# STRATEGIC PLAN 2025–2030

science, technology & innovation
Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

technology innovation AGENCY
Innovating Tomorrow Together

30 YEARS OF FREEDOM

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# LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| **AI** | Artificial intelligence |
| **APP** | Annual Performance Plan |
| **B-BBEE** | Broad-Based Black Economic Empowerment |
| **bn** | Billion |
| **BRICS** | Brazil, Russia, India, China and South Africa |
| **COVID-19** | Coronavirus Disease 2019 |
| **DDM** | District Development Model |
| **DSTI** | Department of Science, Technology and Innovation |
| **FBIC** | Forestry Bio-economy Innovation Cluster |
| **GDP** | Gross domestic product |
| **GERD** | Gross Expenditure on Research and Development |
| **GNU** | Government of National Unity |
| **HEI** | Higher Education Institution |
| **HIV/AIDS** | Human Immunodeficiency Virus and/or Acquired Immune Deficiency Syndrome |
| **ICT** | Information and communication technologies |
| **IDC** | Industrial Development Corporation |
| **IK** | Indigenous knowledge |
| **IP** | Intellectual property |
| **IPR** | Intellectual Property Rights |
| **m** | Million |
| **MTDP** | Medium-Term Development Plan |
| **MTEF** | Medium-Term Expenditure Framework |
| **NACI** | National Advisory Council on Innovation |
| **NDP** | National Development Plan |
| **NSI** | National System of Innovation |
| **PFMA** | Public Finance Management Act |
| **R&D** | Research and development |
| **RDI** | Research, development and innovation |
| **SAHPRA** | South African Health Products Regulatory Authority |
| **SETA** | Sector Education and Training Authority |
| **SMME** | Small, medium and micro enterprise |
| **SPV** | Special Purpose Vehicle |
| **STI** | Science, technology and innovation |
| **TADF** | Technology Acquisition and Deployment Fund |
| **TIA** | Technology Innovation Agency |
| **TRL** | Technology readiness level |
| **TVET** | Technical and Vocational Education and Training |

# CHAIRPERSON'S FOREWORD

**Mr Loyiso Tyira**
Chairperson of the Board

I am honoured to present the Strategic Plan of the Technology Innovation Agency (TIA) for the 2025-2030 period. As I step into my role as the new Chairperson of the TIA Board, I am inspired by the untapped potential of this remarkable organisation. While its achievements since inception are commendable, challenges have at times overshadowed its capacity to achieve even greater impact. This Strategic Plan focuses on unlocking that immense potential and positioning TIA to operate at an even higher level of innovation and influence.

This Strategic Plan is framed around the priorities of the 7th Administration of the Government National Unity (GNU) as articulated in the Medium-Term Development Plan (MTDP). These are:

- Inclusive growth and job creation,
- Reduce poverty and tackle the high cost of living, and
- A capable, ethical and developmental state.

In framing this Plan, it was important for TIA to carefully reflect on its contribution to the realisation of these objectives through innovation. In this, the Agency has defined three Outcomes for the planning period that are centred around building a capable organisation, an efficient innovation ecosystem and an enhanced commercialisation dividend.

The Decadal Plan approved by Cabinet in 2022, represents a clear expression of the strategic intents articulated in the White Paper on Science, Technology and Innovation. There is, therefore, no doubt that the contribution of science, technology and innovation (STI) into the realisation of South Africa's socio-economic development objectives have been clearly articulated. What is important is to ensure its implementation in a manner that demonstrates the dividends of the country's investments in science and technology.

Through this, TIA has the responsibility to ensure that innovation remains one of the main contributors to socio-economic growth and development. In this, the Agency must play its part in supporting digital transformation that would contribute to the modernisation and renewal of key industries such as agriculture, manufacturing and mining, whilst driving innovation in other areas of health and energy. The challenges of climate change require that adoption of clean technologies and renewable energies are placed at the forefront of South Africa's future growth trajectory. This being done in a manner that ensures that marginalised segments of society, particularly those that will be affected negatively by these shifts, are protected and included as part of the new economic growth paradigm.

The Board has approved a new 10-year Corporate Strategy for TIA, dubbed "TIA 2.0". The Strategy sets a new direction for the organisation and seeks to build on its gains and past successes, whilst elevating its positioning for enhanced impact in shaping the South African innovation landscape in the future. At the heart of the Strategy are the principles of organisational excellence and enhanced impact on the country's socio-economic challenges through innovation. This Strategy sees TIA evolving in three phases of Consolidate, Grow and Scale over the period and seeks to position TIA as a Curator in the National System of Innovation (NSI) in the future. It represents an important transition from a transactional project-based mode and adopts a more programmatic approach, centred around collaboration that embraces the quadruple model of innovation.

This, therefore, puts into action a 'whole-of-society' approach to innovation, as articulated in the White Paper on Science, Technology and Innovation. This will see TIA adding to its arsenal of instruments and interventions, investments into multi-stakeholder catalytic high-impact Strategic Innovation Programmes (SIPs) that will shape industries, promote their competitiveness and build new ones aligned to the priorities of the Decadal Plan.

Core to the Corporate Strategy is a capable TIA, an institution that is inherently a capability of State functioning at high levels of efficiency, driven by digital transformation and capacitated by staff that possess deep knowledge of the innovation space and embrace the principles of excellence.

The Strategic Plan 2025-2030, therefore, represents efforts to embed the first two phases of the Corporate Strategy, i.e. the Consolidate and Grow phases that places a sharp focus on institutional capability and positioning as well as building on the strong foundations from systemic interventions – funding instruments and programmes – that the Agency has put in place.

Through a continuous process of self-reflection and interactions with stakeholders, the Agency will continue to explore ways of adapting and responding to the challenges of the day.

This Strategic Plan, therefore, constitutes the foundational script on which TIA will aim to mobilise its partners and stakeholders, and work to make a meaningful impact in addressing South Africa's challenges.

I would like to thank the Minister of Science, Technology and Innovation, Honourable Professor Bonginkosi Nzimande, and the senior leadership team at the Department for their constructive engagement and support in developing the strategy during this exciting time. I would also like to thank my colleagues on the TIA Board, management and staff for their commitment and deep knowledge of the organisation and the NSI that they have demonstrated in this process.

On behalf of the TIA Board, I pledge this as the organisation's commitment to making South Africa a great country for all our citizens to live in.

Mr Loyiso Tyira
**Chairperson of the Board**
**Technology Innovation Agency**

# CHIEF EXECUTIVE OFFICER'S OVERVIEW

**Mr Patrick Krappie**
Acting Chief Executive Officer

The 2025-2030 strategic period is marked by the reconfiguration of the Agency into a reimagined organisation that is better equipped to stimulate and accelerate innovation. TIA will reposition itself during this period as Curator and Thought Leader in the NSI, both roles being critical to allow the Agency to deliver on its strategy.

The reimagining of TIA is in response to an expert panel review undertaken at the behest of the then Minister of Higher Education, Science and Innovation in 2022. The review produced significant findings and recommendations on various policy and strategic issues in relation to TIA's ability to fulfil its mandate.

In responding to the Ministerial Review, the Agency initiated a process dubbed "TIA 2.0" to reposition and reconfigure itself for the future. This initiative also took into consideration the findings and concerns raised in several reviews of the Agency and of the South African NSI, including the National Treasury Spending Review, the Higher Education, STI Institutional Landscape Review, as well as key publications such as the South African National Survey of Intellectual Property and Technology Transfer.

The TIA 2.0 process has produced a 10-year Corporate Strategy which frames the key focus areas for the Agency for the period 2025-2035. The first phase (dubbed the Consolidate phase) seeks to build on the Agency's current successes, whilst also allowing it to address gaps in the current organisational configuration and systemic challenges within the NSI.

In this, TIA will pay particular attention to improving operational efficiencies around investment decisions turnaround time, organisational leadership, and commercialisation capabilities, amongst others.

The second phase (the Grow phase) will commence within the 5-year strategic cycle, with a focus on growing the scope of technology innovations and commercialisation so that TIA can make a meaningful impact in terms of addressing key socio-economic challenges. The third phase (called the Scale phase) will commence in the next strategic cycle and will seek to achieve a critical mass with TIA's expanding geographic footprint and addressing socio-economic challenges nationally, regionally, and internationally. Scaling for TIA implies an increase in its capacity, impact and reach, allowing it to support more innovations, reach a broader audience, and generate a more substantial impact on South Africa's innovation ecosystem.

Until the end of the previous strategic cycle, the TIA primarily operated on a direct funding approach and as an innovation ecosystem enabler, structured around three key roles, namely, connector, funder and facilitator. In the implementation of the TIA 2.0 Corporate Strategy, a revised business model has been developed which seeks to introduce significant changes that will respond to the deepening national and global challenges of low growth, extreme poverty, high inequality, worsening unemployment, degrading natural ecosystems, worsening climate change and more. The new model focuses on institutionalising the Decadal Plan and establishing a Fund of Funds and SIPs premised on partnerships and collaboration, among other key initiatives.

In the upcoming period the TIA will foster strong partnerships and collaboration with institutions across the post-secondary education and training sector, industry, government and international organisations. The Agency will grow and leverage these partnerships to enhance its resources, expertise and reach. All this will be done to strengthen relationships with key stakeholders who hold great potential in strengthening the NSI. These collaborations and partnerships have been conceptualised to also deal with the issue of a deteriorating fiscal situation which has led to the Agency receiving a reduced Medium-Term Expenditure Framework (MTEF) allocation.

The upcoming period will also focus on the establishment of SIPs centered around the Decadal Plan's priorities. These will operate through the directing of resources towards innovations in sectors that hold high potential to contribute to South Africa's socio-economic challenges.

The expansion of TIA's role from being a funder to also operating as a fund manager and an investor will place the Agency in a unique position that allows it to exert greater control and influence within the NSI. Enhancing TIA's role is aimed at ensuring that innovations holding great potential to transform the country's economy receive the necessary support.

TIA is gearing up and looking forward to advancing its mandate in a more strengthened position as a Curator and Thought Leader in the NSI. Much work lies ahead of us to ensure that the organisation delivers on its mandate more effectively. TIA's executive management and staff stand ready to achieve significantly more impact in the coming strategic period, and I invite all our stakeholders and partners to join with us as we strive to improve the lives of all South Africans through innovation.

Mr Patrick Krappie
**Acting Chief Executive Officer**
**Technology Innovation Agency**

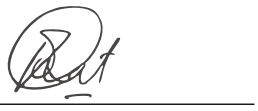
# OFFICIAL SIGN-OFF

It is hereby certified that this Strategic Plan:

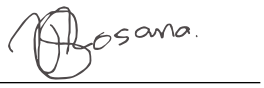
- was developed by the management of the Technology Innovation Agency under the guidance of the TIA Board and the Department of Science, Technology and Innovation;
- considers all the relevant policies, legislation and other mandates for which the Technology Innovation Agency is responsible;
- accurately reflects the Impact, Outcome and Outputs which the Technology Innovation Agency will endeavour to achieve over the period 2025 to 2030.

**Signed by:**

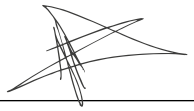
**Mr Dayanandan Naidoo**
Acting Executive: Commercialisation



**Mr Mohohlo Molatudi**
Acting Executive: Bio-economy

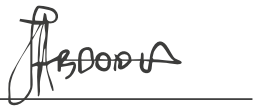


**Mr Vusi Skosana**
Acting Executive: Innovation Enabling



**Mr Garth Williams**
Head: Strategic Planning and Reporting

**Ms Corlette Mamabolo**
Acting Executive: Corporate Services



**Mr Ismail Abdoola**
Chief Financial Officer

**Mr Patrick Krappie**
Acting Chief Executive Officer

**Mr Loyiso Tyira**
Chairperson of the Board

**Prof. BE Nzimande, MP**
Minister of Science, Technology and Innovation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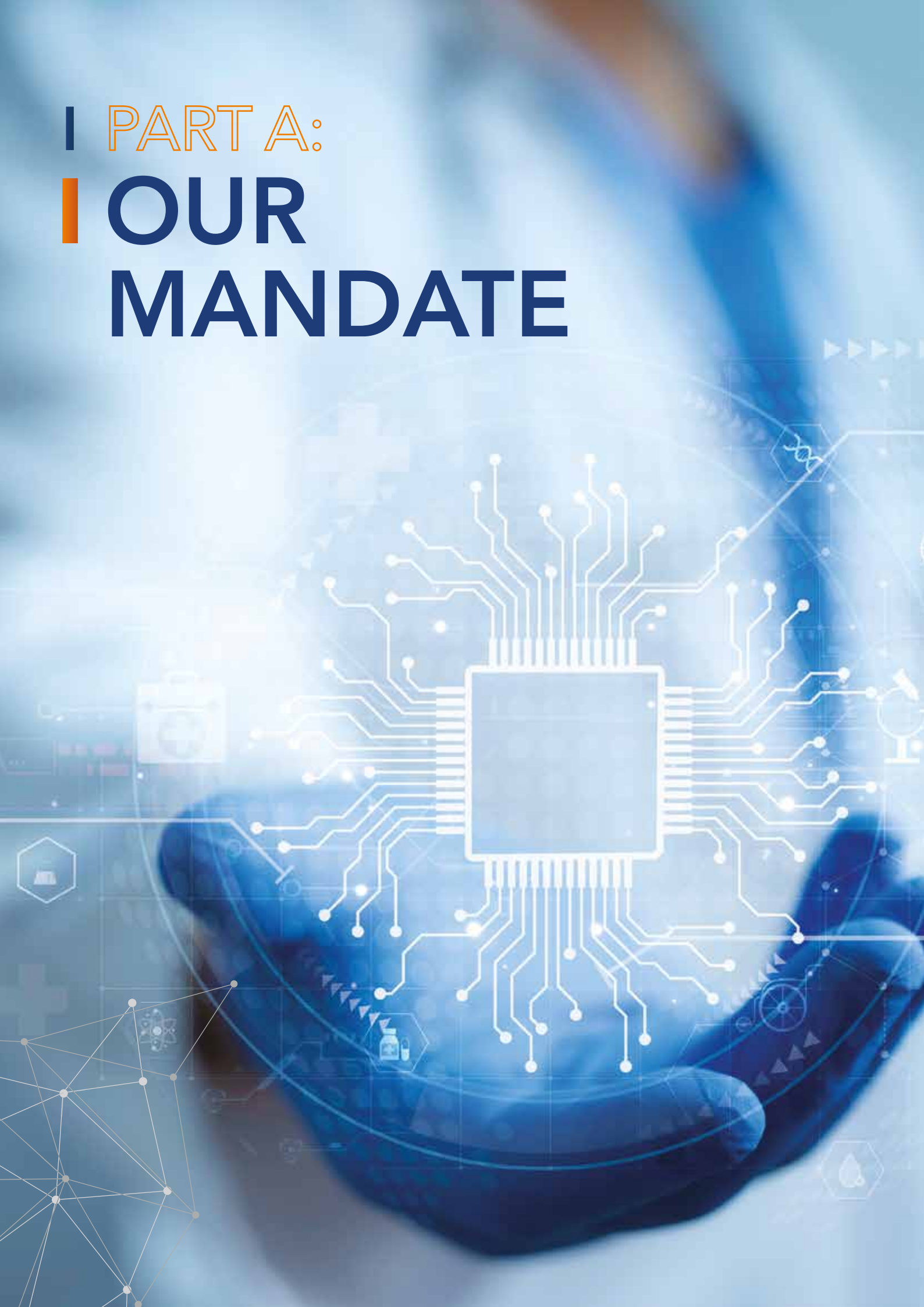
# PART A:
# OUR MANDATE



# PART A: OUR MANDATE

## 1. CONSTITUTIONAL MANDATE

Not applicable.

