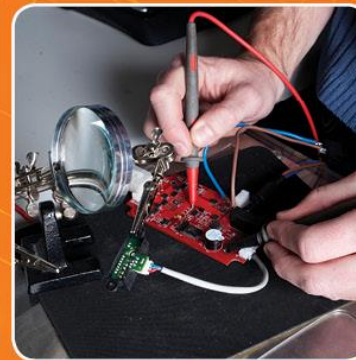


ANNUAL PERFORMANCE PLAN

2014 - 2015

Presentation to the Portfolio Committee
31 July 2014



Prof Rivka Kfir
Interim CEO

‘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

Mandate

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)

Vision

To be a world class technology innovation agency that stimulates and supports technological innovation to improve the quality of life for all South Africans

Mission

To facilitate the translation of South Africa's knowledge resources into sustainable opportunities

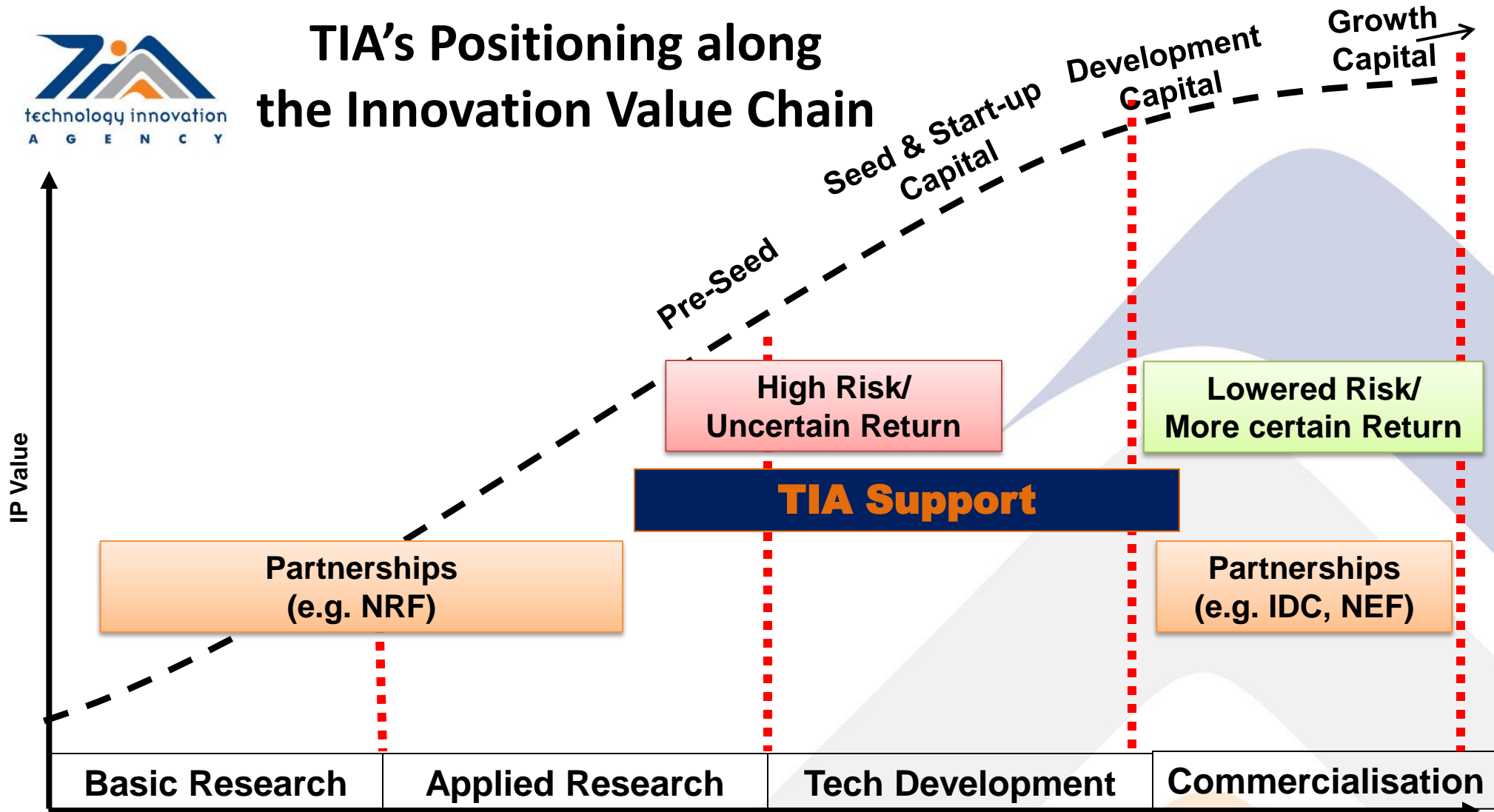
Our Purpose

- 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***

The Context – Change in Strategic Focus

- The outcomes of the DST Ministerial Review
- The International Benchmarking Study
- The policies, strategic objectives and views of the Agency's shareholder (Ten Year Innovation Plan and the Grand Challenges)
- NSI – current reality
- The findings of a customer survey
- Government policies and priorities e.g. the Medium Term Strategic Framework (MTSF), Industrial Policy Action Plan (IPAP), the New Growth Plan (NGP) and the National Development Plan(NDP)

