Presentation to the Portfolio Committee
15 October 2014
Outline

1. TIA Overview
2. Bridging the Innovation Chasm
3. Operational Performance
4. Financial Performance
‘Innovation is the primary driver of technological growth and drives higher living standards.... and brings about economic growth, we propose a larger, more effective innovation system, closely aligned with firms’

The National Development Plan, 2012
A Country Vision: 2030
# Our Mandate, Vision and Mission

<table>
<thead>
<tr>
<th><strong>Mandate</strong></th>
<th>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 innovation - TIA ACT 2008 (Act No 26 of 2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision</strong></td>
<td>To be a world class technology innovation agency that stimulates and supports technological innovation to improve the quality of life for all South Africans</td>
</tr>
<tr>
<td><strong>Mission</strong></td>
<td>To facilitate the translation of South Africa’s knowledge resources into sustainable opportunities</td>
</tr>
</tbody>
</table>
Our Purpose

- TIA was established to bridge the ‘innovation chasm’
- The ‘Chasm’ represents the gap between scientific research activities that yield new ideas and the successful introduction of products and services emanating from those ideas into the market which ultimately benefit the broader society
- A robust innovation value chain which regularly delivers new and improved products and services is essential for long-term economic growth and provides competitive advantage on people rather than on finite physical resources
TIA’s Positioning along the Innovation Value Chain

Focus of TIA financial and non-financial offerings:
Across the **innovation chasm**, operating with the required flexibility along the innovation value chain through mobilising and leveraging national, regional and international partnerships.
TIA’s ‘Ecosystem’

TIA aims to

– provide for (in addition to funds and technological competencies), specific value-adding services addressing the specifics needs of its stakeholders
– develop and implement a targeted stakeholder engagement plan

• The Innovator needs - expertise, finance and non-financial services, supporting infrastructure, and enabling environment
• The Investor needs - business acumen, sound governance, thought leadership, value for money, and de-risked investment opportunities
• The Citizen needs - socio-economic impact, and opportunities
Risk Funding Schemes
Supporting Programmes

• Technology Innovation Programmes (TIPs) – collaborative programme that aims to connect between stakeholders along the innovation chain
• Technology Stations and Platforms (TSPP)
• Youth Technology Innovation Programme (YTIP)
• Innovation Skills Development (ISD)
TIA’s Role, Funding Schemes and Support Programmes

- **TIA Role**: Connector, Funder, Facilitator
- **Funding Mechanism**: Seed Fund, Technology Development Fund, Commercialisation Support Fund
- **Funding Recipient**: HEIs and Science Councils, SMMEs & Entrepreneurs
- **Programmes**: Technology Innovation Programmes, Youth Technology Innovation Programme, Technology Stations and Platforms Programme
2. Bridging the Innovation Chasm
TIA’s Role

TIA plays the following roles within the Innovation Chain

• **A connector** - catalysing partnerships between SMMEs, industries, HEIs and SCs to develop an enabling environment and supporting sector specific innovations for global competitiveness (TRL3, Seed Funds)

• **An active funder** - providing risk funding and support for innovators (progress towards market entry; TRL 4-7, TDF)

• **A facilitator** - attracting and facilitating late stage funding for commercialisation (TRL 8, CSF)

• **A service provider** - reducing barriers of access to high-end skills and equipment for innovators (Technology Stations and Platforms)
Connector Role (1)

Technology Innovation Programmes

- **Animal Health Innovation Programme**
  - Revitalising animal vaccine manufacturing (R95m)

- **Uyilo E-Mobility Programme**
  - Development and commercialisation of electro-mobility technologies and scarce skills to support the use of electric vehicles (R7.4m)
Technology Innovation Programmes

• Seed Funds
  – The aim of this fund is to assist HEIs to bridge the gap between research and commercialisation
  – A total applications for 108 projects from 18 universities from six provinces were received
  – Due to a set funding limit (according to budget) only half of the requests were supported to an amount of about R25m, during 2013/14
Active Funder Role (1)

Project Highlights

• Development of a continuous seed preparation system for sugarcane processing (R5.7m)
  – an energy efficient system that will result in reduced production costs
  – A Centre of Competence for sugarcane research was established

• Stellenbosch Wind Energy Technology (SWET) (R11.1 m)
  – Two working prototypes were successfully installed
  – Cost reduction of 35% and production of over 5000 kW of energy were achieved
  – The aim is to triple the above
Active Funder Role (2)

Project Highlights

• **Kapa Biosystems** - advanced reagents and kits of the next-generation DNA sequencing (R24m)
  – Improving South Africa’s economic growth through cutting-edge genomic biotechnology
  – Kapa employs 75 people; both R&D and Manufacturing located in RSA; export market is mainly USA

• **Coalgae™** - Turning coal waste into clean energy (R24.4m)
  – A patented process for designing and producing photo bioreactors to cost-effectively grow micro-algae
  – The micro-algae agglomerate with coal fines to produce coal briquettes
Facilitator Role (1)

- **PST Sensors**
  - This project, originated from UCT, sets out to develop a low-cost power source as a technical proof of concept for a printed 2W photovoltaic (PV) module produced on an A4 paper sheet.
  - PST Sensors is the only company with proven technology to print silicon semiconductors on any material including paper (14 patent families).
  - The company attracted commercial interest and already has a number of initial short-term joint development agreements.