## 2. LEGISLATIVE MANDATE

The TIA is established as a Schedule 3A public entity under the provisions of the Public Finance Management Act (Act No. 1 of 1999) (PMFA). The mandate of the TIA is derived from the provisions of the Technology Innovation Agency Act (Act No. 26 of 2008), which establishes the TIA as an Agency to promote the development and exploitation, in the public interest, of discoveries, inventions, innovations and improvements.

The objective of the TIA is to support the state, through the Department of Science, Technology and Innovation (DSTI), in stimulating and intensifying technological innovation to improve economic growth and the quality of life of all South Africans by developing and exploiting technological innovations.

## 3. POLICY MANDATES

### 3.1 NATIONAL DEVELOPMENT PLAN 2030

The National Development Plan (NDP) recognises that development in STI fundamentally alters the way people live, communicate and transact. The NDP highlights the fact that STI is key to equitable growth and underpins economic advances and the improvement of health systems, education and infrastructure. The NDP has entered the last phase (2025–2030) of implementation.

The NDP review is a process that was embarked upon to determine progress in achieving vision 2030 as set out in the NDP. For the period under review (2012–2019), the economy remained in a low-growth trap, with Gross Domestic Product (GDP) growing by only 1.3% a year. This was well below the NDP target of growing the economy at 5.4% on average per annum by 2030. The NDP also set targets for reducing unemployment from 25.4% in 2010, to 20% by 2015, 14% by 2020 and 6% by 2030. The path to achieving the 2015 goal would have entailed the creation of 2.2 million jobs between 2010 and 2015, or 436 000 jobs annually. This would have relied on an average GDP growth rate of about 4.6% per annum. During the 2008–2017 period, the average annual job creation was 141 000, which is only 30% of what was needed. In 2024 the unemployment rate rose to 33.5% in the second quarter. According to a 2022 World Bank report, South Africa has been identified as the world's most unequal region; this is portrayed in the unemployment statistics which identify large sections of society as having no income or access to opportunities.

Employment continues to have a gendered and a generational distribution. Women have far lower employment prospects than men: about 37% of women of working age are in employment compared to 50% of men. Youth (15–24 years of age) unemployment is persistently much higher than that of all the older age groups and it has remained consistently at about 50%.

The challenges identified included that during the period following the adoption of the NDP, the required strong political will and leadership to rally society and social partners to implement the Plan was absent. This lack of inspiration and implementation has left the country well short of its 2030 vision and targets. Accordingly, the National Planning Commission started a campaign called a "A call to Action" that sought to mobilise all the social partners to help the government get back on track towards achieving vision 2030. This call to action followed in response to the NDP review findings. The commission identified four programmes that could help the country get back on track on the path towards vision 2030. These programmes are:

- a national infrastructure implementation programme;
- a sectoral growth implementation programme;
- a just energy transition implementation programme and;
- a national state capability-building programme.

The 7th administration is faced with a massive task ahead and it has accordingly embarked on dealing with these issues and related problems. This should provide a good basis from which to reinvigorate the implementation of the NDP urgently and decisively with strategic coherence, a process in which roles and responsibilities in state institutions and among social partners are clearly articulated and accountability is enhanced.

### 3.2 MEDIUM-TERM DEVELOPMENT PLAN 2025–2030

The MTDP 2025–2030 serves as the implementation plan for the last phase of the NDP. It identifies three strategic priorities and related outcomes to guide planning for all stakeholders:

**Priority 1:** Inclusive growth and job creation

**Priority 2:** Reduce poverty and tackle the high cost of living

**Priority 3:** A capable, ethical and developmental state

Through its mandate, the TIA will contribute to these priorities by commercialising intellectual property (IP) from publicly funded research institutions and support the creation of technology enterprises that will contribute to job creation, with a specific emphasis on historically disadvantaged individuals and marginalised communities.

## 3.3 NATIONAL SPATIAL DEVELOPMENT FRAMEWORK 2050

The National Spatial Development Framework 2050 sets out national spatial directives for all forms of infrastructure investment and developmental spending that are targeted by government in partnership with the private sector. In order to realise this, one of the key thrusts of the plan is "technology, innovation, resilience and disruptions in the space economy". On the back of these measures, South Africa will roll out fast broadband access across the country; support the development of highly automated mining activities; promote automation in key economic sectors such as manufacturing and agriculture and accelerate the closure of factories and mines that are unable to compete globally. To these ends, the TIA will increase the footprint of its innovation infrastructure in order to contribute to the framework's aspirations of "a focus on innovation and knowledge generation, packaging and sale, expansion, modernization and re-gearing of the higher education sector towards growing and supporting innovation". These will be implemented in the medium term by ensuring that the interventions it undertakes lead to inclusive development at the local level.

## 3.4 WHITE PAPER ON SCIENCE, TECHNOLOGY AND INNOVATION

Cabinet's adoption of the White Paper on Science, Technology and Innovation in March 2019 signals material policy shifts for activities related to STI; these shifts are aimed at realising aspects such as transformation and inclusivity and creating strong linkages within the NSI. They include, in the first instance, strengthening the culture of innovation at all levels of government and society, improving policy coherence and ensuring more effective budget and programme coordination in the NSI. In addition, there will be a focus on implementing monitoring and evaluation systems, creating a more enabling environment that advances innovation, developing local innovation ecosystems and increasing investment in technology-based small, medium and micro enterprises (SMMEs) and support to grassroots and social innovation projects.

## 3.5 DECADAL PLAN ON SCIENCE, TECHNOLOGY AND INNOVATION

The Decadal Plan was approved by Cabinet in November 2021. It articulates three societal grand challenges on (1) climate change and environmental sustainability, (2) future-proofing education and skills, and (3) the future of society. It also defines six STI priorities that focus on:

- revitalising and modernising sectors of the economy in the agriculture, manufacturing and mining sectors;
- exploiting new sources of growth in the circular economy and the digital economy;
- innovation in support of health;
- innovation in support of the energy sector;
- innovation in support of a capable state and;
- innovation for inclusive development.

For the TIA, the Decadal Plan represents an important step towards setting out a sound, clear policy direction with respect to the key imperatives that must be pursued through STI where the Agency has an important contribution to make. Translating the Decadal Plan priorities into action therefore requires an approach of embedding these into the organisational structure to ensure that they are implemented effectively. Each of the key priorities in the Decadal Plan will be realised through the full deployment of the elements of the Agency's business model. They will consequently find expression in direct funding, the Fund-of-Funds, and SIPs. This approach constitutes a significant shift from the way the Agency currently undertakes its work. The organisation will therefore have to drive meaningful internal collaboration in addition to fostering collaboration with its partners and stakeholders in the innovation ecosystem.

In addition, adopting the Thematic Impact Areas will inform decisions on initiating new or exiting existing projects, initiatives or programmes, or even on scaling up existing projects, initiatives or programmes.

### 3.6 DISTRICT COORDINATION SERVICE DELIVERY MODEL

In August 2019, Cabinet approved the District Development Model (DDM) as a way of synchronising planning by all spheres of government at the national, provincial and local levels. This model is intended to enable partnerships with civil society – including communities, private industry and labour – at the district level countrywide through the development of South Africa's municipal districts and metros. This developmental initiative is termed "khawuleza" ("hurry up"). By implementing this model, the government seeks to change the face of rural and urban landscapes by ensuring greater alignment between urban and rural development, with a deliberate emphasis on local economic development. The district-driven model is directed at turning plans into action and at ensuring that effective project management and tracking are put into effect. The shortcomings in previous service delivery models have necessitated a new, more practical, achievable, implementable and measurable approach to development that is clearly aligned with the key government priorities.

In implementing the DDM policy, the TIA's approach is informed by the outcomes and recommendations of technology uptake in the DDM, an STI plan published in March 2023. This work was commissioned by the DSTI as a way of reviewing the 50 plans of the DDM. The Agency's interventions are aimed at achieving several objectives, including raising awareness of the impact of innovation and technology on the population, policy inputs, and the continuing implementation of the Decadal Plan.

As part of the DDM, the TIA has partnered with the DSTI to implement the Viability and Validation of Innovations for Service Delivery Programme. This program is designed to support municipalities in adopting technologies and innovations that can improve the delivery of basic services such as water, sanitation, energy, human settlements, and waste management. TIA also facilitates the demonstration of several decision support tools that can help municipalities improve business processes and establish systems for planning, monitoring, and managing various business processes. Some of these decision support tools are crucial for crime prevention, climate risk, and vulnerability management, as well as planning and reporting. In partnership with the DSTI, TIA will continue to introduce innovative interventions aimed at creating an enabling environment for innovation in municipalities within the context of the DDM.

This includes deepening and expanding the Technology Acquisition and Deployment Fund (TADF) and supporting the DSTI in implementing its DDM Strategy Framework, along with initiatives that support the four DDM impact areas identified in the framework and designing tools to implement the Decadal Plan interventions in local government.

## 4. INSTITUTIONAL POLICIES AND STRATEGIES OVER THE FIVE-YEAR PLANNING PERIOD

### 4.1 TIA 2.0 CORPORATE STRATEGY

The *2025–2035 Corporate Strategy: A Strategic Roadmap for TIA 2.0* has been developed. This strategy is a high-level roadmap that will reposition, reconfigure, and transform the TIA. Its purpose is to position and configure a future state TIA into a capable Agency that enables it to deliver effectively on its specific innovation mandate while continuing to play a strategic role in relation to the NSI.

This Corporate Strategy is based on the broad framework of the Consolidate, Grow, and Scale phases. The Consolidate phase focuses on resolving operational inefficiencies. The Grow Phase will focus on building partnerships with public- and private-sector entities and on implementing high-impact multi-stakeholder SIPs. This phase will also include implementing an expanded business model in which the focus will be on adding a Fund-of-Funds approach. This funding approach will expand beyond the current direct funding model and will create an opportunity for the Agency to be less reliant on MTEF allocations through the leveraging of funds from multi-stakeholder collaborations. The scale-up phase will expand on what has been achieved during the Grow phase.

This Corporate Strategy focuses on building a capable, agile, scalable, and sustainable organisation off the base of the TIA's existing assets, experience, and success in order to make an innovation impact of a high order. The interventions proposed in the strategy place the Agency in a position to execute its innovation mandate and positions the Agency as a Curator and Thought Leader in the NSI. The focus includes shifting from supply-side or science-push interventions to demand-led support, by concentrating on use-oriented research and development (R&D). This means that the Agency's activities will be undertaken with a specific social, environmental, or economic need or challenge in mind, always taking inclusion and transformation into account. Furthermore, decision-making in a TIA 2.0 will be informed by strong strategic intelligence.

## 4.2 COMMERCIALISATION ENABLEMENT STRATEGY

Commercialisation is one of the core pillars of the TIA, one that is positioned to redress the systemic inadequacies of supporting the translation of South African technological innovations. This strategy is a pragmatic framework that underpins the exploitation of publicly funded assets that support the Agency in discharging its mandate. Concurrently, the strategy also supports key national strategic initiatives led by the principal shareholder, the DSTI, and the broader NSI, with a view to transforming the growth trajectory of the South African economy.

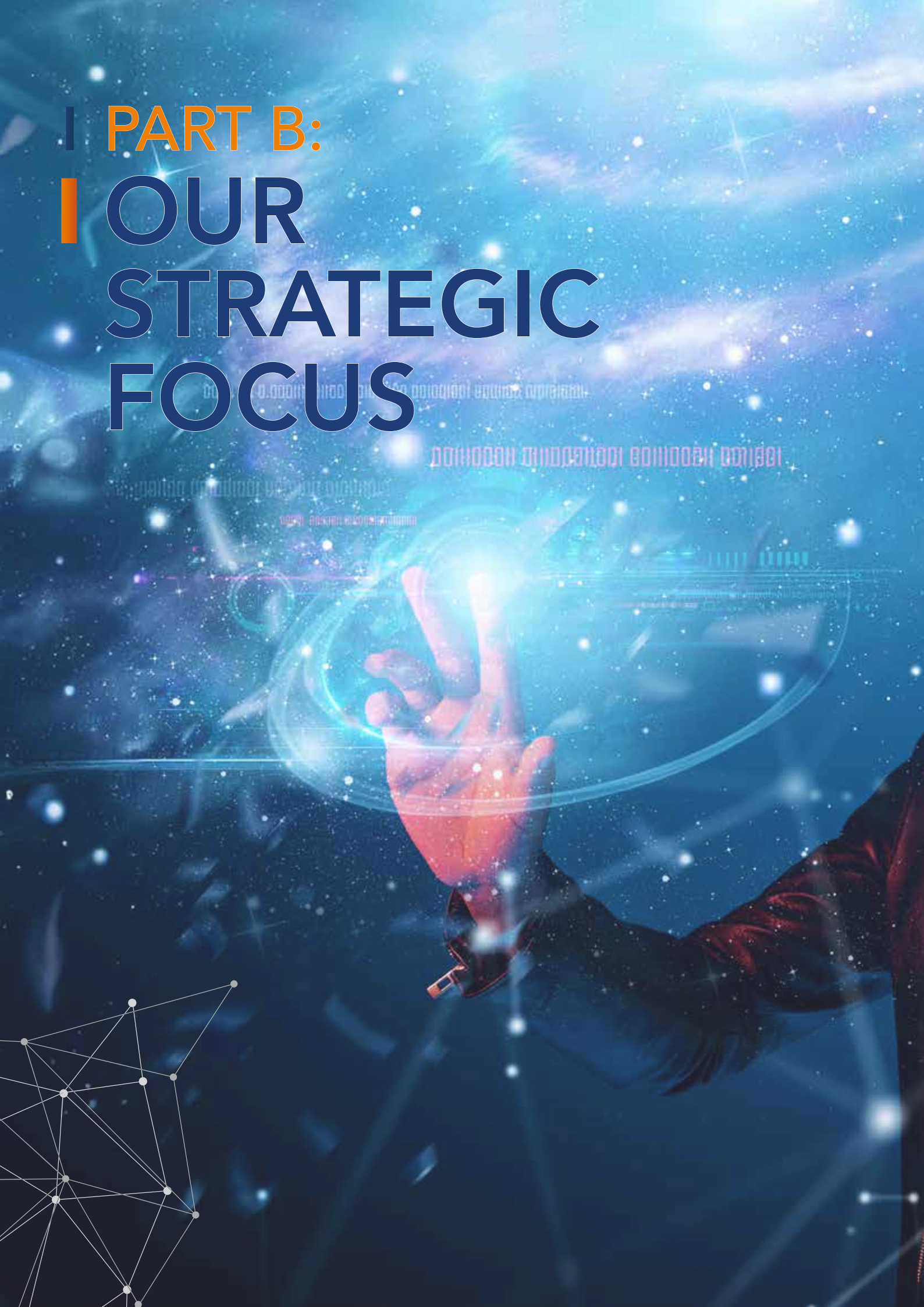
This strategy is aimed at bringing about significant change in the way the Agency's commercialisation enablement efforts are executed as part of the TIA 2.0 roadmap of repositioning and improving the performance of the Agency. This strategy identifies specific interventions across six impact areas, being: (1) internal institutional commercialisation capabilities; (2) strengthening the technology transfer system; (3) the entrepreneurship ecosystem; (4) building talent to grow and strengthen the number of founders to increase start-up formation and their rate of success; (5) providing market access support, and (6) implementing a Venture Builder Programme, along with Technology Parks, in partnership with other government departments and the private sector.