TIA's Positioning along the Innovation Value Chain

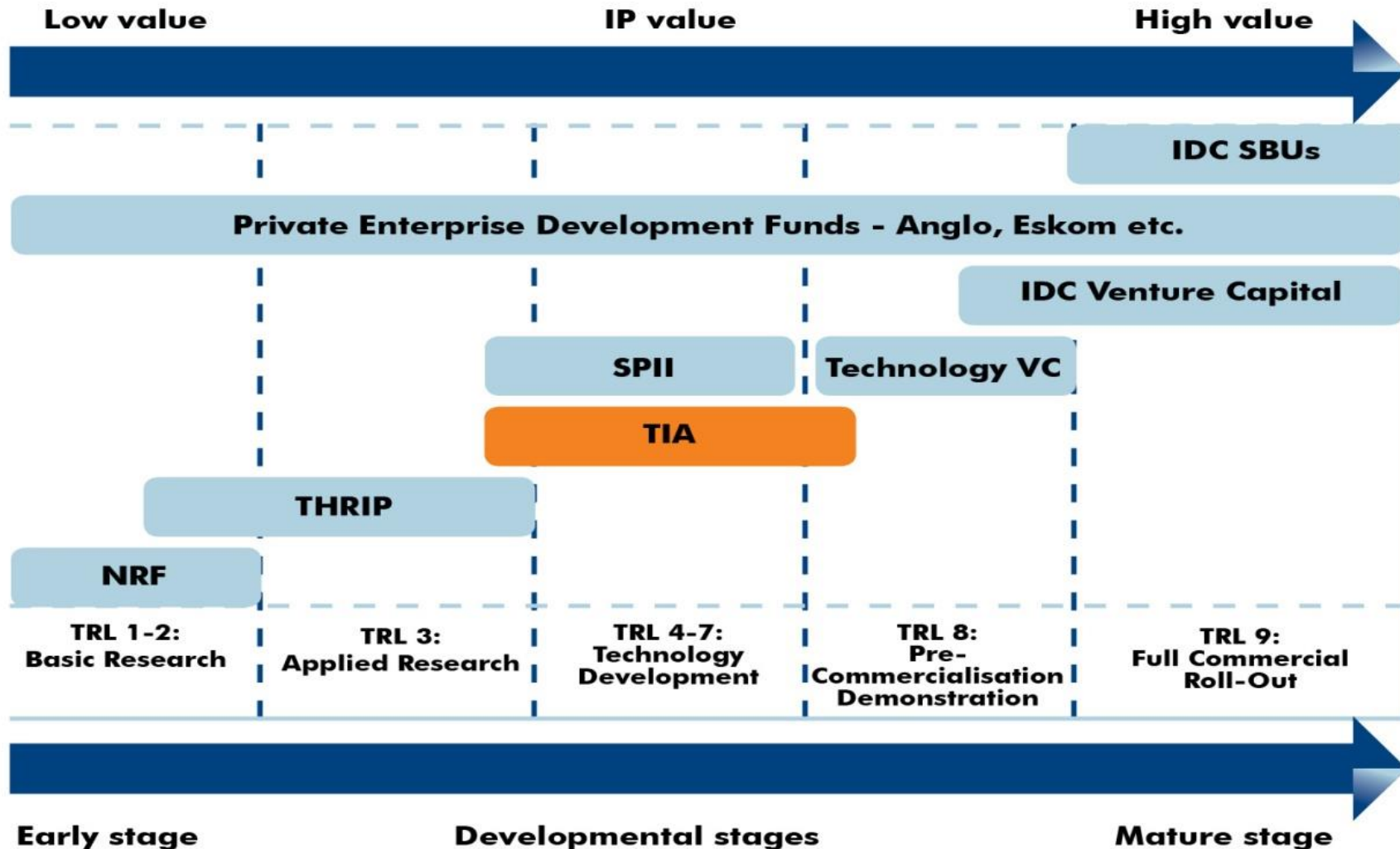


Focus of TIA financial and non-financial offerings:

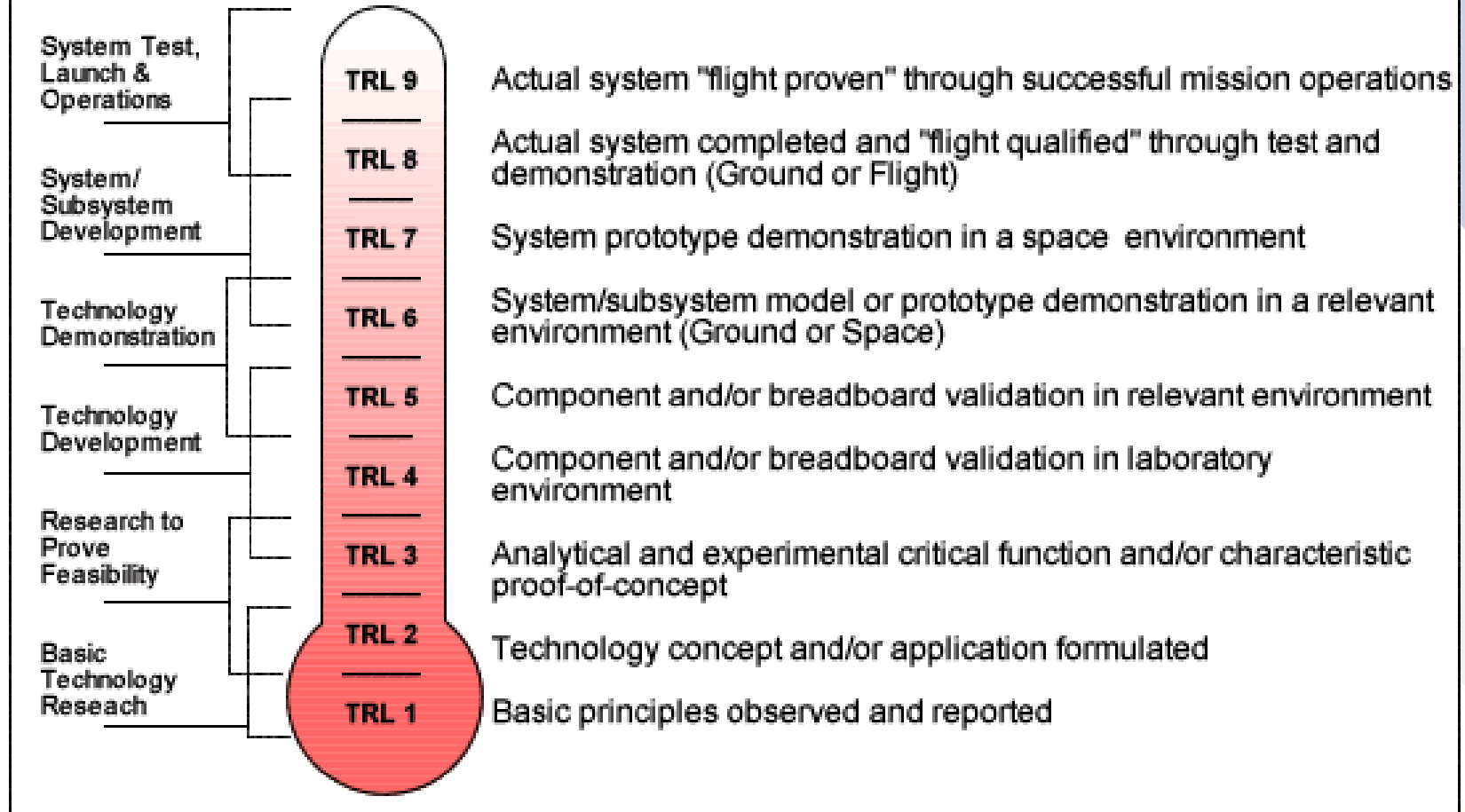
Across the *innovation chasm*, operating with the required flexibility along the innovation value chain through mobilising and leveraging national, regional and international partnerships

