473 | 3,975 | 8 | (880) | (2,954) | 7,622 |
| Motor vehicles | 144 | 113 | - | (14) | (64) | 179 |
| Leasehold improvements | 16,732 | 1,966 | - | (2,655) | (5,525) | 10,518 |
| Other property, plant and equipment | 980 | - | 86 | (49) | (330) | 687 |
| Laboratory equipment | 14,448 | 1,289 | - | (22) | (3,095) | 12,620 |
| | **42,477** | **7,372** | **1,277** | **(3,620)** | **(12,269)** | **35,237** |

## 5. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Depreciation R '000 | Closing balance R '000 |
|---|---|---|---|---|---|

### RECONCILIATION OF PROPERTY, PLANT AND EQUIPMENT - CONTROLLING ENTITY - 2013

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Depreciation R '000 | Closing balance R '000 |
|---|---|---|---|---|---|
| Furniture and office equipment | 7,308 | 6,141 | (103) | (3,845) | 9,501 |
| Motor vehicles | 179 | 9 | - | (58) | 130 |
| Leasehold improvements | 9,784 | 982 | - | (3,335) | 7,431 |
| Laboratory equipment | 6,588 | 1,105 | (61) | (2,146) | 5,486 |
| | **23,859** | **8,237** | **(164)** | **(9,384)** | **22,548** |

### RECONCILIATION OF PROPERTY, PLANT AND EQUIPMENT - CONTROLLING ENTITY - 2012

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Depreciation R '000 | Closing balance R '000 |
|---|---|---|---|---|---|
| Furniture and office equipment | 7,085 | 3,905 | (880) | (2,802) | 7,308 |
| Motor vehicles | 126 | 113 | - | (60) | 179 |
| Leasehold improvements | 13,795 | 1,966 | (2,655) | (3,322) | 9,784 |
| Laboratory equipment | 7,656 | 1,290 | (22) | (2,336) | 6,588 |
| | **28,662** | **7,274** | **(3,557)** | **(8,520)** | **23,859** |

### PLEDGED AS SECURITY

None of the assets above have been pledged as security or have restrictions on title.

The carrying value of assets included in furniture and office equipment under finance leases: R45 000 (2012:R208 000).

## 6. INTANGIBLE ASSETS

| Economic entity | 2013 | | | 2012 | | |
|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation / impairment | Carrying value | Cost | Accumulated depreciation / impairment | Carrying value |
| | R '000 | R '000 | R '000 | R '000 | R '000 | R '000 |
| Computer software | 3,388 | (2,188) | 1,200 | 1,181 | (877) | 304 |

| Controlling entity | 2013 | | | 2012 | | |
|---|---|---|---|---|---|---|
| | Cost | Accumulated depreciation / impairment | Carrying value | Cost | Accumulated depreciation / impairment | Carrying value |
| | R '000 | R '000 | R '000 | R '000 | R '000 | R '000 |
| Computer software | 2,746 | (1,548) | 1,198 | 539 | (242) | 297 |

### RECONCILIATION OF INTANGIBLE ASSETS - ECONOMIC ENTITY - 2013

| | Opening balance R '000 | Additions R '000 | Amortisation R '000 | Total R '000 |
|---|---|---|---|---|
| Computer software | 304 | 2,217 | (1,321) | 1,200 |

### RECONCILIATION OF INTANGIBLE ASSETS - ECONOMIC ENTITY - 2012

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Amortisation R '000 | Total R '000 |
|---|---|---|---|---|---|
| Computer software | 254 | 462 | (100) | (312) | 304 |

### RECONCILIATION OF INTANGIBLE ASSETS - CONTROLLING ENTITY - 2013

| | Opening balance R '000 | Additions R '000 | Amortisation R '000 | Total R '000 |
|---|---|---|---|---|
| Computer software | 297 | 2,217 | (1,316) | 1,198 |

### RECONCILIATION OF INTANGIBLE ASSETS - CONTROLLING ENTITY - 2012

| | Opening balance R '000 | Additions R '000 | Disposals R '000 | Amortisation R '000 | Total R '000 |
|---|---|---|---|---|---|
| Computer software | 216 | 462 | (100) | (281) | 297 |

### RESTRICTED TITLE

None of the above intangible assets have restrictions in title or have been pledged as security.

| | Controlling entity | |
|---|---|---|
| | 2013 | 2012 |
| | R '000 | R '000 |

## 7. INVESTMENTS IN CONTROLLED ENTITIES

| Name of company | Reporting period end | % holding 2013 | % holding 2012 | Carrying amount | Carrying amount |
|---|---|---|---|---|---|
| African Clinical Research Organisation (Pty) Ltd | 31 Mar | 81.67% | 81.67% | - | - |
| Cape Carotene (Pty) Ltd | 28 Feb | 100.00% | 100.00% | - | - |
| Biotec Laboratories (Pty) Ltd | 28 Feb | 100.00% | 100.00% | - | - |
| Keep the Dream 278 NPC * | 28 Feb | -% | 100.00% | - | - |
| Keep the Dream 279 NPC * | 28 Feb | -% | 100.00% | - | - |
| ZA Biotech (Pty) Ltd | 28 Feb | 98.00% | 98.00% | - | - |
| Bio2Biz (Pty) Ltd | 31 Dec | 58.75% | 58.75% | - | - |
| QuantuMDx (Pty) Ltd * | 31 Mar | -% | 100.00% | - | - |
| Capelands Nurseries (Pty) Ltd | 31 Mar | 100.00% | 100.00% | - | - |
| East Coast Rapid Diagnostics (Pty) Ltd | 31 Mar | 100.00% | 100.00% | - | - |
| Genecare Molecular Genetics (Pty) Ltd | 30 Sep | 100.00% | 100.00% | - | - |
| Cape Gourmet Mushrooms (Pty) Ltd | 28 Feb | 58.17% | 58.17% | - | - |
| Natural Carotenoids South African (Pty) Ltd | 31 Jul | 98.83% | 98.83% | - | - |
| | | | | - | - |

* *These entities were de-registered with CIPC during the 2012/2013 financial year.*

The carrying amounts of controlled entities are shown net of impairment losses.

### CONTROLLED ENTITIES WITH DIFFERENT REPORTING DATES FROM THAT OF THE CONTROLLING ENTITY

A number of controlled entities have reporting dates that differ from the controlling entity. If the reporting date is within a 3 month period of the reporting period of the controlling entity, the annual financial statements for that period will be used in consolidating the results of the entity. The management accounts for the entities were reviewed in order to ensure that no significant changes took place between the reporting date and 31 March 2013.