The Agency's commercialisation enablement function will be empowered by it playing a curatorship role in the NSI. This will be implemented by directing resources towards innovation in sectors that show high potential to contribute to overcoming South Africa's socio-economic challenges. This role will also be used to foster the alignment of existing government funding instruments, the promotion of synergies in funding processes, and the pooling and sharing of expertise among various partners.

The TIA's thought leadership role will also be maximised to support evidence-based policy formulation gathered from intelligence drawn from its investment management activities. The role envisaged is one that places the Agency at the cutting edge of knowledge gathering, it having the ability to provide an independent and credible analysis of the innovation ecosystem and a diagnosis of gaps while putting in place key measures to close the gaps identified.

The country's transformation policies will feature significantly in the implementation of this Commercialisation Enablement Strategy. Funding support for youths, persons with disabilities, and women will be prioritised. In support of spatial transformation, funds will be allocated to underserved provinces to support those innovation endeavours that fall within this category.

This strategy is deliberately referred to as the "Commercialisation Enablement Strategy" precisely because the TIA is responsible for enabling commercialisation and is not itself an R&D-performing entity. Its role therefore is to put in place measures in the system that will enable R&D performers and innovators to commercialise their technologies. The strategy delivers pragmatic antidotes to the systematic inadequacies identified along the innovation value chain, both internally at the Agency and within the broader NSI.



# PART B:
# OUR STRATEGIC FOCUS

# PART B: OUR STRATEGIC FOCUS


**TEAMWORK:** Together we can do more. Fostering teamwork creates a TIA work culture that values collaboration and co-operation.

**PROFESSIONALISM:** We apply the most appropriate skills, competencies, experience and knowledge of best practices cohesively in conducting our work.

**TRANSPARENCY:** We engage in inclusive open communication and hold one another accountable for our performance and conduct. Integrity plays a key role in transparency, because it ensures that the information provided is accurate, truthful and free from deception or manipulation.

**INNOVATION:** We foster a culture in which we continually nurture and implement new ideas derived from our staff and stakeholders that enhance the way we do things and deliver our services.

**ACCOUNTABILITY:** We take personal accountability for our actions and results. We focus on finding solutions and achieving results. When we report, it is not only for compliance purposes; we give meaningful and accurate information to all of our stakeholders

**CUSTOMER-CENTREDNESS:** We create a positive customer experience by maximising our services and building relationships. We strive to understand our customers and build products and services around their needs.

**RESPECT:** We treat all individuals with fairness, dignity and consideration in the workplace, regardless of their role or background. At the TIA we believe that respect fosters a culture of inclusivity, collaboration and mutual understanding, which leads to a positive work environment and enhanced team dynamics.

## 8. SITUATIONAL ANALYSIS

As the government moves into the 7th administration under the Government of National Unity (GNU) the TIA Board and management have undertaken a review of the external and internal environment to assess the factors that are likely to influence the Agency's ability to deliver on its strategy during this period.

The forthcoming period is marked by the reconfiguration of the Agency to being a more efficient and impactful organisation. This process has come about because of the Ministerial Supplementary Review, the final report of which was published in 2022. The Agency has been subjected to numerous reviews in the past, inclusive of the National Treasury Spending Review. The Ministerial Supplementary Review has recommended substantial changes in the way the Agency operates. In response to this review, the Agency embarked on the development of the TIA 2.0 Corporate Strategy. As part of this endeavour the Agency seeks to retain its current value proposition and will also build its Thought Leadership and Innovation Curator brand and use these to be a system optimiser while adding value to the NSI broadly and also to our stakeholders and beneficiaries.

This strategy has been developed in an environment of poor economic performance nationally. In the previous planning cycle cost-containment measures and budget cuts were implemented by the National Treasury. The cost-containment measures continued into the last financial year of the 6th administration and are likely to continue until a significant economic turnaround occurs. The budget cuts are due to a deteriorating fiscal situation, with economic growth having been suppressed and having become less than optimal, prompting the government's reaction.

Despite the current challenging situation, however, the TIA remains optimistic and focused on achieving its predetermined objectives. Indeed, these challenges present the Agency with an opportunity to find solutions to pressing matters and to accelerate measures for accessing funding from other sources that share similar objectives. Accessing these funds will be a way to drive projects that are of strategic importance to the Agency.

An analysis of the TIA's own strengths, opportunities, weaknesses and threats is presented in Table 1 below.

Table 1: TIA SWOT analysis

| | |
|---|---|
| STRENGTHS | • The uniqueness and extent of the TIA's mandate positions it as a relevant institutional intervention in the NSI.<br>• Its solid foundation comprising key instruments such as the Seed Fund Programme, Technology Stations Programme and Technology Platforms Programme (unique innovation funding instruments).<br>• Track record of funding innovations.<br>• Active funder involved in the post-investment process.<br>• Deep expertise in science, engineering and technology capabilities.<br>• Uniqueness of TIA's mandate – derisking.<br>• Good baselines for sound strategic partnerships. |
| WEAKNESSES | • Suboptimal organisational structure for the successful implementation of the TIA 2.0 Corporate Strategy.<br>• Weak positioning with stakeholders.<br>• Silos getting in the way of effective work (internal fragmentation).<br>• Lack of cross-functional teams.<br>• Under-capacitated structure.<br>• Weak branding and marketing.<br>• Inadequate compliance with policies and procedures.<br>• Inadequate funding to respond to increased demand and dynamism of ecosystem. |
| OPPORTUNITIES | • Strong network of partners that the TIA can rely on and leverage.<br>• Opportunity to emulate the success of partnerships in bioeconomy across the TIA.<br>• Scaling-up and implementation of programmes that promote transformation.<br>• Supporting service delivery through locally developed innovations.<br>• Deepening collaboration with the growing venture capital sector and other institutional investors.<br>• Existence of a strong network of partners with deep expertise for increased execution of the TIA mandate.<br>• Prospects for use, adoption and deployment of technologies for digital transformation to drive societal change.<br>• Possibilities offered by the green revolution in response to climate change.<br>• Repositioning the TIA as a capable and responsive institution geared for higher impact. |
| THREATS | • Mandate creep leading to duplication of resources.<br>• Poor knowledge management and loss of organisational knowledge.<br>• Competition for skills resulting from a rapidly expanding ecosystem.<br>• Increasingly diminishing fiscus.<br>• Poor appreciation across government departments and levels of government of the potential for innovation to redress social, economic and environmental issues. |

An analysis of the external environment in which the TIA operates is presented in Table 2.

Table 2: PESTEL analysis

| Dimension | Opportunity or risk |
|---|---|
| **Political**  | • Parties in the Government of National Unity are united in support of the need for STI to make an impact.<br>• Potential to respond to the coordination or fragmentation challenges of the NSI through greater cooperation with other government departments and the private sector and by implementing collaborative initiatives.<br>• Potential for closer cooperation with the departments in the economic sectors, investment, Employment and Infrastructure Development Cluster, especially the DHET.<br>• Poor appreciation across government departments and levels of government of the potential for innovation to redress social, economic and environmental issues.<br>• Establishment of the GNU with some market-friendly signalling, but a risk of continuing policy incoherence. National energy policy is a case in point. |
| **Economic**  | • Declining GDP with load shedding contributing 2% to the decline.<br>• A shrinking national budget, on the one hand, but an increasing demand for funding from clients, on the other, affects the way in which we can fulfil our mandate as the TIA.<br>• Food price inflation increasing to 7.3%, higher than general inflation.<br>• For the TIA, the increase in fuel prices equates to an increase in the cost of doing business.<br>• De-dollarisation.<br>• Hike in interest rates.<br>• Geo-politics.<br>• Potential for economic recovery in the post-COVID-19, post-local-elections period. |
| **Social**  | • Increasing poverty.<br>• Poor-quality education.<br>• High crime rate.<br>• Widening inequality.<br>• Growing population.<br>• Increased disease burden.<br>• High unemployment, especially among black people, youths and women.<br>• Likelihood of civil unrest, particularly at universities during the annual #FeesMustFall campaign.<br>• Poor service delivery, particularly at the local municipal level.<br>• Imperative to harness innovation to promote transformation and inclusion. |
| **Technological**  | • Increased digitalisation of the economy.<br>• Declining expenditure on experimental development.<br>• Declining GERD and business expenditure on R&D in real (inflation-adjusted) and nominal terms.<br>• Declining inventiveness as reflected by patents.<br>• Low proportion of local inventors compared to other nations.<br>• Rapid technological change and associated disruption to the economy and society.<br>• South Africa's research enterprise is well balanced, with pockets of world-class science and technological capabilities (e.g., health).<br>• The NSI's response to the COVID-19 pandemic demonstrated the importance of a strong, coordinated and well-resourced STI system. |
| **Environmental**  | • Climate change: what the TIA supports must promote environmental sustainability in the green economy.<br>• Sustainability: using the right energy from renewable resources.<br>• Accelerating and irreversible climate change.<br>• Increasing environmental degradation.<br>• Potential to leverage South Africa's rich diversity. |
| **Legal**  | • TIA ACT still relevant.<br>• Opportunities to create regulations that shape compliance and encourage performance.<br>• Compliance with relevant legislative prescripts, including enabling legislation.<br>• Potential for the state to adopt stronger capital controls and increased taxation, which has the potential to render the economy less competitive and hinder growth. |

## 8.1 EXTERNAL ENVIRONMENT ANALYSIS

An external environment analysis highlights the multifaceted environment in which South Africa's innovation system operates, including the political, economic social, technological, legal and environmental factors. Dealing with these factors holistically can help to foster a more conducive ecosystem for innovation and growth.

### 8.1.1 Political factors

South Africa has implemented various policies and strategies, such as the NDP and the policies of the DSTI, to promote innovation. However, political instability as exemplified by the emergence of coalition governments in all speres and fluctuating government priorities can affect consistency and long-term planning. Innovation can be used to contribute to strengthening the capacity of the state. Furthermore, the TIA, in its programming, will create programme focus areas that enhance the notion of a joined-up government as a driver of socio-economic benefit.

### 8.1.2 Economic factors

**Economic growth and stability:** South Africa's economic growth has been disappointing, with unacceptable levels of poverty, high levels of unemployment and economic inequality. Budget cuts and cost-containment measures were implemented by the 6th administration due to a deteriorating fiscal situation brought on by subdued economic growth, prompting budget cuts and cost-containment measures. It has been argued that South Africa's system of innovation has not contributed sufficiently to economic growth and job creation. But the TIA's innovation and commercialisation enablement functions are able to help the NSI register a greater contribution to economic growth.

**Funding and investment:** The availability of venture capital and government funding for R&D is crucial. However, gross expenditure on R&D (GERD) has been on the decline, which has a direct effect on the innovation pipeline. In view of this, the TIA will review the funding landscape to consolidate and scale up funding for in order to help it make a greater impact on R&D. The proposed adoption of a Fund-of-Funds and SIPs is part of the efforts it will make to increase the pool of funding available in the innovation ecosystem.

### 8.1.3 Social factors

**Education and skill levels:** The quality of education and the availability of skilled professionals play vital roles in innovation. Although South Africa has several outstanding STI institutions, disparities in educational outcomes can limit the pool of innovative talent. The institutions that drive capacity-building include, among others, Higher Education Institutions, Technical Vocational Education and Training (TVET) Colleges, Centres of Competence and Centres of Specialisation; these can be harnessed to achieve better innovation outcomes. As a thought leader and Innovation Curator in the innovation ecosystem, the TIA intends to collaborate with these institutions and industry training centres to ensure the systematic development of the additional required capacity in line with future needs.

**Cultural attitudes:** There is a growing interest in entrepreneurship and innovation among the younger population. However, there is need to build on this trend by putting in place systems that will drive the greater uptake of a culture of entrepreneurship and innovation through targeted capacity-building programmes.

### 8.1.4 Technological factors

**Technological infrastructure:** The development of technology parks and innovation hubs and increased internet penetration are positive indicators of the development of a technology infrastructure. However, enhancements are still needed in digital infrastructure and access, particularly in rural areas.

**R&D and innovation capabilities:** South Africa has a strong R&D presence in certain sectors such as mining, agriculture and healthcare, but closer collaboration between universities, industries and government bodies is crucial to fostering an innovative ecosystem. Unfortunately, though, GERD as a percentage of GDP has been declining over the decade to 2024; this decline continued from 0.76% in 2017/18 to 0.61% in 2021/22. To date, the primary financiers of R&D have been businesses, government bodies and international sources, with considerable parliamentary funding being available for specific projects in 2023/24 to institutions that resort under the DSTI. Whereas a decline in overall R&D expenditure is of concern to the NSI, the continuing decline in the development of experimental development as a proportion of total research expenditure is of great concern to the TIA specifically.

Table 3 shows that expenditure on experimental development declined precipitously from 36.3% in 2011/12 to 23% in 2021/22. This was from a high of approximately 46% in 2006/07. Experimental development entails the systematic process of using both existing and new knowledge to produce new or improved products or processes and it accounts for the bulk of GERD in leading countries.

Table 3: Expenditure by type of research in South Africa (2012/13–2021/22)

| Year | GERD R'000 (%) | Basic research R'000 (%) | Applied research R'000 (%) | Experimental development R'000 (%) |
|---|---|---|---|---|
| 2012/13 | 23 871 219 | 6 030 827 (25.3) | 11 064 247 (46.3) | 6 776 146 (28.4) |
| 2013/14 | 25 660 573 | 6 102 085 (23.8) | 12 132 211 (47.3) | 7 426 277 (28.9) |
| 2014/15 | 29 344 977 | 7 133 213 (24.3) | 14 331 016 (48.8) | 7 880 748 (26.9) |
| 2015/16 | 32 336 679 | 8 209 662 (25.4) | 15 349 070 (47.5) | 8 777 948 (27.1) |
| 2016/17 | 35 692 973 | 9 542 644 (26.7) | 17 061 167 (47.8) | 9 089 162 (25.5) |
| 2017/18 | 38 724 590 | 10 223 956 (26.4) | 20 623 856 (53.3) | 7 876 778 (20.3) |
| 2018/19 | 36 783 968 | 10 364 091 (28.2) | 19 316 433 (52.5) | 7 103 444 (19.3) |
| 2019/20 | 34 484 862 | 11 043 171 (32.0) | 16 074 948 (46.6) | 7 366 744 (21.4) |
| 2020/21 | 33 541 332 | 9 856 349 (29.0) | 15 848 231 (15.0) | 7 836 752 (23.0) |
| 2021/22 | 38 185 599 | 11 148 327 | 18 380 000 | 8 657 271 (23.0) |

*Source: South African National Survey of Research and Experimental Development Statistical Report 2021/22*

### 8.1.5 Legal factors

**Intellectual property rights (IPR):** South Africa has sound IPR legislation which encourages innovation. However, its enforcement remains a challenge, a situation which could deter foreign and domestic investors from investing in innovative projects.