The South African Innovation Funding Landscape

INNOVATION FUNDING LANDSCAPE



Technology Readiness Levels (TRLs)



TIA's 'Ecosystem'



TIA aims to

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

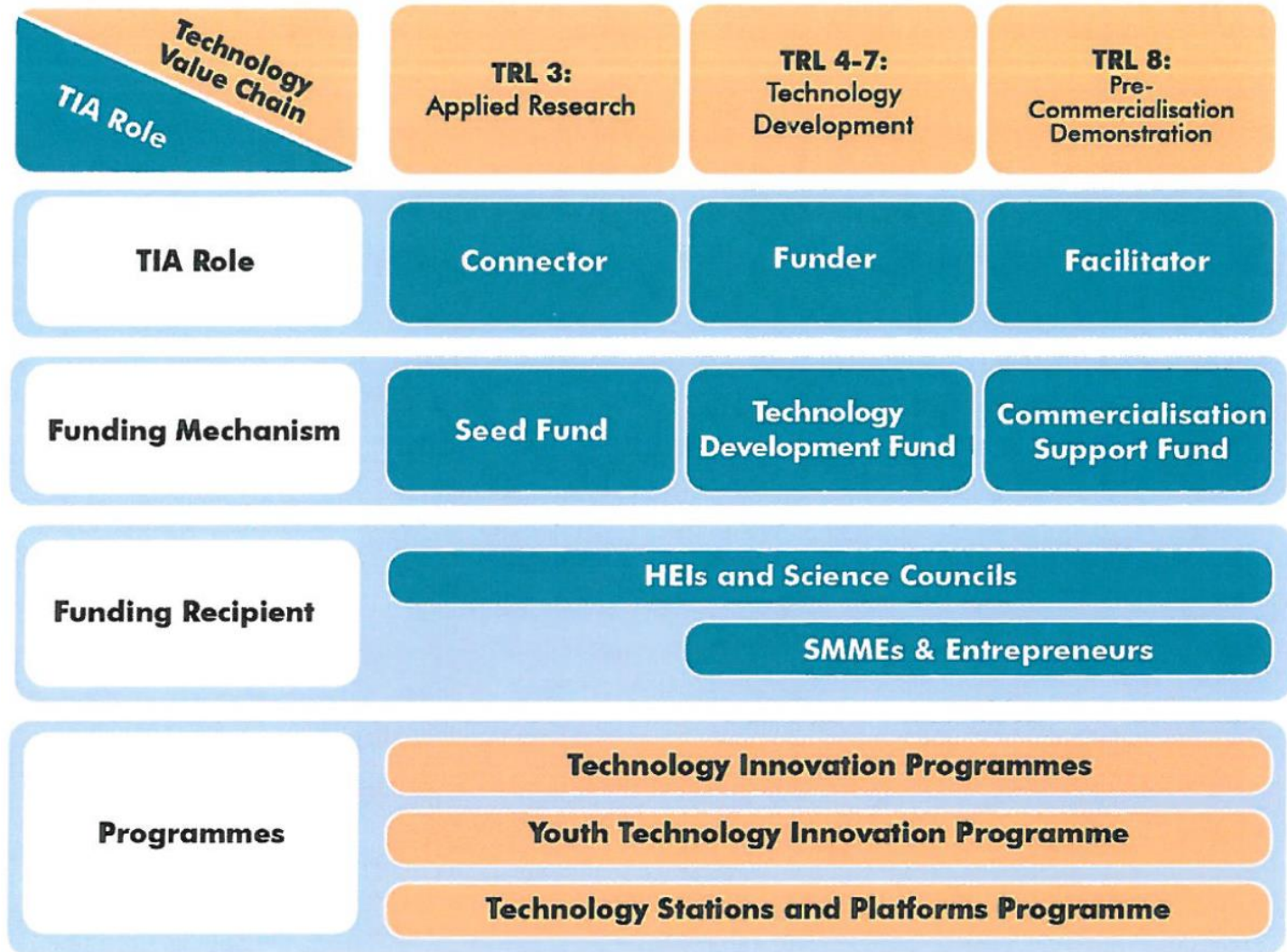
- The **Innovator** needs - expertise, finance and non-financial services, supporting infrastructure, and enabling environment
- The **Investor** needs - business acumen, sound governance, thought leadership, value for money, and de-risked investment opportunities
- The **Citizen** needs - socio-economic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