Where the reporting dates differ with more than 3 months, a review of the financial affairs of the entity are performed up to the reporting date of the controlling entity and this is used for consolidation purposes.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 8. INVESTMENTS IN ASSOCIATES

| Name of company | Reporting period end | % holding 2013 | % holding 2012 | Equity accounted value | Equity accounted value | Carrying amount | Carrying amount |
|---|---|---|---|---|---|---|---|
| Adept Airmotive (Pty) Ltd | 28 Feb | 25.00% | 25.00% | 414 | - | - | - |
| Aloe Ferox/Pedal trading (Pty) Ltd * | 28 Feb | -% | 48.00% | - | - | - | - |
| Azitu Biotech (Pty) Ltd ** | 31 Mar | 60.00% | 60.00% | - | - | - | - |
| Bio Careers Technology (Pty) Ltd ** | 28 Feb | 51.00% | 51.00% | - | - | - | - |
| Bio Gold Holdings (Pty) Ltd | 28 Feb | 33.30% | 33.30% | 264 | 1,109 | 1,658 | 1,658 |
| Blue Cube Systems (Pty) Ltd | 31 Dec | 25.00% | 25.00% | 3,795 | 3,285 | 3,013 | 3,013 |
| Centre of Proteomic & Genomic Research NPC | 31 Mar | 50.00% | 50.00% | 1,055 | - | - | - |
| Citrogold (Pty) Ltd | 31 Mar | 33.30% | 33.30% | 3,079 | 2,545 | 1,488 | 1,488 |
| Commercial Aquaculture (Pty) Ltd | 28 Feb | 34.00% | 34.00% | - | - | - | - |
| Control Maze Trading (Pty) Ltd ** | 28 Feb | 51.00% | 51.00% | - | 29 | - | - |
| Edgi Tech (Pty) Ltd | 28 Feb | 26.00% | 26.00% | - | - | - | - |
| Elevation Biotech (Pty) Ltd * | 28 Feb | -% | 46.00% | - | - | - | - |
| Everpix (Pty) Ltd **** | 28 Feb | -% | 20.00% | - | - | - | - |
| Eyeborn (Pty) Ltd | 31 Mar | 25.00% | 25.00% | - | - | - | - |
| Femtech (Pty) Ltd ** | 28 Feb | 69.00% | 69.00% | - | - | - | - |
| Geratech Zirconium Benefication (Pty) Ltd | 28 Feb | 48.02% | 48.02% | - | - | - | - |
| Inqaba Biotec (Pty) Ltd | 28 Feb | 37.00% | 37.00% | 3,309 | 3,272 | 2,339 | 2,339 |
| Ithemba Pharmaceuticals (Pty) Ltd ** | 31 Dec | 50.10% | 50.10% | - | - | - | - |
| Jerihsa Medical (Pty) Ltd | 28 Feb | 31.00% | 31.00% | - | - | - | - |

| | Economic entity | | Economic entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 8. INVESTMENTS IN ASSOCIATES (CONTINUED)

| Name of company | Reporting period end | % holding 2013 | % holding 2012 | Equity accounted value | Equity accounted value | Carrying amount | Carrying amount |
|---|---|---|---|---|---|---|---|
| Kapa Biosystems (Pty) Ltd | 31 May | 49.00% | 49.00% | 5,657 | - | - | - |
| LifeAssay Diagnostics (Pty) Ltd | 28 Feb | 26.00% | 26.00% | - | - | - | - |
| Medupi Pharma (Pty) Ltd (previously iKhambi le Nala (Pty) Ltd)** | 28 Feb | 59.60% | 59.60% | - | 3,950 | - | 3,950 |
| Mycoroot (Pty) Ltd | 28 Feb | 25.00% | 25.00% | - | - | - | - |
| Niocad (Pty) Ltd | 28 Feb | 22.00% | 22.00% | - | - | - | - |
| Nkomazi Chemicals (Pty) Ltd | 30 Jun | 35.74% | 35.74% | - | - | - | - |
| Nulane Investments 219 (Pty) Ltd | 28 Feb | 26.00% | 26.00% | - | - | - | - |
| Optimal Energy (Pty) Ltd | 28 Feb | 33.80% | 33.80% | - | - | - | - |
| Ribotech (Pty) Ltd | 31 Aug | 35.00% | 35.00% | - | - | - | - |
| Robonica (Pty) Ltd | 31 Mar | 41.00% | 41.00% | - | - | - | - |
| Silver Lake Trading (Pty) Ltd | 28 Feb | 28.00% | 28.00% | - | - | - | - |
| Stellenbosch Wind Energies Technologies (Pty) Ltd (from 28/03/2013) | 31 Mar | 26.00% | -% | 2,600 | - | 2,600 | - |
| Tenacent SA (Pty) Ltd | 28 Feb | 20.00% | 20.00% | - | - | - | - |
| Vibol Systems (Pty) Ltd *** | 28 Feb | -% | 26.50% | - | - | - | - |
| Xsit (Pty) Ltd ***** | 31 Mar | 36.00% | 50.00% | 2,651 | 2,738 | 3,000 | 3,000 |
| | | | | 22,824 | 16,928 | 14,098 | 15,448 |

The carrying amounts of investments in associates are shown net of impairment losses.

* *These entities were de-registered with CIPC during the 2012/2013 financial year.*

** *Although the controlling entity holds more than 50% of the voting powers in these entities, the investment is not considered a controlled entity because the controlling entity does not have control over the entity due to voting rights/appointment powers of directors. These investments are therefore classified as investments in associates.*

*** *The controlling entity sold its shares in Vibol (Pty) Ltd for R24 000 during the 2012/2013 financial year.*

**** *The controlling entity did not exercise its right to appoint a director as stipulated in the shareholders agreement. As a result, the investee company elected to have the controlling entity forfeit its shares in the company. The controlling entity reviewed its position and based on the financial health of the company and future prospects decided it's best not to pursue the matter further.*

***** *The dilution in shareholding in Xsit (Pty) Ltd is due to a rights issue approved by the company and exercised by the other shareholder in Xsit (Pty) Ltd before 31 March 2013. Subsequent to the reporting date, the controlling entity exercised its right to take up additional shares in the company which restored the shareholding to 49%.*

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 8. INVESTMENTS IN ASSOCIATES (CONTINUED)

### MOVEMENTS IN CARRYING VALUE

| | Economic entity 2013 R '000 | Economic entity 2012 R '000 | Controlling entity 2013 R '000 | Controlling entity 2012 R '000 |
|---|---|---|---|---|
| Opening balance | 16,928 | 28,840 | 15,448 | 32,498 |
| Share of surplus | 6,883 | 1,881 | - | - |
| Acquisition of investment in associate | 2,600 | - | 2,600 | - |
| Dividends received | (1,035) | (432) | - | - |
| Impairment of investments in associates | (2,552) | (13,361) | (3,950) | (17,050) |
| | **22,824** | **16,928** | **14,098** | **15,448** |

### PRINCIPAL ACTIVITIES

| Legal name | Principal activity |
|---|---|
| Adept Airmotive (Pty) Ltd | Development and commercialisation of general aviation engine |
| Aloe Ferox/Pedal Trading (Pty) Ltd | Development of pharmaceutical components |
| Azitu Biotech (Pty) Ltd | Propagation of plants using tissue culture |
| Bio Careers Technology (Pty) Ltd | Online career recruitment portal for SA science |
| Bio Gold Holdings (Pty) Ltd | Commercialisation of PBRs of crop varieties |
| Blue Cube Systems (Pty) Ltd | Development of real-time IT systems for Mining applications |
| Citro Gold (Pty) Ltd | Commercialisation of PBRs of crop varieties |
| Edgi Tech (Pty) Ltd | Development of a modular fixture for knock-down products |
| Femtech (Pty) Ltd | Production of recombinant proteins |
| Geratech Zirconium Benefication (Pty) Ltd | Production of zirconium chemicals and oxides |
| Inqaba Biotec (Pty) Ltd | DNA sequencing in all disciplines of molecular biology |
| Ithemba Pharmaceuticals (Pty) Ltd | Developing medicines for urgent health needs |
| Kapa Biosystems (Pty) Ltd | Manufacture of next generation novel enzymes |
| Medupi Pharma (Pty) Ltd | Development of a self-sampling device for private cervical cancer screening |
| Optimal Energy (Pty) Ltd | Development of electrical motor vehicle |
| Ribotech (Pty) Ltd | Manufacturing of rHOG-CSF. Product is used in cancer treatment |
| Stellenbosch Wind Energies Technologies (Pty) Ltd | Manufacturing unique high quality wind turbines for use in renewable energy electrical power systems |
| Xsit (Pty) Ltd | Biocontrol using sterile techniques in citrus industry |