**Compliance and standards:** Compliance with international standards and local regulations is necessary for innovation if it is to be regarded as worthy and acceptable. Whereas South Africa maintains a culture of regulation, standards and compliance, any variability in legal interpretations, on the one hand, and overly rigorous bureaucratic processes, on the other, display a tendency to hamper or slow down innovation.

### 8.1.6 Environmental factors

**Sustainability and green innovation:** Sustainability and green technologies are gaining increasing attention, supported as they are by policies that promote renewable energy and sustainability practices. Such a focus can have the positive effect of spurring on innovation in environmental technologies and sustainable practices.

**Resource availability:** South Africa's rich natural resources present opportunities for innovation in the mining, agriculture and renewable energy sectors. However, the challenges of environmental degradation and resource management must be taken into consideration if these opportunities are to be exploited and sustained.

In summary, the external environment analysis reveals that TIA can make a greater impact by leveraging its strategic partnerships and networks to enhance its ability to deliver on high catalytic innovations. In addition, the Agency can enhance its value proposition by managing flagship programmes of the DSTI such as the Innovation for Inclusive Development and the Technology Stations programmes.

The TIA also needs to forge stronger relationships with its shareholder and the other stakeholders to ensure that there is a strong appreciation for innovation that aims to resolve the social, economic and environmental challenges that exist across all the spheres and levels of government. The Agency therefore needs to enhance its employee value proposition to enable it to compete more favourably for scarce resources in the labour market while at the same time retaining its key staff.

## 8.2 INTERNAL ENVIRONMENT ANALYSIS

### 8.2.1 TIA's performance during the 2020–2025 strategic period

During the 2020/21–2024/25 strategic period the Agency set out to perform against the identified three outcome areas: commercialising innovations, delivering on the Bio-economy Strategy and supporting SMMEs through Technology Stations.

Actual performance against these outcomes reveals that, in respect of Outcome 1, the Agency has achieved the commercialisation of 216 technologies against a planned medium-term target of 175. In the implementation of Outcome 2, 160 bio-based technologies have been demonstrated against a medium-term target of 75. In addition, 474 bio-based entrepreneurs and organisations were enabled to access SET services to date against a target of 600. Moreover, it is still possible for the Agency to achieve this target as the implementation of the 2020–2025 strategy will be completed on 31 March 2025. Furthermore, a total of 10 942 SMMEs have accessed SET services to date against a medium-term target of 15 750; again, the Agency still has an opportunity to meet this target by the end of March 2025. Table 4 depicts the Agency's performance against its outcome indicators during the period under review.

Table 4: TIA's cumulative outcome performance for the period 2020/21–2024/25

| Outcome | Outcome indicator | Baseline | Planned five-year target | 2021/22 performance (target) | 2022/23 performance (target) | 2023/24 performance (target) | Cumulative four-year achievement (target) |
|---|---|---|---|---|---|---|---|
| **Commercialised innovations** | Technologies commercialised | 77 | 175 | 49 (31) | 61 (40) | 80 (45) | 216 (125) |
| **Delivering on the bio-economy strategy** | Successfully demonstrated bio-based technologies | – | 75 | 36 (12) | 37 (15) | 50 (18) | 160 (54) |
| | Bio-based entrepreneurs and organisations accessing SET services | – | 600 | 45 (110) | 67 (120) | 197 (130) | 474 (465) |
| **SMMEs supported through Technology Stations** | SMMEs accessing SET services | 10 530 | 15 750 | 3 167 (3 150) | 2 671 (3 250) | 3 114 (3 400) | 10 942 (12 190) |

### 8.2.2 Commercialised innovations

The TIA has enabled the commercialisation of more than 250 innovations over the past five years. The Agency provides financial and non-financial support to help innovations to commercialise. A direct funding approach model has been used to provide financial support to beneficiaries through various funding programmes using a range of financial instruments; these instruments have included grants, conditional grants and loan instruments. In this capacity, the Agency funds and manages investments directly, relying on its internal staff to manage the full project life-cycle process.

Figure 1 depicts the sectoral breakdown of those innovations the TIA has commercialised in the past ten years. ICT accounts for the highest number of commercialised innovations (42% of the total, or 110 innovations), followed by health (21% or 54) and advanced manufacturing (11% or 29).

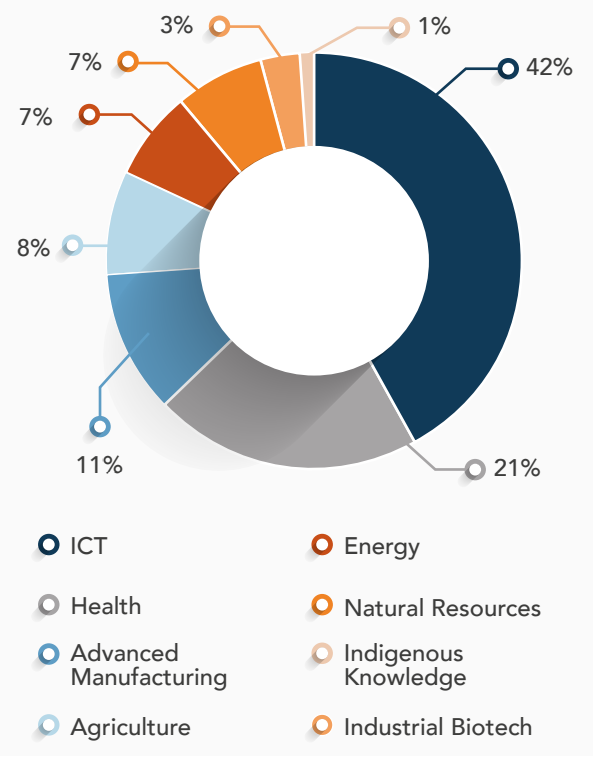



Figure 1: Business unit breakdown of commercialised innovations

The TIA has made investments in innovations that align with the Agency's strategic direction through focusing on technologies that impact on issues of climate change, socio-economic development and sustainability. Balancell is an example of a TIA investee which has products that have been commercialised. It is a future-focused innovative technology business that develops 'smart' batteries which are designed to manage and protect themselves and to report their use and condition remotely.

Similarly to other TIA investments, companies funded in the information and communication technologies (ICT) sector contribute to job creation at the point of commercialisation through direct employment, and indirectly through the value chain in which they sustain suppliers, manufacturers, logistics firms, and infrastructure companies such as cloud hosting providers. As these companies grow, they contribute to South Africa's tax revenue and the development of specialised skills, including those in the Fourth Industrial Revolution domain. In addition, these innovations can have a significant social impact as they diffuse into the market. This phenomenon is exemplified by Pelebox's efforts to improve access to chronic medication in underserved communities in southern Africa. PeleBox is a smart locker system that streamlines medication collection at public clinics. With this system, patients can collect their medication within minutes, reducing wait times and administrative burdens. The system also provides real-time data on medication collection and has the potential to save patients' time and money on travel costs.

The TIA has demonstrated its commitment to advancing local innovation and building resilience in South Africa's healthcare sector through its pivotal role in responding to the challenges of the COVID-19 pandemic. By partnering with the DSTI and the South African Medical Research Council, the Agency has contributed significantly to the COVID-19 Innovation Fund. This initiative prioritised the development of locally produced medical solutions to reduce reliance on imported products and strengthen South Africa's pandemic response.

One of the Innovation Fund's notable achievements was the development of a locally manufactured COVID-19 antigen test by Medical Diagnostech (Pty) Ltd. This rapid diagnostic test, authorised by the South African Health Products Regulatory Authority (SAHPRA), is affordably priced at less than R50. It delivers results in just 15 minutes and has been critical in expanding testing capacity nationwide.

Another significant success has been the production of Cape Bio's polymerase chain reaction diagnostic kit, which has been approved by SAHPRA. This test, developed by South African scientists, provides results in just 65 minutes, and met the need for fast, accurate diagnostics during the height of the COVID-19 pandemic. The local manufacture of these kits represented a major milestone in reducing dependence on imported diagnostic tools while also serving to strengthen the country's biotechnology sector.

Through these initiatives, the TIA has played an instrumental role in ensuring that South Africa is better prepared for future health emergencies. By driving the development and local production of essential medical technologies, the Agency is helping to strengthen South Africa's healthcare system, making it more resilient for future challenges.

### 8.2.3 Commercialisation pipeline and outputs

***Technology Development Pipeline***

The TIA has more than 600 projects under management across its various sectoral focus areas and programmes as shown in Figure 3. An analysis of the most promising of these regarding the prospects for successful commercialisation identified 214 projects that are close to going to market. Figure 2 shows these projects according to Technology Readiness Level (TRL) and the relevant division or programme. These same 214 projects in the Agency's portfolio are at the level of TRL6 or higher, meaning that the technology (system, subsystem model or prototype) has at the very least been demonstrated in a relevant environment. This analysis shows that the TIA is fulfilling its core mandate of de-risking technologies as they move towards commercialisation, underscoring the need for further funding still needed to develop these technologies further towards commercialisation.

Figure 3 indicates the number of technology projects at each of the eight TRL levels (TRL2–9). The Agency has the highest number of projects currently at TRL3 (n=190) followed by those at TRL5 (n=129). Projects at TRL3 focus on de-risking public-funded IP from universities and science councils and in some instances SMMEs, which is where the TIA's core mandate lies. In alignment with the Agency's strategic direction, more investments will be made on projects that are aimed at decarbonisation and net zero emissions. The aim is to support the government's coordinated and integrated response to climate change and its impacts as promulgated in the Climate Change Act 22 of 2024. The key focus will on be programmes and projects in the areas of electrification, hydrogen, carbon capture and the national power grid.

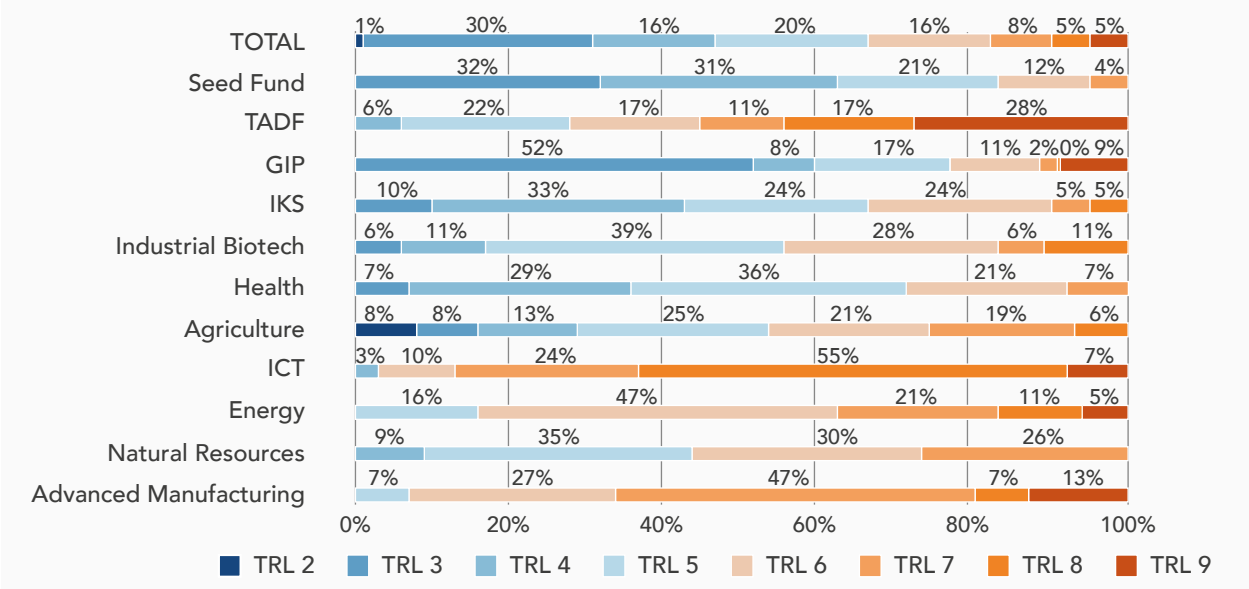



Figure 2: TIA's project portfolio across its various thematic areas according to their TRL

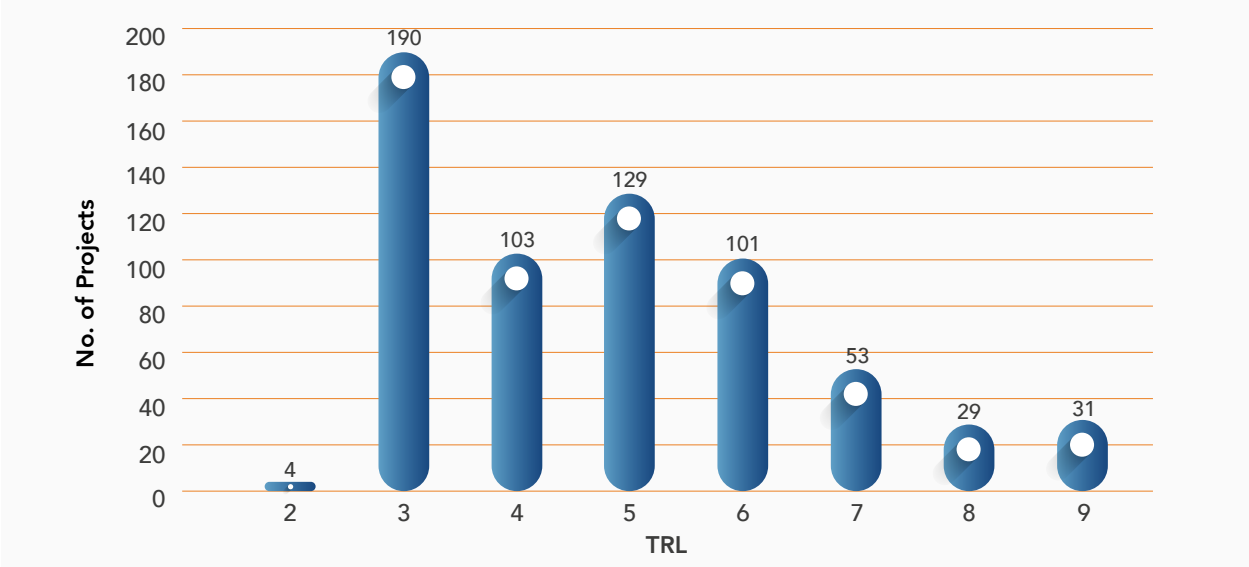



Figure 3: Portfolio of projects under management

## 8.3 PLANNED STRATEGIC INITIATIVES

### 8.3.1 Embedding the TIA 2.0 Corporate Strategy

The TIA has adopted a new 2.0 Corporate Strategy (TIA 2.0) that is framed around both direct and indirect funding approaches, with a business model that expands the TIA into a Fund-of-Funds and the implementation of catalytic high-impact SIPs. The Corporate Strategy seeks to position the Agency as a Curator in the innovation ecosystem. The Strategy represents a transformative journey of the organisation, over a period of 10 years, in which it transitions from a low impact transactional model into a higher impact programmatic approach that promotes collaboration. This involves building the requisite institutional capabilities to equip the Agency with capabilities that positions it as a trusted partner to curate the NSI in the future.

