The Technology Innovation Agency (TIA): Mobilising resources for R&D led growth and development

Presentation to the NEPAD-OECD Africa Investment Initiative
High-level meeting
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Presented by:
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CEO (acting): TIA
1. TIA Background and Context
   • Policy Impetus
   • Bridging the “Chasm”
   • Funding focus and core functions

2. TIA Core Capabilities
   • Tech Development and diffusion
   • SMME support

3. Way forward
   • Migration and full operationalisation
NSI Challenges:
• Existence of innovation “Chasm”
• Fragmentation of instruments
•窄定的创新定义

Explicit reference to Foundation for Technological Innovation (FTI)

The “Knowledge Economy”:
• Knowledge = basic form of capital
• Economic growth driven by innovation
OECD Review: Key Findings

- A long term **planning Framework** is needed
- Human Capital for S&T is sub-optimal
- The governance framework needs more vertical and horizontal integration
- There is an **innovation chasm** with an insufficient number of research **products directly influencing the real economy**
- Science, technology and innovation for social impact and poverty alleviation should be more pronounced and visible
Bridging the “Chasm” through local technology commercialisation and diffusion

OVERSEAS TECHNOLOGY SOURCES
Research  Development  Production

Technology Transfer

Value added local technology Products & services

Innovation “Chasm”

Local Knowledge

Research  Development  Manufacturing
DST 10 Year Innovation Plan (2008 to 2018)

- National policy priorities in terms of 5 “Grand Challenges” (i.e. Energy, Space, Climate Change, Human and Social dynamics, Farmer-to-Pharma)

Human Capital Strategy focused on development and expansion of Innovation skills (incl. technical and business)

Increased momentum on fiscal incentives
- R&D tax incentives

Establishment: Technology Innovation Agency (TIA)
- Centres of Competence (CoC)
- Regional innovation system
TIA geared towards addressing “market failure” and building bridges and institutional linkages along the innovation value chain:

The TIA will focus its financial and non-financial offerings along the innovation chasm, and will operate with the required flexibility across the innovation value chain through mobilising and leveraging national, regional and international partnerships.
The TIA Act [No 26 of 2008]:

“The object of the Agency 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”
The TIA Vision is to be:

“A world class innovation agency that supports and enables technological innovation to achieve socio-economic benefits for South Africa through leveraging strategic partnerships”
The TIA Mission is to enhance South Africa’s global competitiveness and to deliver socio-economic value through technological innovation across sectors of the economy by means of the following:

– Appropriately structured financial and non-financial interventions
– Development and maintenance of human capacity for innovation
– Building a culture of innovation
– Leveraging local and international partnerships
National objectives:

The TIA is tasked to:

• Coordinate and leverage support, particularly through the creation of strategic local and international partnerships to increase capital inflows for technological development and technology transfer in SA

• Lead to new products and services on the market

• Grow the number of technology-based start-up companies

• Support key industry sectors that are better able to utilize local and international technology innovation to enhance their global competitiveness, and a growing positive impact on the SA economy
• **Innovation financing** (incl. seed, first and second stage funding for the commercialisation of technology based products and services) Promoting **domestic and foreign investment linkages**

• **Technology development** (incl. technical and advisory services relating to nurturing of technologies and implementation). **Technological and enterprise expertise** (e.g. SMME support)

• **Capacity building** (incl. institutional and human capital development)
**TIA Functions:**

- Technology development and commercialisation funding
- Capacity building for technology innovation
- Technology Nursery [technology & technology based emerging businesses incubation platform]
- Advocacy [creating an *Innovation culture*]
- Facilitating collaboration for technology development and innovation incl. CoCs and supporting in-bound Technology Transfer

Enhancing SA’s global competitiveness and derive maximum Socio/Econ Impact
Key factors guiding the proposed functional model:

• Capacity for thorough *due diligence* – technical (S&T, IP), and business (market, financial) capabilities

• Executing a comprehensive set of *funding* instruments (grant/loans/equity with partners where required)

• *Technology Nurseries* – support services, including advisory, technology incubation & technology based SMME support

• Comprehensive set of interventions (e.g. CoCs, inbound tech transfer, including technology transfer)
Centres of Competence (CoCs):

CoC strategic policy objectives:

• Providing formal, physical or virtual platforms upon which to establish collaborative R&D led industrial development partnerships between government, industry, academia and public research institutions

• Building the appropriate level of human capital for conducting high-technology R&D, the effective management of IP, product development, manufacturing and commercialisation
While the entities have a significant geographic footprint across the country, there is generally a limited service delivery footprint. In addition, our investigation did not reveal a mature channel mix across the entities:

- Service offerings are delivered predominantly through a brick-and-mortar infrastructure.
- There is a strong need to also move towards electronic channels in order to improve access.
- The channel mix needs to be leveraged in a manner that reduces the costs of interaction, and ultimately operating costs.
- Most entities have access points in the economically prominent provinces and are centered in major urban areas impairing footprint across all provinces.

A mature channel mix to support the service delivery footprint is a strategic imperative to improve access to TIA service offerings and ensure closer oversight and support of funded businesses.
Two TIA components:

1. **TIA central model:**
   - National strategy setting, planning oversight & governance (incl. Risk Management), regional support & coordination of all TIA functions
   - Funding approval
   - Executive portfolio management of investments

2. **TIA regional model [strategy execution & implementation]:**
   - Gauteng; EC; KZN; WC; FS & NC; NW Limpopo & MP
   - Corporate strategy execution, regional partnerships and linkages
   - Technology Nurseries: client interface and advisory services
   - Identify & assess opportunities, recommend to central for funding, manage funded projects
Way forward: Board appointed April ‘09

Dr Mamphela Ramphele (Chair)

Dr Patrick Ngwenya (Deputy Chair)

Ms Cheryl Carolus
Prof. Susan Harrison
Dr Steven Cornelius
Ms Helen Brown
Mr Craig Venter
Mr Ilan Lax
Mr Ross Norton

Dr Nhlanhla Msomi (Member of Board & Acting CEO)
Way forward:

– Integration of 7 existing institutions:

– Finalisation of comprehensive suite of operational and other policies

– Appointment of permanent CEO

– Finalisation of funding programmes and instruments

– Maintain existing funding initiatives
Thank You!