All the above entities are incorporated in South Africa

| | Economic entity | |
|---|---|---|
| | 2013 | 2012 |
| | R '000 | R '000 |

## 8. INVESTMENTS IN ASSOCIATES (CONTINUED)

### SUMMARY OF CONTROLLED ENTITY'S INTEREST IN ASSOCIATES

| | 2013 R '000 | 2012 R '000 |
|---|---|---|
| Total assets | 226,198 | 345,657 |
| Total liabilities | 368,545 | 442,524 |
| Net assets/(liabilities) | (142,347) | (96,867) |
| Revenue | 148,752 | 148,217 |
| Surplus/(deficit) | (36,578) | (91,908) |

Included in the above results are:

Medupi Pharma (Pty) Ltd: Assets (R5.6 million), Liabilities (R1.7 million) and operating loss (R2.8 million). The audit opinion on this company was disclaimed due to material uncertainties existing over the financial results of the entity.

### ASSOCIATES WITH DIFFERENT REPORTING DATES

A number of associate entities have reporting dates that differ from that of the controlling entity. If the reporting date is within a 3 month period of the reporting period end of the controlling entity, the annual financial statements for that period will be used in the results of the entity using equity accounting. The management accounts for the entities were reviewed in order to ensure that no significant changes took place between reporting date and 31 March 2013.

### UNRECOGNISED SHARE OF LOSSES OF ASSOCIATES

The economic entity has discontinued recognising its share of the deficits of associate companies, as the investments are held at R nil and the economic entity has no obligation for any deficits of the associates. The total unrecognised deficits for the current period amount to R27,053,902 (2012: R34,737,386). The accumulated unrecognised deficits to date amount to R126,636,988 (2012: R99,583,086).

## 9. LOANS AND RECEIVABLES

### ASSOCIATES

| | Economic entity 2013 R '000 | Economic entity 2012 R '000 | Controlling entity 2013 R '000 | Controlling entity 2012 R '000 |
|---|---|---|---|---|
| Adept Airmotive (Pty) Ltd * | - | - | - | - |
| Azitu Biotech (Pty) Ltd<br>*The loan has no fixed repayment terms and accrues interest at prime less 4% for the first 5 years of the loan. After this the loan accrues interest at prime.* | 2,250 | - | 2,250 | 437 |
| Bio Careers Technology (Pty) Ltd<br>*The loan has no fixed repayment terms and does not accrue interest.* | - | - | - | - |
| Geratech Zirconium Benefication (Pty) Ltd<br>*The loan has no fixed repayment terms and accrues interest at prime plus 3%.* | - | - | 1,500 | - |
| Inqaba Biotech (Pty) Ltd * | 1,683 | - | 1,683 | - |
| LifeAssay Diagnostics (Pty) Ltd<br>*The loan has no fixed repayment terms and accrues interest at prime plus 1%.* | - | 864 | - | 1,063 |
| Robonica (Pty) Ltd * | - | - | - | - |
| Xsit (Pty) Ltd<br>*The loan has no fixed repayment terms and accrues interest at prime plus 1%* | 8,109 | 8,190 | 8,109 | 8,190 |
| | **12,042** | **9,054** | **13,542** | **9,690** |

* *These loans have no fixed repayment terms and accrue interest at the prime interest rate.*

Management does not intend to realise these loans within the next 12 months.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 9. LOANS AND RECEIVABLES (CONTINUED)

### OTHER ENTITIES

| | | | | |
|---|---|---|---|---|
| Altis Biologics (Pty) Ltd ** | 693 | 299 | 693 | 299 |
| Bermuda - DJOZ (Pty) Ltd ** | - | - | - | - |
| Cerdak (Pty) Ltd<br>*The loan has no fixed repayment terms and accrues interest at prime plus 1%.* | - | - | - | - |
| Cipla Medpro * | 1,000 | 1,000 | 1,000 | 1,000 |
| EnerQi Technologies (Pty) Ltd<br>*The loan will be repaid in monthly instalments from the second anniversary of loan date and accrues interest at prime.* | - | 153 | - | 153 |
| Ferox Pharm (Pty) Ltd * | - | 905 | - | 945 |
| Greencult CC ** | - | - | - | - |
| Integrated Pricing Technologies (Pty) Ltd ** | - | - | - | - |
| International Maritime Information Systems (Pty) Ltd * | - | - | - | - |
| Justick International (Pty) Ltd * | - | - | - | - |
| Korwe Software (Pty) Ltd ** | - | - | - | - |
| Ostecs (Pty) Ltd ** | - | - | - | - |
| Safe Eggs (Pty) Ltd ** | - | - | - | - |
| Sunspace (Pty) Ltd ** | - | - | - | - |
| Synexa (Pty) Ltd<br>*The loans have no fixed repayment terms and accrue interest at prime less 7.5%.* | - | - | - | - |
| TMI Consultancy CC<br>*The loan will be repaid in bi-annual instalments commencing 18 months after granting of the loan and accrues interest at prime.* | - | 1,083 | - | 1,083 |
| | **1,693** | **3,440** | **1,693** | **3,480** |

* *These loans have no fixed repayment terms and do not accrue interest.*
** *These loans have no fixed repayment terms and accrue interest at the prime interest rate.*

Management does not intend to realise the loans within the next 12 months.

Carrying amounts of Loans and Receivables are shown net of impairment losses.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 9. LOANS AND RECEIVABLES (CONTINUED)

Loans and Receivables include the following categories:

| | | | | |
|---|---|---|---|---|
| Loans to associates | 12,042 | 9,054 | 13,542 | 9,690 |
| Loans to other entities | 1,693 | 3,440 | 1,693 | 3,480 |
| | **13,735** | **12,494** | **15,235** | **13,170** |

### LOANS TO ASSOCIATES AND OTHER ENTITIES IMPAIRED

As of 31 March 2013, loans to associates and other entities of R111,163,382 (2012: R166,223,225) were impaired and provided for. The movement from prior year to current year includes the de-registration of previously impaired investee companies as well as current year impairment.

The creation and release of provision for impaired receivables have been included in operating expenses in the statements of financial performance. Amounts charged to the allowance account are generally written off when the recovery of such amounts is improbable.

The maximum exposure to credit risk at the reporting date is the carrying amount of each class of loan mentioned above. The economic entity does not hold collateral as security, apart from the loan with Azitu Biotech (Pty) Ltd. This loan is secured by way of a notarial bond over Farm 921, Portion 5, Sir Lowry's Pass Road, Stellenbosch.