In this regard, the Corporate Strategy envisages the organisation evolving into an effective Curator in the NSI in three phases consisting of Consolidate, Grow, and Scale. The current five-year Strategic Plan, therefore, embodies efforts to embed the first two phases of the journey towards TIA 2.0. In this, the Agency will work to strengthen its role of effective innovation curation, ensuring that supported innovations transition seamlessly through the value chain towards successful commercialisation. A key positioning of TIA 2.0 is that it assumes a critical role as a Curator of the innovation ecosystem which embraces a systems approach to innovation. In this capacity it will work with other partners in the NSI to drive a quadruple helix approach to planning, resourcing and executing high-impact initiatives.

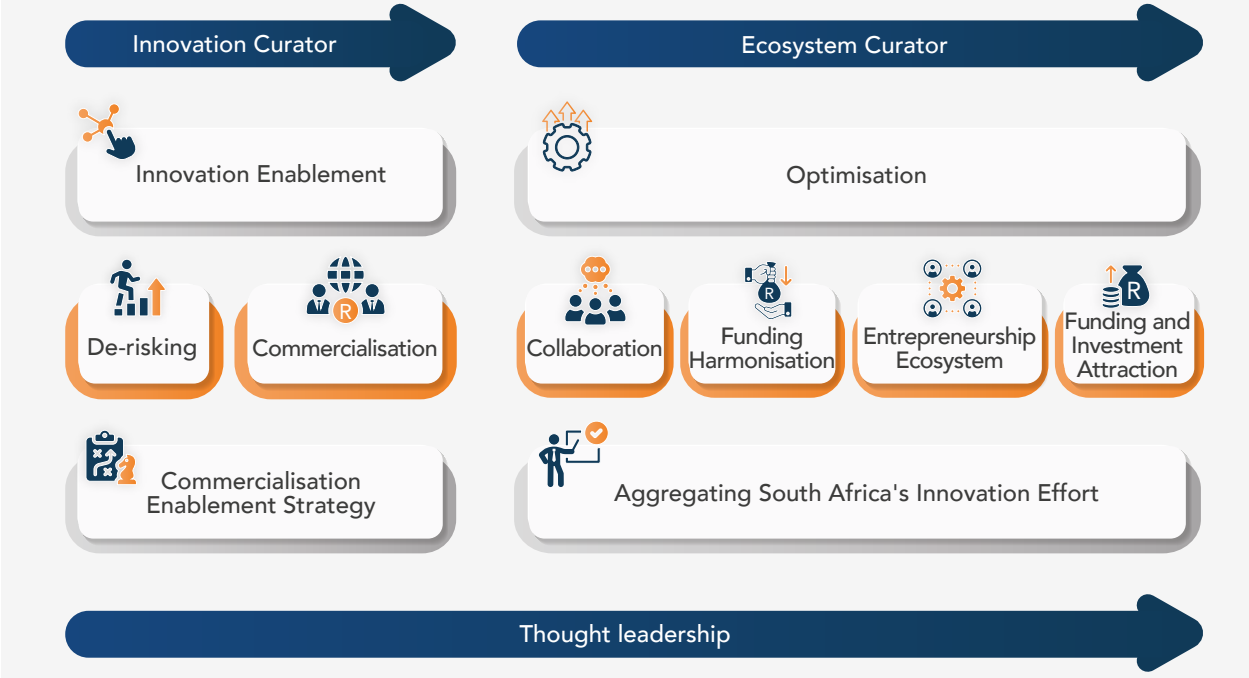



Figure 4: An illustration of the TIA's curatorship role

In the five-year strategic period ahead, the TIA will pursue the three outcomes identified as apex priorities in the MTDP as agreed on by the 7th administration. These three outcomes are: inclusive growth and job creation, reducing poverty and the high cost of living, and developing a capable and developmental state. In the current planning cycle, the Agency will pursue several key strategic initiatives aimed at embedding the Corporate Strategy with a specific focus on the Consolidate and Build phases.

### 8.3.2 Institutional building and repositioning

Successful execution of the TIA 2.0 Corporate Strategy hinges on a properly capacitated organisation that possesses adequate institutional capabilities to play an effective curatorship and leadership role in the NSI. The new business model, consisting of SIPs. Fund-of-Funds and the direct funding approach, implies that the Agency's capacity to deliver on the strategy has to be significantly scaled up with people that are highly skilled across different disciplines in both the core and the support functions of the Agency.

This has to be underpinned by scaled-up operational capabilities where business processes are optimised and digital transformation is adopted as a modality for doing business in the future. Repositioning the TIA will be aimed at increasing the organisation's visibility, growing its brand equity and showcasing its output and impacts in a manner that effectively promotes a culture of innovation and showcases the achievements of the government's investments in innovation. Through these measures, international investors will be attracted when they view South Africa as a destination in which to source innovative solutions that solve global challenges.

***Enhanced innovation curation***

Enabling the commercialisation of promising ideas and innovations from publicly funded IP remains at the core of the TIA's mandate. Although the Agency has supported a range of innovations during the previous strategic period, the current socio-economic context requires that the Agency explore a variety of approaches to increase the rate at which it can accelerate early-stage ideas to higher levels of maturity, and by so doing increase its commercialisation success rate.

Curating innovation will involve the process of directing resources in the NSI towards innovation in sectors that possess great potential to contribute to South Africa's socio-economic challenges. In this, the TIA will pursue a process by which it selects and funds the most promising ideas and brokers linkages with other partners and actors in the innovation ecosystem to ensure that innovations progress seamlessly through the innovation value chain towards their commercialisation. In this way, the Agency will foster the alignment of existing government funding instruments, promoting synergies in funding processes and pooling and sharing expertise among various partners. Key to the success of this venture will be partnerships and linkages with existing entrepreneurship ecosystem builders and venture capital companies to share knowledge and prevent or overcome bottlenecks in the innovation value chain.

***Enhancing commercialisation***

Initiatives and measures to enhance the commercialisation of locally developed innovations will constitute an important area of the TIA's future efforts in the current planning cycle. Here, the Agency will build on its record of success that saw 260 technologies commercialised and it will aim to more than double this effort in the future. To this end, the Agency will implement its newly adopted Commercialisation Enablement Strategy that identifies specific interventions across six impact areas of internal institutional capabilities: strengthening the technology transfer system, promoting the entrepreneurship ecosystem, building talent to grow and strengthen the number of founders to increase startup formation and success rates, and implementing a Venture Builder Programme in the private sector along with Technology Parks in partnership with other government departments.

***Promoting collaboration***

The competitiveness of innovation is an important precondition for driving transformative change and seismic shifts in South Africa's growth efforts and trajectory. Towards meeting this precondition, the TIA, working with its partners, will lead the country's efforts in harnessing the results of those investments the country makes in STI. South Africa's future sustainable economic growth prospects will largely be driven by harnessing the opportunities offered by the digital economy and the green revolution as a response to climate change. These are massive efforts that dictate an enhanced and deepened multi-stakeholder collaboration based on quadruple helix approaches to innovation.

Towards achieving this goal, the TIA will play an increasing role in leading efforts to promote collaborative innovative initiatives that will enhance the initiation, implementation and execution of high-impact SIPs. Such programmes will be tasked with pooling resources, knowledge, expertise and infrastructure capabilities and obtaining funding from all sectors of society, inclusive of government, the private sector, the research community and civil society.

In doing so, the TIA will scale up its existing portfolio of Technology Innovation Clusters in health, energy and agriculture, positioning this as STI's contribution to the various sectoral master plans. In addition, new SIPs will be established through National Thematic Networks as modalities with which to harness resources and structure strategic programmes for investments aligned to the key priorities of the Decadal Plan. There are already some low-hanging opportunities, such as hemp, cannabis and hydrogen, that offer immediate opportunities around which to launch new programmes.

***Positioning South Africa as a destination for innovation***

South Africa's investment in STI needs to be aggregated in a manner that will showcase the country as an investment destination for international funders. Much of this happens in various forms, albeit largely in selected areas of excellence. An aggregated approach holds greater potential to showcase South Africa's government and private sector investments in STI capabilities and outputs to the global investment community in a manner that represents the country's value proposition holistically. The TIA will accordingly plan and launch an annual South African Innovation Week as the apex event in the country that showcases start-ups and the research capabilities at our universities and science councils, our research and innovation infrastructure and a wide range of innovations produced as a result of government investments and the private sector.

The proposed TIA 2.0 business model promotes the formation of multi-stakeholder Sector Thematic Networks that will bring together partners in the NSI from the research community, industry, the entrepreneurship ecosystem, government and international partners to conceptualise and motivate for the establishment of an SIP with a view to pursuing innovation programmes in specific areas of technology domains. The TIA 2.0 business model will feature SIPs as one of the key areas of focus.

***Institutionalising the Decadal Plan***

Through its Corporate Strategy, the TIA will be positioned effectively to deliver on the strategic priorities of the Decadal Plan and to realise the MTDP priorities through STI. The Agency has therefore arranged these into five thematic impact areas on which its capacity and capability will be built.

Table 5: TIA Decadal Plan thematic areas

| Thematic area | Objectives | Focus area |
|---|---|---|
| **Advanced Manufacturing and Industrial Modernisation** | – Modernise the manufacturing sector to enhance competitiveness and create jobs<br>– Leverage South Africa's mineral wealth for value-added processing and advanced manufacturing | – Industry 4.0 Technologies in manufacturing<br>– Value-added minerals processing and beneficiation<br>– Advanced manufacturing and skills development |
| **Agricultural Innovation and Food Security** | – Enhance agricultural productivity and sustainability to ensure food security<br>– Modernise agriculture through technology to create jobs and support rural development | – Agri-tech solutions<br>– Sustainable farming practices<br>– Agro-processing value chain development |
| **Health Innovation and Wellbeing** | – Improve healthcare delivery and outcomes through innovative technologies<br>– Respond to public health challenges such as HIV/AIDS, tuberculosis and non-communicable diseases | – Telemedicine platforms and health information systems for digital health<br>– Affordable medical devices and diagnostics technologies<br>– Health research and innovation |
| **Energy Sustainability and Environmental Innovation** | – Ensure reliable and sustainable energy access to support economic growth<br>– Promote environmental sustainability through innovative practices and technologies | – Renewable energy technologies<br>– Innovation for energy efficiency<br>– Environmental technologies in waste, water and pollution |
| **Digital Transformation and Inclusive Innovation** | – Drive economic growth and inclusivity through digital technologies<br>– Ensure that innovation benefits all segments of society, particularly marginalised communities | – Artificial intelligence<br>– Transformative digital innovations<br>– Innovation for inclusive development |

Translating the Decadal Plan priorities into action therefore requires an approach to embedding this in the organisation's structure in a way that will maximise effective implementation. Each of the key priorities in the Decadal Plan will be pursued and executed through the three pillars of the TIA 2.0 business model consisting of the NSI Curator, the Fund-of-Funds, and the Innovation Curator initiatives as depicted in Figure 5 below. TIA's Thematic Impact Areas have been crafted based on the strategic priorities of the MTDP, the priorities and goals of the White Paper on Science, Technology and Innovation, the Decadal Plan on Science, Technology and Innovation, and the Agency's existing/historical programmatic priorities and sectoral themes. These will therefore seek to redirect TIA's existing efforts in a synergistic and collaborative fashion to address NSI and national priorities and imperatives through pooling resources and efforts, internally and externally.

For the **Advanced Manufacturing and Industrial Modernisation** Thematic Impact Area, TIA seeks to address two of the Decadal Plan's STI priorities through supporting the modernisation of the manufacturing sector to enhance competitiveness and create jobs, and linked to this, supporting the process of leveraging the country's mineral wealth in order to create value-added processing and advanced manufacturing. In so doing, TIA will bring together its existing advanced manufacturing, ICT, natural resources, industrial biotechnology and innovation skills portfolios, plus the Technology Stations Programme.

TIA will seek to join forces and synergise with external stakeholders such as the Council for Scientific and Industrial Research and Mintek. Candidate initiatives for the Agency to consider partnering with would include the Advanced Metals Initiative, the Mandela Mining Precinct and the Centre for the Fourth Industrial Revolution, amongst others.

TIA's **Agricultural Innovation and Food Security** Thematic Impact Area will address the Decadal Plan's agriculture STI priority through enhancing productivity and sustainability and modernising the sector, with the objectives of supporting food security, creating agricultural jobs and supporting rural development. The agency's efforts will centre primarily on its agriculture portfolio, with contributions from its advanced manufacturing, innovation for inclusive development, indigenous knowledge systems and ICT portfolios, plus some Technology Stations and Technology Innovation Clusters.

TIA has already made great strides implementing the Agriculture Bioeconomy Innovation Partnership Programme, and this collaborative approach will be emulated as it seeks to partner with external parties such as the Agricultural Research Council.

The Agency's **Health Innovation and Well-Being** Thematic Impact Area seeks to address the Decadal Plan's health innovation STI priority. This has the dual objectives of improving healthcare delivery and outcomes through innovative technologies and respond to the major public health challenges of HIV/AIDS, tuberculosis and non-communicable diseases. TIA's health portfolio and its health-focused Technology Platforms and Technology Innovation Clusters would form the core of the Agency's efforts, with contributions from its advanced manufacturing,

ICT and indigenous knowledge systems portfolios. The Strategic Health Innovation Partnerships Programme being implemented by the South African Medical Research Council is one major initiative for the Agency to consider partnering with.

The **Energy Sustainability and Environmental Innovation** Thematic Impact Area will respond to the Decadal Plan's energy sector innovation and circular economy STI priorities, but also the climate change and environmental sustainability societal grand challenge. The objectives of this area include ensuring reliable and sustainable energy access for economic growth and promoting environmental sustainability through innovative practices and technologies.

TIA's energy and natural resources portfolios and its energy-focused Technology Station and Technology Innovation Cluster would constitute the core of the Agency's efforts, with contributions from its ICT, advanced manufacturing and industrial biotechnology. A possible initiative for TIA to partner in would be Hydrogen South Africa, as well as the initiatives being implemented under the Waste Research, Development and Innovation Roadmap and the Water Research, Development and Innovation Roadmap.