- **Photovoltaic Intellectual Property (PTIP)**
  - The company focuses on the development of new material and techniques for the production of thin solar devices.
  - A second round follow-up funding of R120m was raised.
  - In 2013, IDC and UJ further invested in the company.
  - PTIP can fabricate modules of 7200 cm².
Facilitator Role (2)

• Future Fynbos
  – This breeding company focuses on the selection and breeding of indigenous fynbos for cut flower and pot plant markets
  – During 2013/14 the company shipped their first commercial harvest (with 600 355 units sold locally and 10 000 in the EU)
  – TIA invested R482 000, allowing the company to protect its IP and register a trademark and plant breeder’s rights in South Africa and the EU
Service Provider Role (1)

Technology Platforms Programme

• The programme aims to advance innovation in the bio-sciences
• The programme is an instrument in ensuring that public and private institutions and companies have access to world-class equipment, research facilities and cutting-edge research expertise
• The Platforms provide resources that otherwise would be too expensive for a single entity
Service Provider Role (2)
Technology Platforms Programmes

• **H3-D**
  - The first modern integrated drug discovery and development centre (UCT)
  - Gate Foundation awarded a multiyear R50m grant to the centre for discovery work addressing Malaria and TB (January 2014)

• **Centre for Proteomic and Genomic Research (CPGR)**
  - Non-profit organisation (Cape Town based)
  - Diffusing key life sciences knowledge through state of the art ‘omic’ services

• **Metagenomics**
  - This centre (UFS) focuses on the discovery and exploitation of novel genes and their products
  - Example: bioreactors for the remediation of acid mine drainage

• **Metabolomics**
  - This platform (NWU based) focuses on diagnostic services for various metabolic disorders and other diseases (TB, meningitis and fibromyalgia)

• **Bioprocessing**
  - This KZN based centre transfers and supports the field of biotechnology (monoclonal antibodies, enzyme production etc.)

• **Biosafety South Africa**
  - This Cape Town based centre is a thought leader and a premier resource for biosafety and genetically modified organism risk assessment issues
Service Provider Role (3)
Technology Stations Programme

- The Programme is aimed at servicing the specific technological needs of manufacturers in the SMME sector
- There are 18 Technology Stations including three Institutes for Advance Tooling
- The Stations are hosted by various universities countrywide
- During 2013/14 a total of 1904 SMMEs were assisted
- A total of 550 products/services have been developed
Service Provider Role (4)

Technology Stations Programme - Highlights

• **Nicky Drive**
  – The first South African designed and manufactured driving simulator of its kind
  – The *Adaptronics Manufacturing Technology Laboratory* worked with CPUT, and Nicky Drive to develop a driving simulator to assist physically challenged individuals learning to drive
  – The project was elected for Cape Town’s successful World Design Capital 2014 Bid
Service Provider Role (5)

Technology Stations Programme - Highlights

- **Dark Icon**
  - This SMME was supported by the Clothing and Textile Technology Station (CPUT)
  - CAD patterns enabled the SMME to produce garments efficiently improving their competitiveness and long-term sustainability
  - The support of TIA allowed this SMME to compete and win a contract to supply SAB Miller with T-Shirts
Innovation Support Programmes (1)

Innovation Skills Development Programme

- The Programme supports fundamental business skills associated with new innovation development, examples are:
  - Chuma Commercialisation Internship Programme
  - DST Industry Support Technology Station Internship Programme
  - EWSETA Industry Internship Programme
Innovation Support Programmes (2)

• **Youth Technology Innovation Programme (YTIP)**
  
  – YTIP assists young innovators through funding, mentorship and business support
  
  – The fund promotes and stimulates a culture of technology innovation and entrepreneurship among young South Africans
  
  – During 2013/14, 43 youth projects have benefited (R15.6m)
  
  – A young entrepreneur (28 years old) won R175 000 for ‘Most Innovative Business’ at the ‘2013 Free State enter-PRIZE Job Creation Challenge’