## 10. OTHER FINANCIAL ASSETS

### DESIGNATED AT COST

| | | | | |
|---|---|---|---|---|
| Disa Vascular (Pty) Ltd | - | 3,070 | - | 3,070 |
| The Biologicals and Vaccines Institute of SA (Pty) Ltd | 40,572 | 40,572 | 40,572 | 40,572 |
| Justick International (Pty) Ltd | - | - | - | - |
| Varibox (Pty) Ltd | 3,274 | - | 3,274 | - |
| | **43,846** | **43,642** | **43,846** | **43,642** |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 11. FINANCE LEASE OBLIGATION

### MINIMUM LEASE PAYMENTS DUE

| | 2013 | 2012 | 2013 | 2012 |
|---|---|---|---|---|
| - within one year | 127 | 166 | 127 | 166 |
| - in second to fifth year inclusive | - | 126 | - | 126 |
| | 127 | 292 | 127 | 292 |
| Less: future finance charges | (13) | (46) | (13) | (46) |
| Present value of minimum lease payments | **114** | **246** | **114** | **246** |
| Present value of minimum lease payments due | | | | |
| - within one year | 114 | 132 | 114 | 132 |
| - in second to fifth year inclusive | - | 114 | - | 114 |
| | **114** | **246** | **114** | **246** |

It is the economic entity's policy to lease certain office equipment under finance leases.

The average lease term is 5 years and the average effective borrowing rate is 25% (2012: 25%).

Interest rates are linked to prime at the contract date. All leases have fixed repayments and no arrangements have been entered into for contingent rent.

## 12. TRADE AND OTHER PAYABLES

| | 2013 | 2012 | 2013 | 2012 |
|---|---|---|---|---|
| Trade payables | 20,618 | 9,000 | 17,695 | 6,794 |
| Employee related accruals | 10,919 | 9,986 | 10,511 | 9,505 |
| Other payables | 3,025 | 3,244 | 2,428 | 2,248 |
| | **34,562** | **22,230** | **30,634** | **18,547** |

## 13. LOANS FROM SHAREHOLDERS

| | 2013 | 2012 | 2013 | 2012 |
|---|---|---|---|---|
| Loans from shareholders<br>*These loans are non-interest bearing and have no fixed repayment terms.* | 2,249 | 2,295 | - | - |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 14. COMMITTED CONDITIONAL GRANTS AND RECEIPTS

### COMMITTED CONDITIONAL GRANT BALANCES COMPRISE OF:

| | | | | |
|---|---|---|---|---|
| Bio-fuels | 5,402 | 16,482 | 5,402 | 16,482 |
| ICT flagship programme | 3,000 | 3,000 | 3,000 | 3,000 |
| South Africa Malaria Institute | - | 745 | - | 745 |
| South African HIV Research and Innovation Platform | - | 2,427 | - | 2,427 |
| Sugarcane | 4,299 | 6,639 | 4,299 | 6,639 |
| South African TB Research and Innovation Initiative | - | 7,444 | - | 7,444 |
| Advanced Manufacturing Technology Strategy | 7,024 | 7,024 | 7,024 | 7,024 |
| Alternative Energy | 250 | 250 | 250 | 250 |
| Technology Station Programme | 7,299 | 299 | 7,299 | 299 |
| Other grants | - | 54 | - | - |
| | **27,274** | **44,364** | **27,274** | **44,310** |

## 15. REVENUE FROM NON-EXCHANGE TRANSACTIONS

| | | | | |
|---|---|---|---|---|
| DST allocation received during the year | 456,350 | 442,688 | 456,350 | 442,688 |
| Ring-fenced funding recognised for: | | | | |
| Alternative Energy | - | 1,250 | - | 1,250 |
| Advanced Manufacturing Technology Strategy | - | 18,772 | - | 18,772 |
| Bio-fuels | 11,081 | 3,687 | 11,081 | 3,687 |
| South African Malaria Institute | 770 | 2,750 | 770 | 2,750 |
| South African HIV Research and Innovation Platform | 2,427 | 16,681 | 2,427 | 16,681 |
| Sugarcane | 2,340 | - | 2,340 | - |
| South African TB Research and Innovation Initiative | 7,444 | 1,106 | 7,444 | 1,106 |
| Other | 140 | - | - | - |
| | **480,552** | **486,934** | **480,412** | **486,934** |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 16. OTHER INCOME

| | | | | |
|---|---|---|---|---|
| Royalties received | 966 | 1,020 | 966 | 1,020 |
| Other income | 6,915 | 2,966 | 1,278 | 14 |
| EWSETA - Training subsidy | 2,284 | - | 2,284 | - |
| Profit on de-registration of controlled entity | 1,614 | - | 1,442 | - |
| Management fees | 2,000 | 2,143 | 2,000 | 2,143 |
| | **13,779** | **6,129** | **7,970** | **3,177** |

## 17. INVESTMENT INCOME

### DIVIDENDS RECEIVED

| | | | | |
|---|---|---|---|---|
| Received from associates | - | - | 1,035 | 432 |

### INTEREST RECEIVED

| | | | | |
|---|---|---|---|---|
| Interest earned - Loans and receivables | 5,349 | 6,404 | 5,650 | 7,021 |
| Interest earned - Bank | 25,387 | 6,072 | 25,087 | 5,564 |
| Interest received - Loans and receivables | 1,952 | 671 | 1,952 | 671 |
| | **32,688** | **13,147** | **32,689** | **13,256** |
| | **32,688** | **13,147** | **33,724** | **13,688** |

## 18. PROJECT FUNDING EXPENDITURE

| | | | | |
|---|---|---|---|---|
| Project grants - third party | 286,854 | 170,362 | 300,850 | 179,892 |

## 19. IMPAIRMENT OF INVESTMENTS

| | | | | |
|---|---|---|---|---|
| Impairment of Financial assets at cost | 5,622 | 1,264 | 7,020 | 4,953 |
| Impairment of Financial assets at amortised cost | 6,900 | 35,061 | 12,599 | 56,516 |
| Debts impaired | 43 | 3 | 38 | - |
| | **12,565** | **36,328** | **19,657** | **61,469** |

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 20. OTHER OPERATING EXPENSES

Included in other operating expenses are the following:

| | | | | |
|---|---|---|---|---|
| Auditors remuneration | 2,254 | 1,593 | 1,664 | 1,293 |
| Consulting and professional fees | 17,885 | 9,286 | 16,546 | 7,823 |
| Consumables | 1,085 | 1,171 | 1,085 | 1,171 |
| Lease rentals on operating lease | 11,500 | 9,349 | 10,481 | 7,974 |
| Placement fees | 3,264 | 2,330 | 3,264 | 2,330 |
| Printing and stationery | 1,951 | 1,580 | 1,768 | 1,412 |
| Training | 4,839 | 1,830 | 4,794 | 1,805 |
| Travel and accommodation | 16,972 | 10,954 | 16,961 | 10,771 |
| Electricity | 2,874 | 2,605 | 2,691 | 2,431 |
| Sponsorships | 4,137 | 2,802 | 4,137 | 2,802 |

## 21. TAXATION

The controlling entity is exempt from income tax in terms of the provisions of section 10(1)(cA)(i) of the Income Tax Act.