TIA's Role

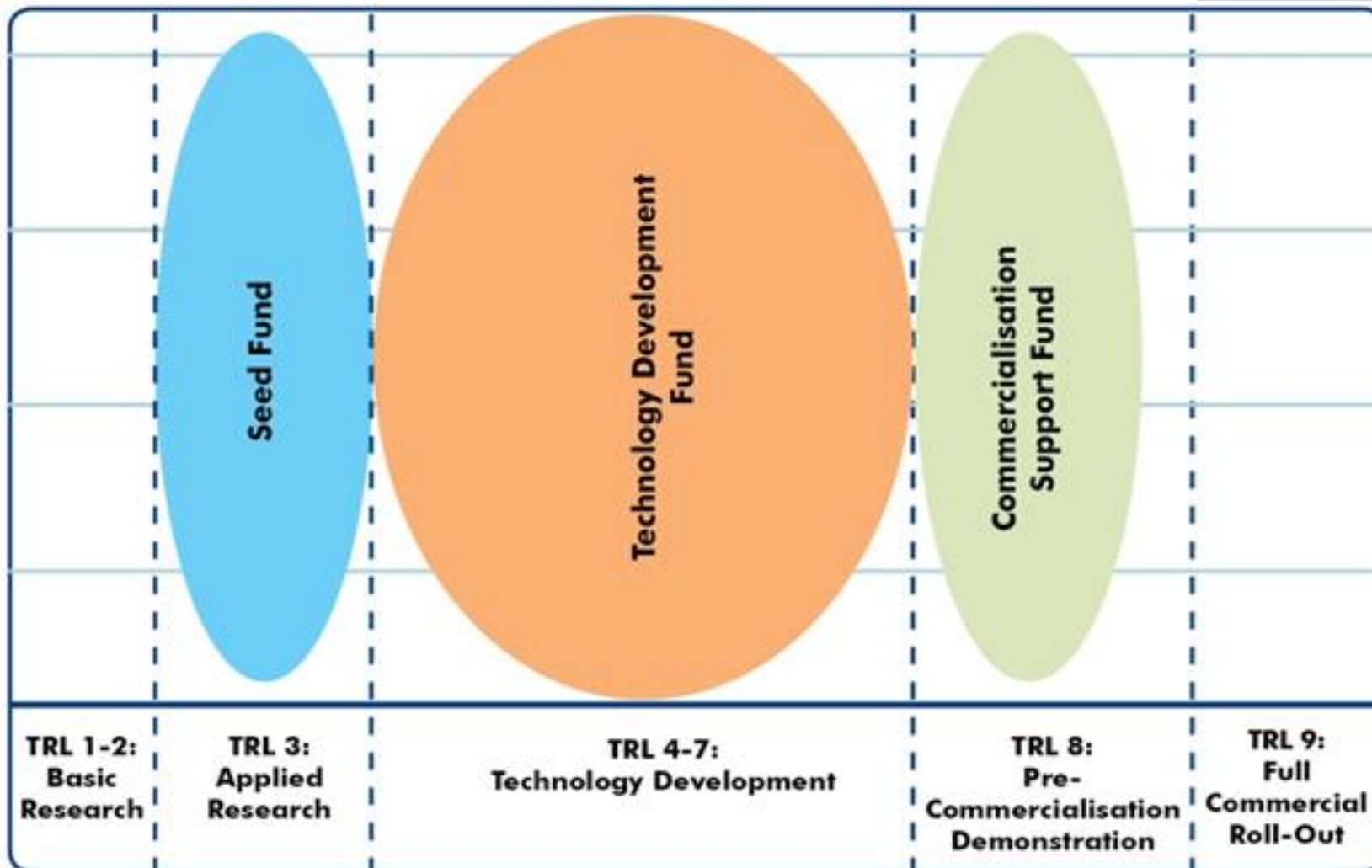
TIA plays the following roles within the Innovation Chain –