TIA's **Digital Transformation and Inclusive Innovation** Thematic Impact Area seeks to address the Decadal Plan's digital economy and innovation for inclusive development STI priorities, with the objectives of spurring economic growth and inclusivity through digital technologies, and ensuring that innovation benefits all of society, especially marginalised communities. TIA's focus will be on its ICT, innovation for inclusive development and indigenous knowledge systems portfolios, complimented by all the Agency's existing portfolios. A key programme for TIA may involve actively coordinating and curating innovation within the national AI ecosystem, fostering collaboration among the Artificial Intelligence Institute of South Africa, researchers, industry and tech entrepreneurs. Additionally, TIA would consider consolidating initiatives aimed at developing and deploying next-generation internet/broadband connectivity systems, working with partners such as the national SA Connect project, telecommunication companies, wireless internet service providers, innovators and relevant public entities. The Agency will continue to build on the successes of its Grassroots Innovation Programme, Living Labs Pilot programme and its Centres for Innovation and Entrepreneurship. This notwithstanding, it is recognised that AI will also cut across all other Thematic Impact Areas.

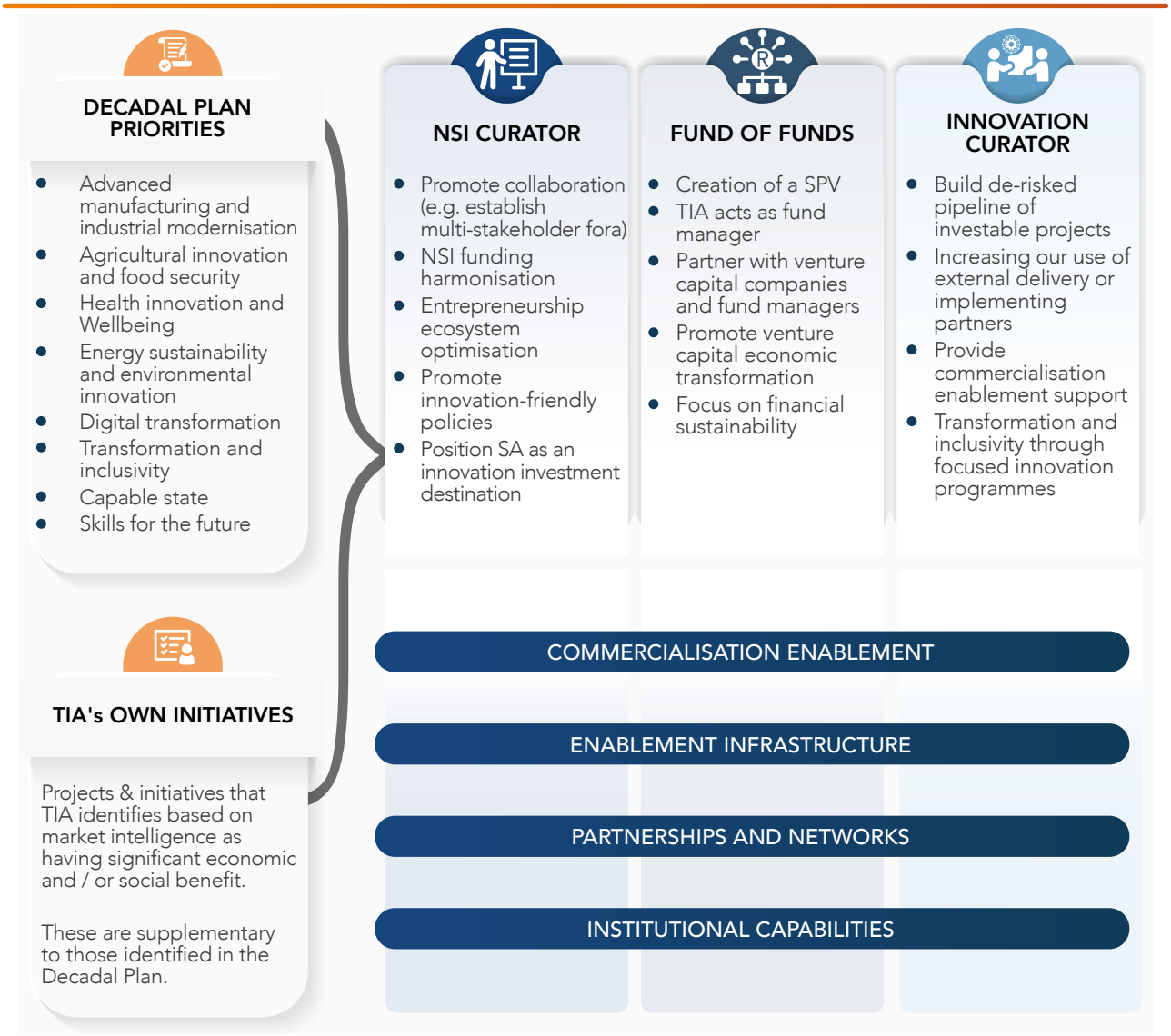



Figure 5: Implementing the Decadal Plan through TIA 2.0 business model

The TIA 2.0 business model consists primarily of three pillars.

The first, the **NSI Curator**, where TIA will implement catalytic high-impact innovation programmes that promote multi-stakeholder collaboration in developing interventions that address major socio-economic and industry challenges. In this, TIA will promote the structuring of and investments in large-scale, multi-year and multi-stakeholder SIPs that are both mission-oriented and collaborative. These will be initiatives that are sufficiently catalytic to change existing industries and build new ones by leveraging South Africa's R&D capabilities and competencies in the public, private, and civil-society sectors. TIA will collaborate with the DSTI to frame and implement initial set of SIPs in Vaccine Manufacturing, Hydrogen, and Space Science as the initial set of opportunities.

The second is the establishment of a fully-fledged **Fund-of-Funds** programme where TIA will collaborate with the venture capital sector and promote the growth of both black and women fund managers. It is the modality through which the Agency will crowd-in private sector involvement and partnership towards attaining the Decadal Plan's priorities. The Agency will also establish a Special Purpose Vehicle (SPV) with the requisite Treasury PFMA Exemptions to house equity on behalf of the state from the investments, using the returns to support the furtherance of its mandate. Fund managers will form an important component of TIA's delivery model where they will play a greater role in scouting for innovative ideas amongst entrepreneurs and SMMEs providing them with post-investment support and scale up towards commercialisation.

The last pillar is the **Innovation Curator**, an approach that retains TIA's existing direct funding model, in which the organisation directly funds projects from SMMEs and the research communities, and is responsible for full project life-cycle management, relying on its internal capabilities. This approach incorporates an increased reliance on the use of delivery partners within the NSI, such as Offices of Technology Transfer and innovation support intermediaries, including incubators and accelerators. These are responsible for opportunity sourcing, funding, and provision of post investment support.

In deepening its Innovation Curator role, the Agency will deploy this partnership model with greater intensity and increase its use of delivery or implementation partners. This role remains critical to the TIA in providing early-stage, high-risk funding for innovative ideas, with a view to creating a pipeline of de-risked opportunities for follow-on funders and investors. This a space in which the Agency manages the risk of market failure, particularly where IP from public research output requires greater support. Through this approach, the Agency also responds to the expanded definition of innovation that provides for the inclusion of segments of society that operate outside of the formal systems of innovation.

A critical component of strengthening the TIA's Curator role is implementing its newly adopted Commercialisation Enablement Strategy. The Strategy places a great emphasis on modalities to partnering with the private sector, the latter being mainly crucial in promoting commercialisation by driving innovation, investment, and providing route-to-market opportunities for technologies developed either by SMMEs or research organisation. In line with the recommendation of the National Treasury Spending Review, the Commercialisation Enablement Strategy identifies interventions such as the Centres of Competence and deployment of the Sector Innovation Fund as some of the key interventions to crowding-in private sector role in TIA's innovation and enhanced commercialisation efforts.

## 9. BUDGET ALLOCATION FOR 2025–2030

In delivering on the revised business model comprising a direct funding model, a Fund-of-Funds and SIPs, the TIA will be required to intensify its efforts to build partnerships that will bolster the execution of its mandate through co-funding initiatives and the exploitation of resources and other forms of expertise and capabilities across the NSI. This will enable the TIA to continue playing an important role in promoting collaboration and co-ordination with other players in the NSI, in both the government and the private sectors. As a result, the Agency will look to supplement its MTEF allocation with additional income leveraged from partners to the value of R1,5 billion over the projected five-year period. This will include anticipated support from the Agency's shareholder in respect of the continuing funding of the Innovation Fund through the Fund-of-Funds business model pillar.

Key to the delivery of the revised business model will be ensuring that the TIA is equipped with the suitable human resources required to deliver on the strategy, including the skills needed to drive the SIPs. The Agency will also require the unique skills needed to supplement its intelligence and research capabilities in support of its thought leadership role. Secondly, the Agency will ensure that its mandate is delivered through a process of enhancing its digital transformation in addition to the optimisation of its systems and processes in order to ensure that it attains the necessary levels of efficiency and effectiveness.

In line with its zero-based budgeting methodology, the TIA's budget is aligned closely to its strategic goals. All the components of the annual budget are therefore both relevant and cost-effective, based on the reviews of previous years' budgets. By implementing robust financial management, planning and control, the Agency continues to strive to ensure that 90% of the funding received is directed at investment-related expenditure. This stringent target ensures that costs are maintained at the lowest possible level and that all financial efficiencies are maximised. For the forthcoming projected period (2025/26–2029/30), the funds associated with these efforts are indicated on the following page.

Table 6: Technology Innovation Agency - five-year Strategic Budget plan 2025/26 to 2029/30

| | Budget 2025/26 R' 000 | Budget 2026/27 R' 000 | Budget 2027/28 R' 000 | Budget 2028/29 R' 000 | Budget 2029/30 R' 000 | Total over 5 years R' 000 |
|---|---|---|---|---|---|---|
| **Administration** | **181 904** | **188 836** | **201 390** | **214 390** | **228 675** | **1 015 195** |
| Support and infrastructure cost | 51 077 | 52 122 | 54 833 | 57 574 | 60 568 | 276 175 |
| Human resources | 130 827 | 136 714 | 146 557 | 156 816 | 168 107 | 739 020 |
| **Investments** | **417 458** | **458 591** | **670 153** | **850 692** | **932 106** | **3 328 999** |
| Bio-economy | **158 183** | **173 029** | **235 790** | **250 274** | **267 514** | **1 084 791** |
| Technology stations | **96 735** | **99 110** | **103 901** | **113 010** | **125 025** | **537 782** |
| Commercialisation | **82 921** | **96 554** | **141 574** | **186 653** | **192 199** | **699 902** |
| Innovation Enabling | **79 619** | **89 898** | **188 888** | **300 754** | **347 367** | **1 006 525** |
| **Total Expenditure** | **599 362** | **647 427** | **871 542** | **1 065 082** | **1 160 781** | **4 344 195** |
| **Total funding received** | **599 362** | **647 427** | **871 542** | **1 065 082** | **1 160 781** | **4 344 195** |
| Allocation from DSTI | 420 045 | 458 754 | 531 760 | 558 348 | 587 382 | 2 556 289 |
| Baseline (other than Bio-economy and Technology Stations) | 184 455 | 210 081 | 219 581 | 230 560 | 242 549 | 1 087 226 |
| Bio-economy | 184 430 | 195 170 | 256 257 | 269 070 | 283 061 | 1 187 988 |
| Technology Stations | 51 160 | 53 503 | 55 922 | 58718 | 61 771 | 281 075 |
| Additional income target | 131 817 | 134 568 | 288 301 | 447 092 | 503 355 | 1 505 133 |
| Other income | 34 000 | 40 000 | 36 643 | 44 062 | 53 653 | 208 358 |
| Interest | 13 500 | 14 105 | 14 838 | 15 580 | 16 391 | 74 414 |
| Surplus/(deficit) | **0** | **0** | **0** | **0** | **0** | **0** |
| Capex allocation: | 15 000 | 12 000 | 8 000 | 5 000 | 5 000 | 60 000 |

# PART C:

# MEASURING OUR PERFORMANCE

# PART C: MEASURING OUR PERFORMANCE

## 10. INSTITUTIONAL PERFORMANCE INFORMATION

### 10.1 TIA'S THEORY OF CHANGE

The following theory of change illustrates the Agency's problem statement which is what the Agency seeks to resolve in the upcoming period to ensure the fulfilment of its mandate. The key entry points that the organisation will engage to achieve its pre-determined objectives are highlighted in the activities the organisation will embark upon in the strategic cycle. Key assumptions critical for the achievement of TIA's outcomes and impact have been identified and it is important that these are in place for optimal performance.

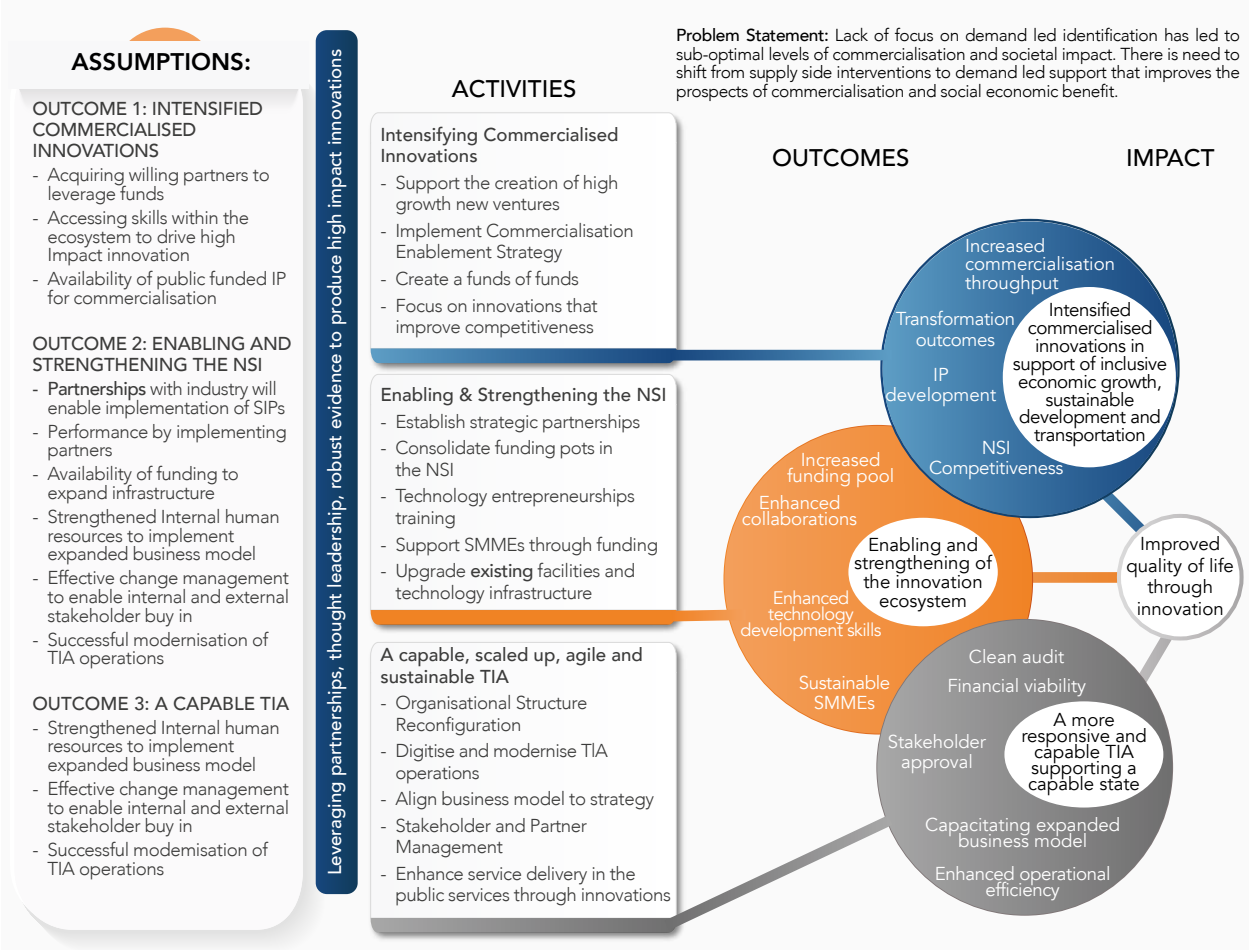



Figure 6: Theory of change

### 10.2 IMPACT STATEMENT

| | |
|---|---|
| **Impact statement** | Improving the quality of life of all South Africans through innovation. |

### 10.3 MEASURING OUTCOMES

#### Outcome 1: Intensified commercialised innovations in support of inclusive economic growth, sustainable development and transformation

| **MTDP Priority 1**<br>**MTDP Priority 2** | **Inclusive growth and job creation**<br>**Reduce poverty and tackle the high cost of living** | | |
|---|---|---|---|
| **Outcome statement** | **Outcome indicator** | **Baseline** | **Five-year target** |
| Intensified commercialised innovations in support of inclusive economic growth, sustainable development and transformation | 1.1 Number of innovations commercialised | 260 | 600 |
| | 1.2 Number of commercialised innovations from publicly funded R&D | New indicator | 300 |
| | 1.3 Number of commercialised innovations that improve competitiveness | New indicator | 150 |
| | 1.4 Number of commercialised innovations by designated groups | New indicator | 360 |

**Explanation of planned performance**

Through this Outcome, the TIA will respond to priority 1 (Inclusive growth and job creation) and priority 2 (Reduce poverty and tackle the high cost of living) of the government's 2024–2029 MTDP.