## 22. NET CASH FLOWS (USED IN)/ FROM OPERATING ACTIVITIES

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |
| (Deficit)/surplus | (49,118) | 66,207 | (53,738) | 60,870 |
| Adjustments for: | | | | |
| Depreciation and amortisation | 13,005 | 12,581 | 10,700 | 8,801 |
| Assets written off | 523 | 3,548 | 164 | - |
| Loss on disposal of investment | - | 7,710 | - | - |
| Reversal of other liabilities | - | (35,411) | - | (35,411) |
| Income from equity accounted investments | (418) | (350) | - | - |
| Assets written off | - | - | - | 3,657 |
| Dividends received | 1,035 | 432 | - | - |
| Impairment on investments | 12,565 | 36,328 | 19,657 | 61,469 |
| Taxation | 115 | - | - | - |
| Profit on sale of investment | (24) | - | (24) | - |
| Movement in provisions | - | (2,157) | - | (2,157) |
| Increase in provision for doubtful debts | - | 24 | - | 24 |
| Business transfer * | - | (236) | - | - |
| Finance income accrued for on loan accounts | (6,997) | (6,404) | (6,664) | (7,022) |
| Changes in working capital: | | | | |
| Trade and other receivables | (316) | 2,714 | (712) | 1,275 |
| Trade and other payables | 11,993 | 3,271 | 13,060 | 3,434 |
| Income received in advance | (180) | (1,689) | (180) | (1,689) |
| | **(17,817)** | **86,568** | **(17,737)** | **93,251** |

* *This relates to the acquisition of additional shares in Natural Carotenoids South African (Pty) Ltd resulting in the investment moving from an investment in associate to an investment in a controlled entity.*

## 23. RELATED PARTIES

| | Economic entity | |
|---|---|---|
| | 2013 | 2012 |
| | R '000 | R '000 |

| | |
|---|---|
| Relationships | |
| Members | Refer to members' report note |
| Controlled entities | Refer to note 7 |
| Associates | Refer to note 8 |
| National Department | Ministry of Science and Technology |
| National Government Business Enterprises | Council for Scientific and Industrial Research |
| National Public Entities | Agricultural Research Council/National Research Foundation |

### RELATED PARTY BALANCES

| | 2013 R '000 | 2012 R '000 |
|---|---|---|
| **Loan accounts - Owing to related parties** | | |
| **ACRO** - Batswadi Pharmaceuticals (Pty) Ltd | (2,625) | (2,625) |
| **Cape Gourmet Mushrooms** - H Henderson | (55) | (55) |
| **NCSA** - Gradchem Solutions CC | (82) | (82) |
| **Amounts included in Trade receivables/(Trade Payables) regarding related parties** | | |
| **Capelands Nurseries** - Vitrocom (Pty) Ltd | - | (185) |
| **Committed conditional grants** | | |
| **TIA** - Ministry of Science and Technology | (27,274) | (44,310) |
| **Loan accounts - Owing to related parties** | | |
| **ACRO** - Batswadi Pharmaceuticals (Pty) Ltd | 380 | 379 |
| **ACRO** - Loans from directors | - | 92 |

## 23. RELATED PARTIES (CONTINUED)

| | Economic entity | |
|---|---|---|
| | 2013 | 2012 |
| | R '000 | R '000 |
| **RELATED PARTY TRANSACTIONS** | | |
| **Interest received from related parties** | | |
| **TIA** - Interest received from associates | (5,324) | (671) |
| **Sales to related parties** | | |
| **ACRO** - Batswadi Pharmaceuticals (Pty) Ltd | (2) | (7) |
| **Royalties received from related parties** | | |
| **TIA** - Royalties received from associates | (804) | (327) |
| **Dividends received from related parties** | | |
| **TIA** - Dividends received from associates | (1,035) | (432) |
| **Allocations received** | | |
| **TIA** - Ministry of Science and Technology | (480,412) | (486,934) |
| **Management fees earned** | | |
| **TIA** - Ministry of Science and Technology | (2,000) | (2,143) |
| **Grants disbursed** | | |
| **TIA** - Council for Scientific and Industrial Research | 17,933 | 21,665 |
| **TIA** - Agricultural Research Council | 2,000 | - |
| **TIA** - Grants disbursed to associates | 27,946 | 12,571 |

## 24. MEMBERS' EMOLUMENTS

### EXECUTIVE

### 2013

| | Emoluments R '000 | Annual Bonus R '000 | Allowances** R '000 | Other R '000 | Total R '000 |
|---|---|---|---|---|---|
| **TIA** | | | | | |
| Mr. S Duma (CEO) | 1,577 | 168 | 286 | 22 | 2,053 |
| Ms. B Kortjass (CFO) | 1,539 | 145 | 22 | 19 | 1,725 |
| Dr. B Gumede* | 90 | - | 2 | - | 92 |
| Dr. J Chantson * | 91 | - | 1 | 59 | 151 |
| Ms. M Mkhwanazi | 1,109 | 97 | 225 | 16 | 1,447 |
| Mr. N Rassool * | 70 | - | 11 | - | 81 |
| Mr. N Ndou | 1,094 | 103 | 147 | 13 | 1,357 |
| Ms. P Maruping | 1,446 | 145 | 139 | 19 | 1,749 |
| Dr. S Ntutela * | 89 | - | 1 | - | 90 |
| Mr. W van der Merwe * | 101 | - | 1 | - | 102 |
| Adv. A Maisela * | 63 | - | 6 | - | 69 |
| Dr. S Gumbi (from 01/04/2012) | 1,388 | - | 45 | 17 | 1,450 |
| Adv. T Polaki (from 01/09/2012) | 515 | - | 7 | 11 | 533 |
| Dr. B Okole * | 110 | - | - | - | 110 |
| Mr. MI Mazibuko (COO) (from 01/10/2012) | 805 | - | 19 | 17 | 841 |
| **ACRO** | | | | | |
| Ms. M Richardson | 1,386 | - | - | - | 1,386 |
| **Cape Carotene** | | | | | |
| Executive Director | 209 | - | - | - | 209 |
| | **11,682** | **658** | **912** | **193** | **13,445** |

* *The controlling entity's executive committee (Exco) was restructured in April 2012. The emoluments for members not serving on the new Exco is only disclosed for April 2012.*

** *Allowances include the following: Cell phone, Car, Acting, Transport and Subsistence.*

## 24. MEMBERS' EMOLUMENTS (CONTINUED)

### EXECUTIVE

### 2012

| | Emoluments R '000 | Annual Bonus R '000 | Allowances** R '000 | Other R '000 | Total R '000 |
|---|---|---|---|---|---|
| **TIA** | | | | | |
| Mr. S Duma (CEO) | 1,478 | 66 | 246 | - | 1,790 |
| Ms. B Kortjass (CFO) | 1,450 | 57 | 91 | - | 1,598 |
| Dr. B Okole | 1,249 | 48 | 18 | - | 1,315 |
| Dr. J Chantson | 1,017 | 39 | 37 | - | 1,093 |
| Ms. L Moalusi | 1,060 | 41 | 17 | - | 1,118 |
| Ms. M Mkhwanazi | 861 | 38 | 267 | - | 1,166 |
| Mr. N Rassool | 789 | 33 | 110 | - | 932 |
| Mr. N Ndou | 1,033 | 41 | 12 | - | 1,086 |
| Ms. P Maruping | 1,361 | 57 | 323 | - | 1,741 |
| Dr. S Ntutela | 994 | 39 | 24 | - | 1,057 |
| Mr. W van der Merwe (from 01/12/2011) | 396 | - | 4 | - | 400 |
| Adv. A Maisela | 717 | 30 | 72 | - | 819 |
| Dr. B Gumede | 1,004 | 39 | 29 | - | 1,072 |
| **ACRO** | | | | | |
| Ms. M Richardson | 1,311 | - | - | 106 | 1,417 |
| **ZA Biotech** | | | | | |
| Mr. R Blower | 938 | - | - | - | 938 |
| | **15,658** | **528** | **1,250** | **106** | **17,542** |