- **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)

TIA's Role, Funding Schemes and Support Programmes



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)

The Annual Performance Plan

- The plan represents the aspiration of TIA to deliver on its mandate
- The Plan defines TIA's strategic objectives and KPIs
- The Plan sets out priorities for TIA that stress the outcome-oriented monitoring and evaluation approach of the Presidency
- The Plan identifies funding required in order to achieve the strategic objectives

Strategic Objectives

- To provide customer-centric technology development funding and support
- To stimulate an enabling environment for technology innovation in collaboration with other role players
- To develop an effective and efficient internal environment to successfully execute the strategy

Strategic Objective 1 - *to provide customer-centric technology development funding and support*

- Number of technologies, products, processes and services reaching demonstration stages
- Number of technologies, products, processes and services taken up in the market (commercialised)
- Amount of third party funding attracted in TIA's portfolio

Strategic Objective 2 - *to provide an enabling environment for technology innovation in collaboration with other role players*

- Number of knowledge innovation products supported (prototypes developed, patents registered)
- Number of knowledge innovation products supported (prototypes developed, patents registered) receiving follow-on funding
- Number of Small and Medium Enterprises receiving technology support from the Technology Stations and Institutes of Advanced Tooling

Strategic Objective 3 - *to develop an effective and efficient internal environment to successfully execute the strategy*

- Investment approval turnaround time
- Improved adequacy and effectiveness on control environment
- Amount of funds spent on investments as a percentage of the MTEF
- A culture of high performance and innovation amongst employees

Links to Government Objectives

- **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 an inclusive growth path
- **Outcome 7:** Vibrant equitable and sustainable rural communities with food security for all

MTEF Allocation

TIA Allocation	2014/15 R'000	2015/16 R'000	2016/17 R'000
Baseline Grant	191 371	193 421	246 337
Ring-fenced allocations	189 347	191 767	244 230
Technology Stations	27 955	28 314	36 060
Institute for Advanced Tooling	5 964	6 038	7 690
Bio-economy projects	155 428	157 415	200 480
Total 2014 MTEF Allocation	380 718	385 188	490 567

MTEF allocation was significantly reduced with R130 million in 2014/15, R150 million in 2015/16 and R50 million in 2016/17

Budget 2014/17

	Budget 2014/2015 R' 000	Budget 2015/16 R' 000	Budget 2016/17 R' 000
Administration	181,359	120,987	127,036
Investments	211,359	274,202	371,532
Biotechnology	130,515	162,407	190,723
Industrial	46,925	60,804	69,791
Technology Station Programme	33,919	45,991	91,018
Other Programmes	-	5,000	20,000
Total expenditure	392,718	395,188	498,567
Admin as % of total spending	46%	31%	25%
Investment as % of total spending	54%	69%	75%

Budget Allocation for Strategic Objectives (2014/15)