In this endeavour, the TIA's efforts will be guided by the STI investment priorities as envisaged in the Decadal Plan. Specifically, these priorities focus on revitalising and modernising manufacturing, agriculture and mining and include exploiting new sources of growth offered by the digital and circular economy. Innovation in support of the energy sector that focuses on mitigating and adapting climate change will be supported. This includes the adoption of information and communications technologies, contributing to an increase in GDP and stimulating job creation.

For this outcome, TIA has set an ambitious target of 600 innovations to be commercialised during the period of the MTDP. This target derives from an appreciation of the state of maturity of the South African innovation ecosystem, which is characterised by many actors playing in the late-stage support phase of the innovation value chain. The existing cohort of accelerators, the growing venture capital asset class which is increasingly supporting early-stage seed funding, affords the Agency the confidence that the South African innovation ecosystem is maturing. This, therefore, signals an enhanced capacity by the South African ecosystem to increase the level of commercialisation. The implementation of the new TIA 2.0 business model constitutes three pillars of direct funding, Fund-of-Funds and the SIPs signifies TIA's intentions to intensify commercialisation deploying various strategic approaches.

The efforts to enhance and accelerate the translation of promising innovative solutions from development to market will be underpinned by the TIA's newly developed Commercialisation Enablement Strategy. This strategy will entail promoting interventions that are aimed at strengthening the entity's institutional capabilities that comprise people with expertise in commercialisation who have industry experience. More importantly, interventions such as the Venture Builder Programme, entrepreneurial business support initiatives and many other similar initiatives will seek to promote deeper collaboration between the research community and the private sector.

The TIA will intensify its efforts to enhance the commercialisation of research output from publicly funded IP emanating from universities, science councils and other research institutions in the country. This will represent an area of intensified strategic emphasis by TIA, as it is the one that has proven to be challenging in the past and yet holds the greatest potential to effect significant transformative changes in the South African economy. In this regard, TIA will play an effective role in curating relationships by catalysing connectedness within the innovation ecosystem and build on the solid foundations from its implementation of the Seed Fund.

- As a start, the organisation will implement the recently remodelled Seed Fund Programme that introduces a pre-Seed and Seed Fund, the latter component including building a viable pipeline of commercialisable technologies and enabling activities such as, i.e. access to industry experts, mentorship, venture building, spin-out formation support, market access support, commercialisation strategy development, etc.
- A second initiative will be to promote commercialisation of publicly-funded IP through the curation of relationships with the SMME sector. This will include measures to promote visibility and access to publicly funded IP by SMMEs in the country. This will promote the uptake of IP through brokerage of licensing arrangements, establishment of technology-based spin-offs, and start-ups.
- Thirdly, it will offer support to SMMEs in partnership with National Intellectual Property Management Office in creating awareness around management of publicly-funded IP as guided by the IPR Act and its commercialisation.
- Lastly, introduce initiatives, measures, and instruments to foster collaboration between industry and the research community with a view to align research and industry needs.

TIA will also continue to work closely with the NIMPO, the universities and their Offices of Technology Transfer to resolve capacity challenges and promote linkages with the private sector. More intensive collaboration with the National Research Foundation will also represent a new area of strategic emphasis to overcome the shortage of spending directed at experimental development, which represents an important area from which the Agency can draw on a rich pipeline of output from publicly funded research.

TIA aims to collaborate with the DSTI, the private and academic sectors, and international partners to support the establishment of local vaccine development and manufacturing capabilities. This initiative will be implemented through TIA's execution of the DSTI-led Vaccine Innovation and Manufacturing Strategy. TIA will mobilise resources and utilise its funding modalities, including the proposed Special Purpose Vehicle to support the implementation of the strategy.

The imperatives of transformation and inclusivity remain fundamental to the execution of the TIA's mandate. In this regard, the Agency will continue to build on its past achievements by implementing specific initiatives and programmes that promote transformation in the NSI.

In this regard, TIA has established three specific, stand-alone and distinct transformation programmes to foster intentionality in how it contributes to transformation of the innovation landscape. These are the Youth Technology Innovation Programme, Women in Innovation Programme and Innovation for Persons with Disabilities Programme. These have been added as complimentary instruments to the existing Grassroots Innovation Programme which was designed specifically to support innovators who operate outside of formal systems of innovation and are predominantly based in rural and township communities. Through these

programmes TIA will promote the participation of traditionally marginalised segments of society in innovation, whilst promoting their contribution to the realisation of the Decal Plan priorities in areas such as bioeconomy, renewable energies, agriculture, mining, ICT and the circular economy.

Whereas transformation will extend beyond demographics, it will also pay particular attention to institutional transformation in the research sector and within the entrepreneurship-enabling ecosystem. Finally, transformation will also be pursued through the spatial expansion of the TIA's activities in the underserved provinces or regions of the country. This approach will ensure that the Agency is able to harness the rich knowledge base and entrepreneurial capacity that exists countrywide.

**Enablers**

The following will be critical if the TIA is to achieve its outcomes:

- Instituting the Commercialisation Enablement Strategy.
- Creating a Fund-of-Funds financial pillar which will establish an SPV aimed at crowding in private- and public-sector participation with the purpose of commercialising projects.
- Supporting the creation of high-growth new ventures by harnessing IP.
- Expanding the TIA's commercialisation enablement capacity and its capability to provide post-investment support for investments and a sound revenue-generation model.

**Contribution of outcome to achieving impact**

The TIA will support key national strategic initiatives led by its principal shareholder, the DSTI, and the broader NSI aimed at transforming the growth trajectory of the South African economy. The Agency will embark on concerted efforts aimed at economic transformation and job creation by supporting the exploitation of publicly funded R&D to establish new sources of income for the state by using IP as a tool for economic development. By commercialising innovations, the TIA will be able to de-risk the development of technological innovations by leveraging existing and new partnerships. This will, in turn, enable the Agency to support and commercialise many innovations, which will result in a greater social impact and improve the quality of life of many South Africans.

### Outcome 2: Enabling and strengthening the innovation ecosystem

| MTDP priority 1 | Inclusive growth and job creation | | |
|---|---|---|---|
| **Outcome statement** | **Outcome indicator** | **Baseline** | **Five-year target** |
| Enabling and strengthening the innovation ecosystem. | 2.1 Number of ecosystem collaborations established | New indicator | 25 |
| | 2.2 Number of initiatives to promote harmonisation of funding in the ecosystem | New indicator | 14 |
| | 2.3 Number of measures implemented to strengthen the technology entrepreneurship ecosystem | New indicator | 93 |
| | 2.4 Number of venture capital funds established | New indicator | 15 |
| | 2.5 Total rand value of funding and investment leveraged | New indicator | R1,5bn |

**Explanation of planned performance**

Through this outcome, the TIA will contribute to MTDP priority 1 (Inclusive growth and job creation). The South African innovation ecosystem is dynamic, with many players contributing to the innovation and entrepreneurship agenda in the country. This also happens on the back of a growing research and technology transfer system that is showing the green shoots of an increasing number of technologies being developed and commercialised from publicly funded research.

Scaling up the performance of the ecosystem requires a whole-of-society approach that involves effective collaboration across different segments of society, inclusive of government, private sector, research communities and civil society. The conventional triple helix approach to innovation and collaboration has proved inadequate and ineffective at times in responding to the broad socio-economic challenges facing South Africa. For this reason, a quadruple helix approach is now an internationally accepted norm for driving collaborations that include civil society as an important contributor to conversations and activities that solve the country's challenges.

At the heart of this lies the need to pool resources, leverage expertise and capabilities in the system and across society

and optimise the available funding in the system to promote the realisation of increased dividends from investments made in R&D. The TIA has accordingly chosen to support this need by playing an effective Curator role in a manner that leads to the innovation ecosystem functioning at maximum efficiency. This is one of the key requirements for economic growth that is at once inclusive and transformative, and which leads to job creation. In this regard, the Agency will implement a number of initiatives that aim to promote the outcomes detailed on the next page.

a. Launch initiatives that promote collaborative relationships and partnerships by different actors for the purpose of sharing expertise, infrastructure capabilities, resources and funding. This with a view to launching high-impact programmes and other interventions that overcome key socio-economic challenges. In this regard, the new TIA business model is embedded in the Agency's strategy for the future launch of SIPs framed around key sectors of the economy in which South Africa boasts comparative and competitive advantage.

b. Launch initiatives that promote the pooling and aggregation of the available funding for innovation among key government institutions. This with a view to fostering alignment and increasing access to and efficiency in the allocation of limited fiscal resources. The TIA will work with various Development Finance Institutions, government departments across all spheres, state-owned entities and the various Sector Education and Training Authorities (SETAs) with a view to promoting synergies in funding processes and programmes and leveraging procurement expenditure, among other measures. Additionally, TIA will design and implement initiatives to attract private sector investments in innovation, including through instruments such as the Sector Innovation Fund and the establishment of the Fund-of-Funds programme.

c. An enabling environment for innovation and technology entrepreneurship is a critical success factor for an effective and efficient NSI in South Africa. TIA's approach in this regard is premised on four principles i.e.:

- Adopting a broader conception of innovation as espoused in the White Paper on Science, Technology and Innovation;
- Recognising that sources of innovation are broader than just R&D outputs;
- A whole-of-society approach to innovation embedded in a culture of entrepreneurship; and
- Promoting principles of inclusivity and transformation.

Key interventions to support the strengthening of the ecosystem will be hinged around six strategic enablers, as articulated in Chapter 6 of the Decadal Plan consisting of culture, skills, infrastructure, business support services, partnerships and networks, and innovation governance as depicted below.

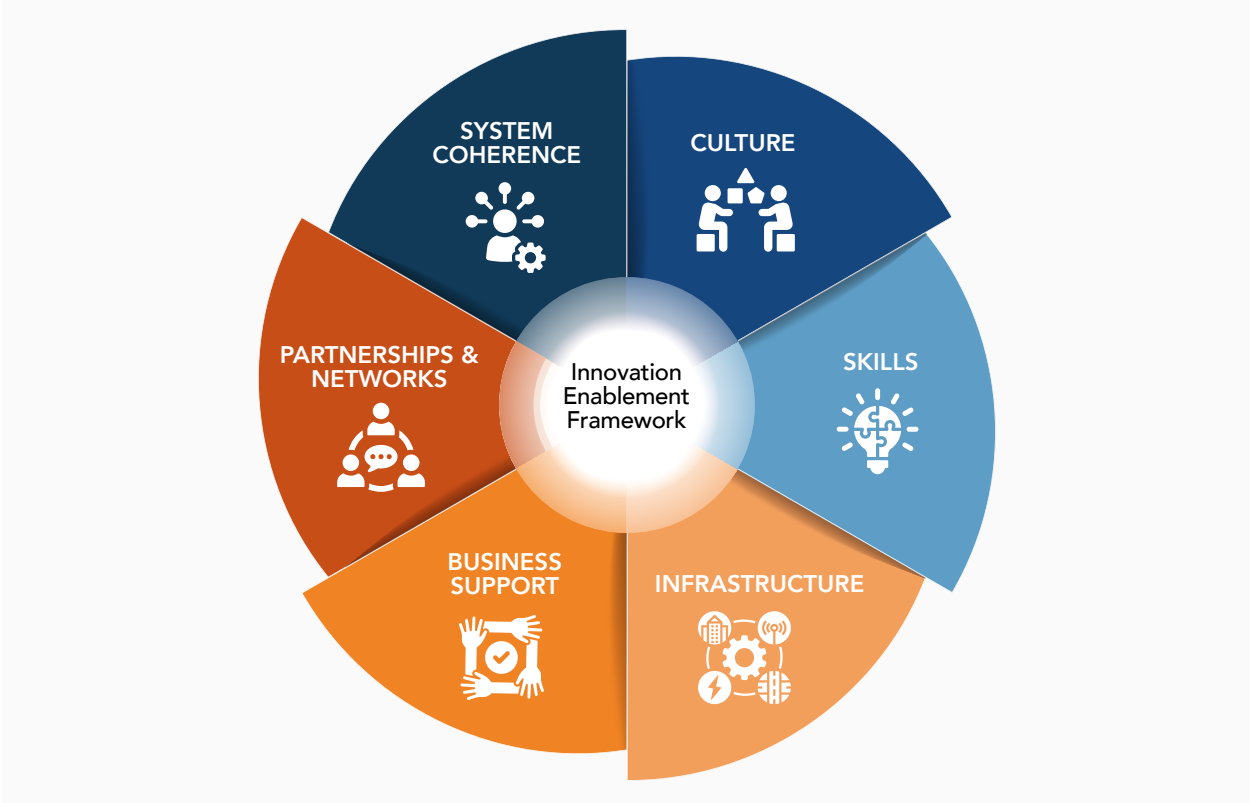



Figure 7: TIA's Innovation Enablement Framework

- **Culture:** Stimulating a culture of innovation aims to promote a vibrant ecosystem characterised by individuals with a strong belief in innovation and their ability to develop life-changing solutions. This requires critical thinking skills, and an appreciation of the processes and activities involved in innovation. TIA will implement a cohesive programmes

targeting youth, women, persons with disabilities, and communities in marginalised societies. These programmes will showcase innovation champions and role models, and partner with relevant institutions to run these initiatives.