** *Allowances include the following: Cell phone, Car, Acting, Transport and Subsistence.*

## 24. MEMBERS' EMOLUMENTS (CONTINUED)

### BOARD

### 2013

| | Members' fees R '000 | Other fees R '000 | Total R '000 |
|---|---|---|---|
| **TIA** | | | |
| Dr. M Ramphele | 156 | 4 | 160 |
| Dr. P Ngwenya | 155 | - | 155 |
| Ms. C Carolus | 64 | - | 64 |
| Prof. S Harrison (to 15/05/2012) | 37 | - | 37 |
| Dr. S Cornelius | 218 | - | 218 |
| Ms. H Brown | 100 | - | 100 |
| Ms. M Pyoos | 123 | - | 123 |
| Mr. I Lax | 285 | - | 285 |
| Mr. R Norton | 296 | 1 | 297 |
| Ms. F Roji | 238 | 1 | 239 |
| Ms. L Milne * (to 31/01/2013) | 96 | - | 96 |
| Mr. M van Olst * | 90 | 9 | 99 |
| **ACRO (non-executive directors)** | | | |
| Mr. D du Toit | 21 | - | 21 |
| Mr. C Whitfield | 42 | - | 42 |
| | **1,921** | **15** | **1,936** |

* *Ms. L Milne was a co-opted member of the Audit and Risk committee as well as the Investment committee. Mr. M van Olst was a co-opted member of the Investment committee.*

## 24. MEMBERS' EMOLUMENTS (CONTINUED)

### BOARD

### 2012

| | Members' fees R '000 | Other fees R '000 | Total R '000 |
|---|---|---|---|
| **TIA** | | | |
| Dr. M Ramphele | 138 | - | 138 |
| Dr. P Ngwenya | 189 | 1 | 190 |
| Ms. C Carolus | 96 | 6 | 102 |
| Prof. S Harrison | 175 | 19 | 194 |
| Dr. S Cornelius | 282 | 9 | 291 |
| Ms. H Brown | 143 | 19 | 162 |
| Ms. M Pyoos (from 01/10/2011) | 73 | - | 73 |
| Mr. I Lax | 246 | 43 | 289 |
| Mr. R Norton | 253 | 26 | 279 |
| Ms. F Roji (from 01/10/2011) | 90 | - | 90 |
| Ms. L Milne * | 108 | 26 | 134 |
| Mr. C Venter (to 06/06/2011) | - | 18 | 18 |
| Mr. M van Olst * | 38 | - | 38 |
| **ACRO (non-executive directors)** | | | |
| Mr. D du Toit | 8 | - | 8 |
| Mr. C Whitfield | 9 | - | 9 |
| **ZA Biotech (non-executive directors)** | | | |
| Mr. R Gordon | 14 | - | 14 |
| Mr. C Whitfield | 14 | - | 14 |
| | **1,876** | **167** | **2,043** |

* *Ms. L Milne is a co-opted member of the Audit and Risk committee. Mr. M van Olst was a co-opted member of the Investment committee during the financial year and attended the first meeting on 18 October 2011.*

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 25. CONTINGENCIES

### CONTINGENT LIABILITIES

### LEGAL PROCEEDINGS

Subsequent to year end the controlling entity received a claim from an affected party for damages to the value of R3 240 610 for a bid awarded. The award was retracted after consultation with the Board. Management will oppose the claim.

### ROLL OVER OF FUNDS

In terms of section 53(3) of the PFMA an entity may not accumulate surpluses unless prior written approval is obtained from National Treasury. For the 2012/2013 financial year, the controlling entity preliminary applied to retain accumulated funds. The financial impact of the final outcome of this application on the financial statements as well as the timing of the potential outflow of economic benefits could not be determined at period end.

### PROJECT FUNDING

Project funding under the Research and Development and Capacity Building Programmes in terms of funding agreements.

| | Economic entity 2013 | Economic entity 2012 | Controlling entity 2013 | Controlling entity 2012 |
|---|---|---|---|---|
| Funding agreements | 130,023 | 167,264 | 147,077 | 184,810 |

These agreements will be funded using surplus cash and funds to be allocated in the financial periods in which these agreements become payable.

### CONTINGENT ASSETS

**Economic Entity:**

ACRO is currently involved in a claim against a debtor amounting to R171 000 in respect of a breach of restraint and non-solicitation clause for the Masters Service Agreement between the company and the debtor. The debtor disputes the claim and the company has proposed a settlement in the range of R86 000 to R171 000. The matter remains unresolved at the date of issue of the financial statements. The company is also involved in a dispute with a shareholder, Batswadi Pharmaceuticals (Pty) Ltd, in respect of outstanding debt and unpaid invoices by the shareholder for services rendered by the company to the extent of R380 311. The dispute has been submitted to the Arbitration Foundation of South Africa for arbitration. The matter remains unresolved at the date of issue of the financial statements.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 25. CONTINGENCIES (CONTINUED)

**Controlling entity:**

The controlling entity invested funds to the value of R5 381 739 with Corporate Money Managers (Pty) Ltd, which was placed under curatorship in a previous period. At the date of this report no finality has been reached on claims instated against the fund.

During the financial year a number of the companies in which the controlling entity holds an equity stake were placed under liquidation or applied for final de-registration. At reporting date the controlling entity is expecting to receive a final distribution dividend from companies such as Robonica (Pty) Ltd, Cape Gourmet Mushrooms (Pty) Ltd and Elevation Biotech (Pty) Ltd. The amount and the timing of the distribution can not be measured reliably.

## 26. PRIOR PERIOD ERRORS

The substance of the funding agreement between the controlling entity and Biologicals and Vaccines Institute of SA (Pty) Ltd is a residual interest rather than a loan receivable. Furthermore, impairment was recognised incorrectly on establishment of the controlling entity in 2010/2011 and this was corrected as the residual interest is recoverable.

The correction of the error results in adjustments as follows:

### STATEMENTS OF FINANCIAL POSITION

| | Economic entity 2013 R '000 | Economic entity 2012 R '000 | Controlling entity 2013 R '000 | Controlling entity 2012 R '000 |
|---|---|---|---|---|
| Loans and receivables | - | (25,461) | - | (25,461) |
| Other financial assets | - | 40,558 | - | 40,558 |
| Opening Accumulated (Surplus)/Deficit | - | (15,097) | - | (15,097) |

## 27. COMMITMENTS

### AUTHORISED CAPITAL EXPENDITURE

| **Already contracted for but not provided for** | Economic entity 2013 R '000 | Economic entity 2012 R '000 | Controlling entity 2013 R '000 | Controlling entity 2012 R '000 |
|---|---|---|---|---|
| Property, plant and equipment | 2,361 | 642 | 2,361 | 642 |
| Intangible assets | 588 | 422 | 588 | 422 |
| | **2,949** | **1,064** | **2,949** | **1,064** |

This committed expenditure relates to office equipment and computer software and will be financed with available funds.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 27. COMMITMENTS (CONTINUED)

### OPERATING LEASES - AS LESSEE (EXPENSE)

| **Minimum lease payments due** | | | | |
|---|---|---|---|---|
| - within one year | 8,939 | 7,725 | 8,349 | 7,607 |
| - in second to fifth year inclusive | 23,293 | 17,476 | 21,036 | 17,476 |
| | **32,232** | **25,201** | **29,385** | **25,083** |

Operating lease payments represent rentals payable by the economic entity for certain of its offices. Leases are negotiated for an average term of five years and rentals are fixed for an average of three years. No contingent rent is payable.

## 28. RISK MANAGEMENT

### CAPITAL RISK MANAGEMENT

The economic entity's objectives when managing capital is to safeguard their ability to continue as a going concern in order to provide benefits to its stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The capital structure of the economic entity consists of cash and cash equivalents disclosed in note 4 and reserves as disclosed in the statements of financial position.