- To provide customer-centric technology development funding and support (R128mil)
- To stimulate an enabling environment for technology innovation in collaboration with other role players (R83.3 mil)
- To develop an effective and efficient internal environment to successfully execute the strategy (R181.3 mil)

Funding Constraints

- TIA's Funding (over the MTEF period) has been reduced by R330 mil
- The baseline grant was reduced by R130 mil for the current financial year. This will impact on-going programmes and projects
- The following actions aim to mitigate the above constraints
 - reducing administration costs to an acceptable level and introducing business streamline initiatives
 - motivating for transfer/rollover of committed funds and for additional funds to DST and Treasury
 - Leveraging other income

Achievements

During the first three years TIA

- Invested R424 mil towards accelerating new technologies, services and products (supporting technology starts-ups, university spin-offs, SMMEs, SCs, innovation programmes and entrepreneurs)
- Assisted over 2000 SMMEs (through Tech Stations and Platforms)
- Developed network of strategic industry partners
- Established relationships with key funding agencies
- Created a conducive technology innovation ‘ecosystem’
- Introduced a youth innovation support programme
- Improved financial management

Examples of Projects within TIA's Portfolio

- The Oestrogenic Bone Matrix (OBM)
- The Advanced Reagents and Kits of the Next-Generation DNA Sequencing
- The Sterile Insect Technology (SIT) for False Codling Moth (FCM)
- The “FibreLux” Device
- The Coalgae™
- Electronic Price Labelling System
- Electrical Current Sensing Technology (“eSentry”)
- Electricity Theft Detection Device (Saggitarious Serpentarious)

Improving People Health through Innovation - Oestrogenic Bone Matrix (OBM)



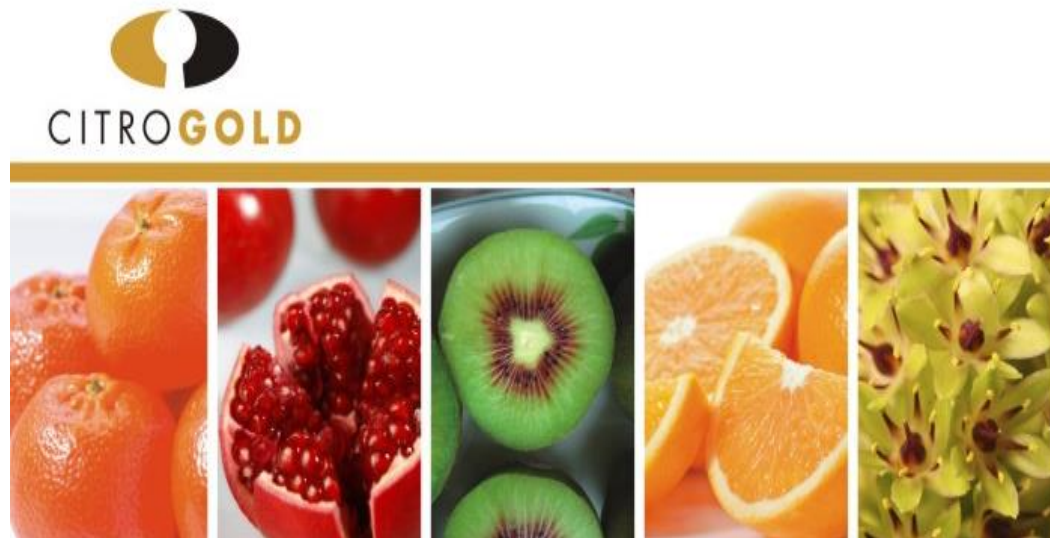
- Technology demonstrated in 250 patients
- Altis raising fund for regulatory approval
- Seeking medical reimbursement to enable full commercial deployment
- TIA funded R16.7 million

Improving South Africa's Economic Growth through Cutting-Edge Genomic Biotechnology - Advanced Reagents and Kits of the Next-Generation DNA Sequencing



- Kapa Biosystems is involved in the discovery, optimisation and commercialisation of novel protein-based products, including the development of next-generation polymerase-chain-reaction (PCR) reagents and kits of next-generation DNA sequencing (NGS)
- TIA invested R24 Million
- Kapa employs 75 people; both R&D and Manufacturing located in RSA; export market is mainly USA