Saggitarious Serpentarious is a device that monitors the power consumption of a 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 detect that the prepaid meter has been bridged or tampered with. Once tempering is detected, the system will shut down the electricity connection and wirelessly send the details and error codes to the municipality.
2. Operational Performance
Achievements since 2010

• R1,2 bn disbursed to the system
• R564m leveraged through third party funds
• Over 6 800 SMMEs supported through the Technology Stations Programme
• 98 products, processes and services developed
• 18 investments commercialised
• 500 interns trained
### Overall Business Performance

<table>
<thead>
<tr>
<th>Strategic Objective</th>
<th>KPIs Achieved (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO 1. To stimulate the development and demonstration of technology based products, processes and services</td>
<td>71</td>
</tr>
<tr>
<td>SO 2: To support the commercialisation of technology innovations</td>
<td>100</td>
</tr>
<tr>
<td>SO 4: To develop an enabling internal environment for TIA to successfully execute its strategy</td>
<td>80</td>
</tr>
<tr>
<td>SO 5: To facilitate the development of innovation skills to support technology innovation and commercialisation</td>
<td>100</td>
</tr>
<tr>
<td><strong>Overall KPIs Achieved</strong></td>
<td><strong>86</strong></td>
</tr>
</tbody>
</table>

**Strategic objectives discontinued:**

SO 3. To develop an enabling environment for technology innovation and commercialisation in South Africa

SO 6. To become a schedule 3B entity in terms of the PFMA
3. Financial Performance
Audit

- TIA received an un-qualified audit opinion for the third year in a row
- Audit findings reduced significantly:

<table>
<thead>
<tr>
<th></th>
<th>2013/14</th>
<th>2012/13</th>
<th>2011/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of audit findings</td>
<td>16</td>
<td>33</td>
<td>56</td>
</tr>
<tr>
<td>Matters effecting the audit report</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Administrative matters</td>
<td>8</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Other important matters</td>
<td>7</td>
<td>6</td>
<td>47</td>
</tr>
</tbody>
</table>

15 October 2014
Annual Report 2013/14
# Financial Performance

## REVENUE GENERATED

<table>
<thead>
<tr>
<th></th>
<th>2013/14 R’m</th>
<th>2012/13 R’m</th>
<th>2011/12 R’m</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTEF Allocation</td>
<td>481,1</td>
<td>456,4</td>
<td>442,7</td>
</tr>
<tr>
<td>Specific contracted by DST</td>
<td>62,0</td>
<td>24,0</td>
<td>44,2</td>
</tr>
<tr>
<td>Interest and other income</td>
<td>25,6</td>
<td>41,7</td>
<td>16,9</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>568,7</strong></td>
<td><strong>522,1</strong></td>
<td><strong>503,8</strong></td>
</tr>
</tbody>
</table>
## EXPENDITURE INCURRED

<table>
<thead>
<tr>
<th></th>
<th>2013/14 R’m</th>
<th>2012/13 R’m</th>
<th>2011/12 R’m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project funding</td>
<td>345,4</td>
<td>324,9</td>
<td>223,1</td>
</tr>
<tr>
<td>Impairments of investments</td>
<td>15,8</td>
<td>19,7</td>
<td>61,5</td>
</tr>
<tr>
<td>Non cash items (incl. depreciation)</td>
<td>10,7</td>
<td>10,7</td>
<td>8,8</td>
</tr>
<tr>
<td>Admin costs</td>
<td>213,7</td>
<td>220,5</td>
<td>193,7</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>585,6</td>
<td>575,8</td>
<td>478,3</td>
</tr>
<tr>
<td>Admin cost %</td>
<td>38%</td>
<td>40%</td>
<td>42%</td>
</tr>
</tbody>
</table>
# Financial Position

## ASSETS

<table>
<thead>
<tr>
<th></th>
<th>2013/14 R’m</th>
<th>2012/13 R’m</th>
<th>2011/12 R’m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Assets</td>
<td>170,9</td>
<td>233,1</td>
<td>291,5</td>
</tr>
<tr>
<td>Non-Current Assets</td>
<td>110,7</td>
<td>96,9</td>
<td>96,4</td>
</tr>
<tr>
<td>Net Assets: opening balance</td>
<td>270,0</td>
<td>323,8</td>
<td>384,7</td>
</tr>
<tr>
<td>Surplus / (Deficit)</td>
<td>(16,9)</td>
<td>(53,8)</td>
<td>60,9</td>
</tr>
<tr>
<td>Net Assets: Closing balance</td>
<td>253,1</td>
<td>270,0</td>
<td>323,8</td>
</tr>
</tbody>
</table>
Governance and Management

TIA’s Board

Executive Team
Thank you for your attention