There are no externally imposed capital requirements and there were no changes in what the entity does to manage capital.

### FINANCIAL RISK MANAGEMENT

The economic entity's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and cash flow interest rate risk), credit risk and liquidity risk.

### FOREIGN EXCHANGE RISK

Foreign currency exposure arises from the sale of goods by entities within the group.

The economic entity does not hedge foreign exchange fluctuations.

A controlled entity, ACRO, operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar and the Euro. Foreign exchange risk arises from future commercial transactions, recognised assets and liabilities and net investment in foreign operations.

The economic entity reviews its foreign currency exposure, including commitments on an ongoing basis.

## 28. RISK MANAGEMENT (CONTINUED)

### CASH FLOW INTEREST RATE RISK

Changes in interest rates will affect the revenue from exchange transaction revenue stream as the return on investment of surplus funds is linked to the prime rate.

| Financial instrument | Current interest rate | Due in less than a year R '000 | Due in 1 to 2 years R '000 | Due in 2 to 3 years R '000 | Due in 3 to 4 years R '000 | Due after 5 years R '000 |
|---|---|---|---|---|---|---|
| Trade and other receivables - normal credit terms | -% | 7,328 | - | - | - | - |
| Cash reserves at CPD | 5.00% | 211,879 | - | - | - | - |
| Cash reserves at Standard Bank of South Africa | 4.00% | 16,833 | - | - | - | - |
| Other cash reserves at commercial banks | Various interest rates | 13,531 | - | - | - | - |

### CREDIT RISK

Potential concentrations of credit risk consist mainly of cash and cash equivalents and trade receivables. The economic entity limits its counter-party exposures from its bank accounts by investing surplus funds with well-established financial institutions with a high quality credit standing. The credit exposure to any one counter-party is managed by monitoring transactions.

Trade receivables comprise a widespread customer base. Management evaluates credit risk relating to customers on an ongoing basis. At year end 31 March 2013, the economic entity did not consider there to be any significant concentration of credit risk which had not been adequately impaired. The amount in the statement of financial position is the maximum exposure to credit risk.

Loans and receivables, investments in controlled entities, investments is associates and other investments consist mainly of funding granted to start up companies. The exposure to credit risk is managed through ongoing review of the operating results and financial position of the investee companies. Should the entity have doubt over the recoverability of the loan or the value of the investment, the loan/investment is impaired and further funding is carefully considered.

## 28. RISK MANAGEMENT (CONTINUED)

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

Financial assets exposed to credit risk at year end are as follows:

| | | | | |
|---|---|---|---|---|
| Cash and cash equivalents | 242,243 | 301,503 | 228,712 | 287,789 |
| Trade and other receivables | 5,872 | 6,163 | 2,914 | 2,804 |
| Loans and receivables | 13,735 | 12,494 | 15,235 | 13,170 |

The entity has little doubt over the recoverability of Trade and other receivables not considered to be impaired at year end.

The entity has reviewed the financial position of each of the entities where they have not impaired the loan disbursed or investment made to the investee company and based on this, management is of the opinion that at period end the amount is recoverable.

### LIQUIDITY RISK

The economic entity manages liquidity risk through the compilation and monitoring of cash flow forecasts as well as ensuring that there are adequate banking facilities.

The maturity profiles of the financial instruments are summarised as follows:

**Economic entity**

| At 31 March 2013 | Less than 1 year R '000 | Between 1 and 2 years R '000 | Between 2 and 5 years R '000 | Over 5 years R '000 |
|---|---|---|---|---|
| Trade and other payables | 23,643 | - | - | - |
| Loans from shareholders | - | - | - | 2,249 |
| Finance lease obligations | 114 | - | - | - |
| **At 31 March 2012** | **Less than 1 year R '000** | **Between 1 and 2 years R '000** | **Between 2 and 5 years R '000** | **Over 5 years R '000** |
| Trade and other payables | 12,244 | - | - | - |
| Loans from shareholders | - | - | - | 2,295 |
| Finance lease obligations | 132 | 114 | - | - |

## 28. RISK MANAGEMENT (CONTINUED)

### Controlling entity

| At 31 March 2013 | Less than 1 year R '000 | Between 1 and 2 years R '000 | Between 2 and 5 years R '000 | Over 5 years R '000 |
|---|---|---|---|---|
| Trade and other payables | 20,123 | - | - | - |
| Finance lease obligations | 114 | - | - | - |
| **At 31 March 2012** | **Less than 1 year R '000** | **Between 1 and 2 years R '000** | **Between 2 and 5 years R '000** | **Over 5 years R '000** |
| Trade and other payables | 9,042 | - | - | - |
| Finance lease obligations | 132 | 114 | - | - |

## 29. IRREGULAR EXPENDITURE

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 R '000 | 2012 R '000 | 2013 R '000 | 2012 R '000 |
| Opening balance | 4,423 | - | - | - |
| Irregular expenditure incurred by controlled entities | 3,529 | 4,423 | - | - |
| Irregular expenditure incurred by controlling entity | 2,662 | 26,263 | 2,662 | 26,263 |
| Less: Amount condoned by the Board | - | (26,263) | - | (26,263) |
| | **10,614** | **4,423** | **2,662** | **-** |

### Economic entity:

The 13 controlled entities were inherited when the trusts were combined to form TIA. The entities were not set up to comply with the detail requirements of Treasury Regulation 16A6.1. Management will continue to investigate the legislative compliance requirements for controlled entities with National Treasury.

### Controlling entity:

Treasury Regulation 16A6.1 states that the procurement of goods and services should be through way of quotation, using the Preferential Point system for amounts exceeding R30 000 or through a bidding process where the amount exceeds R500 000. Some expenditure incurred did not follow these requirements. The result of an investigation indicated that no one could be held liable for these transgressions. Controls were put in place to prevent further irregular expenditure.

| | Economic entity | | Controlling entity | |
|---|---|---|---|---|
| | 2013 | 2012 | 2013 | 2012 |
| | R '000 | R '000 | R '000 | R '000 |

## 30. FRUITLESS AND WASTEFUL EXPENDITURE

| | | | | |
|---|---|---|---|---|
| Opening balance | 68 | - | - | - |
| Fruitless and wasteful expenses incurred by controlled entities | 196 | 68 | - | - |
| Fruitless and wasteful expenses incurred by controlling entity | 371 | 57 | 371 | 57 |
| Less: Amounts condoned by the Board | - | (57) | - | (57) |
| | **635** | **68** | **371** | **-** |

**Economic entity:**

The nature of the expenses that could have been avoided are interest and penalties on PAYE for 2 controlled entities which were subsequently de-registered.

**Controlling entity:**

A significant portion of the R371 000 disclosed relate to interest and penalties due to SARS for a short payment of PAYE in 2010, when the 7 entities were amalgamated. The result of an investigation indicated that no one could be held liable for these transgressions. No late payments were made in the 2012/2013 financial year.

## 31. LOSSES THROUGH CRIMINAL CONDUCT

| | | | | |
|---|---|---|---|---|
| Losses through criminal conduct | 39 | - | 39 | - |

**Controlling entity:**

Losses relate to laptops stolen from its employees. Insurance claims were lodged to minimise the losses.

## 32. BUDGET DIFFERENCES

Material differences between budget and actual amounts:

Due to the controlling entity constituting 99% of income and expenses of the consolidated results, the reasons for variances below only relate to the controlling entity.