Turning Oranges into Gold - Establishing Sterile Insect Technology (SIT) for False Codling Moth (FCM)



- SIT solves the False Codling Moth problem for citrus exporters facing phytosanitary barriers in export markets
- TIA invested R18.7 million to develop and commercialise the technology, partnering with the Citrus Growers Association
- XSit employs 86 full-time workers and conducts business with 15 raw materials suppliers and maintenance service providers with resultant upstream and downstream market linkages

Revitalising our Wool Industry - The “FibreLux” Device



- The “FibreLux” device is a portable, user-friendly, affordable and accurate fibre diameter meter for the on-farm measurement of wool, mohair and other animal fibre fineness
- TIA invested a total of R6.77 million for the commercialisation of the product
- The product is successfully being manufactured and sold by a local trading company

Turning Coal Waste into Clean Energy



- Micro-algae Biomass to Energy project is a Biofuels Technology Demonstration Programme
- The technology involves a patented process of designing and producing photo bioreactors for cost-effectively growing microalgae; harvesting and agglomeration of micro-algae with coal fines
- The project is currently conducting a feasibility study for the viability of a 1 hectare demonstration plant and 100 hectares commercial plan
- The total project funding since inception is R24.4 million and TIA is assisting the project to raise funds for the 1 hectare demonstration plant

Enhancing the Fast Consumer Goods Market – EPL, Electronic Price Labelling System



- An electronic price labelling system (EPL) for retail goods displays
- The technology will enable dynamic pricing (e.g. lunch hour pricing for product promotions) and optimal management of shelf life for FMCG
- TIA invested R15 million
- The technology has been widely patented, including in the USA and China; next stage is to be deployed for trials in retail stores;
- The global market for EPL's is estimated at R10 billion
- South Africa represents a market size of R123 million

Saving Lives through Fire Prevention in Low Cost Housing Development - Electrical Current Sensing Technology (“eSentry”)



The Electrical Current Sensing Technology (“eSentry”) was conceived by researchers at CPUT through prototype funding from the SPII. Manufactured at the TUT and piloted through funding support from SEDA and TIA.

Tiisetso Dev Solutions (Pty) Ltd (“TDS”) has incorporated the technology into low cost housing electricity distribution boxes. This technology aims to reduce residential electrical related fires by alerting home occupants through visual and audible indicators when the circuit is overloaded.

TIA invested R1.1 million for successful piloting of 100 “eSentry” fitted ready boards in partnership with the City of Tshwane Municipality in the Soshanguve township. The Innovation Hub has approved the commercialisation support funding.

Stimulating a Culture of Innovation in Young People – Electricity Theft Detection Device

A young entrepreneur (28 years old) won R175 million for Most Innovative Business at the 2013 Free State enter-PRIZE Job Creation Challenge

TIA's support included R500 000 for Technology Development, as well as SABS Product Testing, Business Coaching, IP and legal advice



50 units for tech demonstration by Electronics Tech Station

Supported by the KZN Industrial Energy Efficient Training & Resource Center

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.

Entrepreneurial Support Through Technology stations



- 15 Stations and 14 Platforms
- Partnerships with IDC and local governments
- Three provinces that have already had consultations with TIA are Mpumalanga, Northern Province and Limpopo
- At least 2000 new permanent jobs can be created by the new Agro-processing industries established in these provinces.

Our Values

Teamwork

- Together we can do more “ Fostering teamwork creates a TIA work culture that values collaboration and co-operation

Professionalism

- At TIA we apply the most appropriate skills, competencies, experience and knowledge of best practices cohesively in conducting our work

Excellence

- TIA will be accountable to all stakeholders to deliver exceptionally high standards of work and performance

Integrity

- At TIA everyone strives to do what they said they would when then said they would do it. “we keep our word”

Transparency

- Engage in inclusive open communication , and hold each other accountable for our performance and conduct

Innovation

- At TIA we foster a culture where we continually nurture and implement new ideas from our staff and stakeholders that enhance how we do things and deliver services to our clients

Thank you for your attention