32.1 This difference is due to the recognition of conditional grant income of R24 062 000, matching the expenses incurred in the financial year (refer expenditure section of this statement).

32.2 Other income, interest received and dividends received were not budgeted for in the 2012/2013 financial year.

32.3 For budget purposes investment related salaries are budgeted as part of the total project funding expenditure and therefore does not form part of the MTEF staff budget. When this amount (R33 898 000) is deducted from the actual expense, the controlling entity underspent on salaries, mainly due to high staff turnover. The additional allocation of R1 129 000 was earmarked to enable the controlling entity to retain skilled staff.

32.4 Depreciation and amortisation amount for the 2012/2013 financial year was under-budgeted.

32.5 Impairment losses were not included in the budget initially submitted, as the controlling entity evaluates the performance of its investment on an annual basis, the expected impairment cannot be determined before this.

32.6 National Treasury approved the roll-over of R288 million cash balance for the 2011/2012 financial year. Management, with the consent of the Board, utilised the cash surplus to fund the overspend on certain project funding related expenditure. Examples of expenditure are costs incurred for launches of the Youth Technology Innovation Fund, the Animal Health Cluster and the Electric Vehicle programme.

# ABBREVIATIONS

| | |
|---|---|
| ACTS | Automotive Components Technology Station (now eNtsa) |
| ARC | Agricultural Research Council |
| ATS | Agri-Food Processing Technology Station |
| BEE | Black Economic Empowerment |
| BPME | Business Performance Monitoring and Evaluation |
| CDC | Coega Development Corporation |
| CDTI | Center for the Promotion of Industrial Innovation |
| CE | Conformité Européenne |
| CEO | Chief Executive Officer |
| CIPC | Companies and Intellectual Property Commission |
| CPGR | Centre for Proteomics and Genomic Research |
| CPUT | Cape Peninsula University of Technology |
| CRPM | Centre of Rapid Prototyping and Manufacturing |
| CSIR | Council Scientific and Industrial Research |
| CTDI | Spanish Centre for the Development of Industrial Technology |
| CTP | Committee of Technikon Principal |
| CUT | Central University of Technology |
| DALA | Department of Agriculture & Land Administration |
| DBSA | Development Bank of South Africa |
| DCTS | Downstream Chemicals Technology Station |
| DED | Department of Economic Development |
| DEDP | Department of Economic Development & Planning |
| DNA | Deoxyribonucleic acid |
| DoE | Department of Education |
| DoL | Department of Labour |
| DST | Department of Science and Technology |
| DUT | Durban University of Technology |
| EC | Eastern Cape |
| ECDC | Eastern Cape Economic Development Corporation |
| EWP | Employee Wellness Programme |
| ExCo | Executive Committee |
| FDI | Financial Development Institutions |
| FET | Further Education and Training |
| FMD | Foot and Mouth Disease |
| FY | Financial Year |
| GAAP | Generally Acceptable Accounting Practice |
| GEP | Gauteng Enterprise Propeller |
| GP | Gauteng Province |
| GRAP | Generally Recognised Accounting Practice |
| GTZ | German Technical Cooperation |
| GW | Gigawatt |
| HCD | Human Capital Development |
| HEI | Higher Education Institutions |
| HEIs | Higher Education Institutions |
| HESA | Higher Education of South Africa |
| HIV | Human immunodeficiency virus |
| HLA | Human Leukocyte Antigen |

| | |
|---|---|
| HSRC | Human Sciences Research Council |
| IAT | Institute for Advanced Tooling |
| IAT - WSU | Institute of Advanced Tooling in Walter Sisulu University |
| IAT-TUT | Institute Of Advanced Tooling in Tshwane University Of Technology |
| IAT-WC | Institute Of Advanced Tooling in University of Stellenbosch |
| IDC | Industrial Development Cooperation |
| IDP | Idea Development Programme |
| IGTR | Indo – German Tool room |
| ISD | Innovation Skills Development |
| KM | Knowledge Management |
| KPA | Key Performance Area |
| KPI | Key Performance Indicator |
| LATS | Limpopo Agrofood Technology Station |
| LEDA | Limpopo Economic Development Agency |
| M-SAT | Massachusetts-South Africa Technology Fellowship Programme |
| M&PTVaal | Technology Station in Materials and Processing Technology |
| MC | Management Committee |
| MCTS | Metal Casting Technology Station |
| MEGA | Mpumalanga Economic Growth Agency |
| MISTI | MIT International Science and Technology Initiatives |
| MoA | Memorandum of Agreement |
| MoU | Memorandum of Understanding |
| MRC | Medical Research Council |
| MSI | Middleburg Stainless Steel Initiative |
| MTEF | Medium Term Expenditure Framework |
| MUT | Mangosuthu University of Technology |
| NMMU | Nelson Mandela Metropolitan University |
| NQF | National Qualification Framework |
| NRF | National Research Foundation |
| NSI | National System of Innovation |
| NVC | New Venture Creation |
| OBP | Onderstepoort Biological Products |
| PBR | Plant Breeders Rights |
| PDI | Previous Disadvantage Individuals |
| PDTS | Product Development Technology Station |
| PFMA | Public Finance Management Act of 1999 |
| PGWC | Provincial Government of the Western Cape |
| PMU | Project Management Unit |
| PPP | Public Private Partnership |
| PSI | Provincial System of Innovation |
| QMS | Quality Management System |
| R&D | Research and Development |
| RALIS | Rapid Appraisal of Local Innovation Systems |
| SABS | South African Bureau Of Standards |
| SADC | Southern African Development Community |

| | |
|---|---|
| SAIF | South African Institute of Foundrymen |
| SASRI | South African Sugar Research Institute |
| SC | Science Councils |
| SCs | Science Councils |
| SEDA | Small Enterprise Development Agency |
| SEI | Summer Engineering Institute |
| SETA | Skills Education Training Authorities |
| SETA | Sector Education and Training Authority |
| SME | Small and Medium Enterprises |
| SMME | Small, Medium and Micro-sized Enterprises |
| SMT | Surface-Mount Technology |
| SPII | Support Programme for Industrial Innovation |
| SSI | Sectoral System of Innovation |
| TAF | Technical Advisory Forum |
| TAFTIE | The European Network of Innovation Agencies |
| TASA | Tooling Association of South Africa |
| TDM | Tool and Die Making |
| TIA | Technology Innovation Agency |
| TIH | The Innovation Hub in Gauteng |
| ToR | Terms of Reference |
| TS | Technology Stations |
| TS R&MP | Technology Station in Reinforced & Moulded Plastics |
| TSC-Man | Technology Station in Chemicals based at Mangosuthu Technikon |
| TSC-TUT | Technology Station in Chemicals - based at Tshwane University of Technology |
| TSCT | Technology Station in Clothing and Textile |
| TSE | Technology Station in Electronics |
| TSIS | Technology Station Information System |
| TSM&PT | Technology Station in Material and Processing Technologies |
| TSMC | Technology Station in Metal Casting |
| TSP | Technology Stations Programme |
| TSPD | Technology Station in Product Development |
| TUT | Tshwane University of Technology |
| UCT | University of Cape Town |
| UJ | University of Johannesburg |
| UKZN | University of KwaZulu Natal |
| UWC | University of Western Cape |
| VC | Venture Capital |
| VC | Vice Chancellor |
| VUT | Vaal University of Technology |
| WC | Western Cape |
| Wits | The University of the Witwatersrand |
| YTIF | Youth Technology Innovation Fund |

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