- **Skills:** TIA will build on its existing offerings to promote innovation and innovation management skills, commercialisation, and entrepreneurship skills, all of which are intended to strengthen the nascent startup culture in South Africa with a strong cohort of technology entrepreneurs from the research and entrepreneurship communities. In this, TIA will partner with SETAs, many of whom have embraced innovation and innovation skills as an important area of strategic focus in the coming years. Additionally, TIA will look to access funding from the National Skills Fund given its focus to improve the post-school, education and training system, with a focus on capacity building, investing in skills infrastructure, research and innovation.
- **Infrastructure:** RDI Infrastructure is a critical requirement and forms an important part of translation capacity in South Africa. This includes physical facilities and infrastructure bases that provides SET support, enabling researchers and innovators to produce knowledge products, prototypes, demonstrators, etc. TIA currently provides this support through the Technology Stations, Technology Platforms, and a range of R&D for biocatalysis at the Council for Scientific and Industrial Research. There is a need to expand this base and create an opportunity to aggregate the portfolio by enabling and facilitating access to facilities in other science councils. In order to advance the agenda for inclusive growth, TIA will expand its portfolio of its existing Living Labs and Centres for Innovation and Entrepreneurship and invest in other models, such as Fab Labs, whilst partnering with the SETAs in the establishment of Centres of Excellence.

  In order to bridge the gap between academic research and market-ready solutions within the biotech technology sectors, TIA will implement the Bio-entrepreneurship Programme. Through this programme, TIA will invest in Biotechnology Innovation Centres in an effort to strengthen the commercialisation of biotechnologies. This will be built on successes and achievements already gained through the recent establishment of the OneBio Innovation Centre which provides direct support to South African Biotech startups through access to fully equipped, world class shared biotech laboratory and office space, as well as bespoke support and networking opportunities. The equipment in the centre caters for research in the omics field such as genomics, proteomics, metabolomics.
- **Business support services:** This will represent an important component of TIA's service offerings to supplement the funding and ensuring that innovators and entrepreneurs receive support to create startups and take their technologies to market. Services such as business development, marketing communications, corporatisation, and business model development are essential for the establishment of startups. These will be offered through the network of partnerships and the venture builder model and will form part of the organisation's enablement strategy interventions.
- **Partnerships:** The depth and breadth of TIA's mandate and its articulated vision towards TIA 2.0 imply that sound and value creating partnerships are inherently a critical success factor in realising the organisation's objectives. In this, TIA will build on its current base of existing local and international partnerships to leverage resources, promote collaboration, and create positive framework conditions for innovators and entrepreneurs to thrive.

  International partnerships offer an opportunity for South Africa to integrate itself in the global innovation ecosystem and position itself as an important player and partner for those countries looking innovative technologies, developmental impact and knowledge. TIA has established partnerships with countries in the north, such as the United Kingdom, Ireland and France, with whom it implements various joint RDI and soft-landing programmes.

  South Africa's membership of the BRICS offers significant opportunities to strengthen south-south collaboration initiatives. In this, TIA will continue to support the BRICS Innovators Competition under the Young Scientist Forum in which it also participates in the Science, Technology, Innovation and Entrepreneurship Programme Working Group, whilst continuing to deepen its bilateral relations with individual members of the BRICS.

  In this regard, TIA has agreements with the Hubei University of Technology under the framework of China-Africa Innovation Cooperation, and in Russia with the Skolkova Innovation Centre and the Russia Innovation agency, FASIE. During the planning period, TIA will strengthen partnerships with Brazil, building on its long-established cross incubation programme in the agricultural technology sector with IJEX and expand this to other sectors.

  TIA has also begun working with the Biotechnology Industry Research Assistance Council in India to formalise an agreement that will guide collaborations between the two institutions. Key areas of collaboration include creating opportunities for innovation and entrepreneurship, market access and knowledge exchange for innovators in South Africa and India across the various bioeconomy sectors.

  Africa offers significant opportunities for collaboration. As a continent with the largest youth population that is highly entrepreneurial, it has seen significant flows of capital for international investors and venture capital looking for bankable solutions that can drive the continent's growth whilst solving global challenges. With a growing innovation ecosystem, there are vast opportunities to taking advantage of these growing markets, especially in light of the conducive regimes created by the Africa Free Trade Continental Agreement. TIA will also play a role in support the strengthening of

innovation ecosystems in the SADC region and the continent, building on its current Southern African Innovation Collective programme currently running with South Africa, Botswana, Zambia, Tanzania and Namibia.

- **Networks:** TIA will leverage on the strong network of innovation actors, ecosystem builders and various other role players to promote a culture of learning, entrepreneurship, and innovation. These networks serve as an important base from which TIA can draw resources and capabilities, such as skills, expertise, brand-positioning, and the overall strategic positioning of TIA within the innovation ecosystem.
- **Innovation governance:** A whole-of-society approach requires that appropriate mechanisms are put in place to foster collaboration and coordination across the system and amongst multiple players. TIA's primary focus will largely centre around promoting coordination of government innovation funding instruments in a manner that enables seamless progression of innovations along the value chain and creates platforms for pooling of resources and sharing of expertise.

d. In implementing the Fund-of-Funds pillar of TIA's Corporate Strategy, the organisation will establish an Innovation Fund Office that will be responsible for executing the Innovation Fund established by the DSTI and piloted successfully over the last four years. Through this, TIA will contribute to the establishment of black and women fund managers with the view to the establishment of new venture capital funds thus driving much required transformation within the venture capital sector. This will represent an important intervention in accelerating the agenda towards ensuring equitable access to funding and resources towards a more inclusive and sustainable future.

e. TIA aims to attract investments of R1,5 billion over the five-year strategic period. The Agency will work with other partners in the NSI to position South Africa as a preferred destination for investments in innovation. This will entail the launching of an annual South Africa Innovation Week to showcase South Africa's capabilities to the global community using an aggregated approach that positions South Africa's value proposition holistically.

**Key enablers**

- Partnerships with relevant industry stakeholders.
- The availability of funding to establish new infrastructure and upgrade existing facilities.

**Contribution of outcome to achieving impact**

Technology infrastructure and skills development support programmes will enable innovators and SMMEs to commercialise their technologies and improve the competitiveness of their products, which will lead to localised economic growth and job creation. The strengthened curatorship role of the TIA will serve to optimise the NSI through collaborations and partnerships that pool resources together for greater impact and coherence. A more responsive, capable, scaled-up, agile and sustainable TIA.

Instilling a culture of innovation in the public sector by public servants is a critical component towards building a capable state. TIA will partner with relevant institutions in the NSI to facilitate the unearthing, development and implementation of innovative ideas within and throughout the public service. In this, it will partner with institutions such the Centre for Public Service Innovation which plays an important role in facilitating pilot projects aimed at demonstrating the value of innovative solutions, and through activities that create an enabling environment within the public sector to support and sustain innovation. Through active research and knowledge sharing platforms and products, TIA will collaborate with the Centre for Public Service Innovation to identify and promote sharing of lessons and information on innovation trends across government, at local and national levels.

### Outcome 3: A more capable, scaled-up, agile and sustainable TIA supporting a capable state

| MTDP priority 3 | A capable, ethical and developmental state | | |
|---|---|---|---|
| **Outcome statement** | **Outcome indicator** | **Baseline** | **Five-year target** |
| A more responsive and capable TIA | 3.1 Percentage dependency on MTEF funding | 73% | 65% |
| | 3.2 Good governance in respect of positive audit outcomes | Unqualified external audit outcome | Clean external audit opinion |
| | 3.3 Increased operational efficiency | New Indicator | Customer satisfaction level averaging between 8 and 10 |
| | 3.4 Expanded business model capacitated | New Indicator | 95% |
| Innovation in support of a capable and developmental state | 3.5 Number of innovations that contribute to an efficient way of delivering a service by government | New indicator | 30 |

**Explanation of planned performance**

Through this outcome, the TIA will contribute to MTDP priority 3 (A capable, ethical and developmental state). In achieving this, the Agency recognises itself as a capability of the state that should be appropriately positioned and capacitated to support the state in delivering innovative solutions for service delivery. Therefore, this outcome is primarily aimed at developing a capable, agile, and sustainable organisation, characterised by high levels of efficiency, good governance, and strong institutional capabilities. This will enable TIA to play an effective Curatorship and Thought Leadership roles in the NSI. These are the hallmarks of the TIA 2.0 Corporate Strategy. The Strategic Plan 2025-2030 embeds the first two phases of Consolidate and Grow that aims to deal with a number of intervention areas in the process of achieving a capable TIA. These include the following interventions.

a. Annual performance: The TIA will build on its good track record of performance against its Annual Performance Plan (APP), a record which has, over the years, averaged 90% achievement. The targets set reflect the Agency's commitment to making a positive impact in realising socio-economic imperatives of job creation, poverty reduction, sustainable economic growth, transformation and inclusivity. Key intervention areas centre on enhancing commercialisation, growing the innovation ecosystem and strengthening its efficient functioning. These represent two critical interventions that will increase the government's dividend in the many years of investments in STI.

b. Reduced dependency on MTEF funding: Promoting and ensuring financial sustainability by augmenting the MTEF through new funding instruments, partnerships for funding and implementing innovation programmes on behalf of other partners locally and by exploring other avenues. An important initiative in this regard would be for TIA to position itself as a national, capable resource for implementing innovation programmes on behalf of other partners in the NSI, i.e. industry, development finance institutions, government departments and their entities, and international partners. For this purpose, TIA will develop a hosting framework for innovation programmes that will define management modalities and governance in respect of hosted programmes.

c. Higher levels of revenue from investments will be derived from the TIA's implementation of the Fund-of-Funds model, which will include the establishment of an SPV responsible for holding equity on behalf of the State. Partnering with fund managers and existing venture capital enterprises will provide a greater investment orientation to the Agency's funding philosophy.

d. Good governance: Sound internal controls and a strong combined assurance framework are a critical requirement for an organisation such as the TIA that, in the context of a constrained fiscus, depends on funding partnerships to deliver its mandate and, even more so, on the expanded business model that positions the TIA as an Innovation Curator. The TIA will build on its current combined assurance framework, putting in place measures to maintain clean audit outcomes through strengthened institutional capabilities, internal controls and post-investment management – the last of these arising from a growing portfolio as a result of the increased dynamism of the innovation ecosystem.

e. Operational efficiency: The TIA will implement measures to increase and strengthen its operational efficiencies that promote increased turnaround time as a key outcome. It will do so by means of initiatives that introduce business process optimisation and digital transformation. Alongside this, it will be embedding a culture of customer-centeredness and responsiveness that acknowledges the customer as key. Operational efficiency will be measured against levels of customer satisfaction with TIA's service delivery to key clients and partners, and the outcomes of the Agency's engagement with stakeholders anchored around transparency, openness, and a consultative approach. In this regard, TIA has developed a Strategic Stakeholder Engagement Strategy, underpinned by a Marketing and Communications Strategy.

f. Organisational realignment and capability: The TIA's expanded business model and operating model require the organisation to increase its human resources capacity by taking on board people who are adequately skilled in the key intervention areas that are required to position TIA as an effective Innovation Curator and a Curator in the NSI. Innovation supporting a capable and developmental state: The TIA will also contribute to the ability of government at all levels to deliver services in the various economic and social clusters, such as education, health, housing and security. It will do so by deploying innovative technology solutions, including decision support tools that improve government planning. Critical to this are the operational efficiency challenges that require new and innovative ways of working, including digital solutions for more effective service delivery.

   For this purpose, the TIA will develop and implement a structured programme that aims to promote the use of public procurement as a tool to foster innovation. In this way, the uptake and deployment of locally developed solutions will be increased, with government as the lead buyer. In this respect, the Agency has already demonstrated a number of market-ready technologies through its existing TADF. Accordingly, the TADF will be scaled up into a full programme that will serve as an important approach to creating a test bed and to commercialising locally developed technologies.

   Instilling a culture of innovation in the public sector by public servants is a critical component towards building a capable state. TIA will partner with relevant institutions in the NSI to facilitate the unearthing, development and implementation of innovative ideas within and throughout the public service. In this, it will partner with institutions such the Centre for Public Service Innovation which plays an important role in facilitating pilot projects aimed at demonstrating the value of innovative solutions, and through activities that create an enabling environment within the public

sector to support and sustain innovation. Through active research and knowledge sharing platforms and products, TIA will collaborate with the Centre for Public Service Innovation to identify and promote sharing of lessons and information on innovation trends across government, at local and national levels.

**Key enablers**

- Partnerships with relevant industry stakeholders.
- Availability of funding through an SPV.
- Reconfiguration of the organisational structure.

**Contribution of outcome to achieving impact**

A capable TIA will be responsive to the needs of the environment and sectors it operates in; it will therefore be able to deliver on its priorities and improve the lives of all through innovation. This will be achieved through supporting service delivery through innovations and helping government departments to become efficient through technological innovations, thereby improving the lives of all South Africans.

# 11. KEY RISKS

The TIA employs a robust systematic process at both operational and strategic levels, which is integrated in and central to its strategic planning process. The methodology applied is derived from the prescripts of the Committee on Sponsoring Organisation Enterprise Risk Management Framework, ISO31000 on Enterprise Risk Management Framework, the Public Sector Risk Management Framework (National Treasury), the Institute of Risk Management South Africa risk principles and the TIA Risk Management Policy.

A risk landscape review will be performed once the priorities for the Decadal Plan, the Medium-Term Strategic Framework, the five-year Bio-economy work plan and the five-year Technology Station Programme work plan are approved. The results will be considered further by the TIA Board in alignment with the identified priorities and the risks will be updated to reflect the same. In the interim, a review was undertaken to determine the emerging risk profiles and are outlined in Table 7.

Table 7: Strategic risk mitigation plans

| Outcome | Key risk | Risk mitigation |
|---|---|---|
| **Intensified commercialised innovations** | Inadequate internal commercialisation capacity and capability | Leverage implementing partner model and expand the external experts' database to enhance and supplement internal capacity and capabilities. |
| | Low market uptake of and access to funded innovations | Build and develop investment portfolio and technologies in partnerships with industry (market-led investment strategy). |
| | Insufficient support tools for commercialisation | Develop and implement comprehensive support tools to facilitate the commercialisation enablement process. |
| | Lack of follow-on funding for entities may prevent them from advancing to the commercialisation stage | Through an SPV model, the TIA will strengthen relationships and investment by private sector and venture capital to commercialise funded projects.<br>Revise use of funding instruments to facilitate follow-on funding. |
| **Enabling and strengthening the innovation ecosystem** | Lack of acceptance and recognition of TIA's role by stakeholders in the innovation ecosystems | Foster robust and collaborative relationships with key stakeholders and partners.<br>Grow the brand strength of the TIA, aligning with the TIA's curatorship approach to promote collaboration and alignment in the NSI. |
| | Lack of capacity to drive thought leadership | Build business intelligence capabilities in the TIA. |
| | Insufficient transformation and inclusivity | Develop and implement a transformation strategy that promotes inclusivity and enhances the representation of under-represented groups and geographical areas in innovation initiatives. |
| **A more capable, scaled-up, agile and sustainable TIA** | Demand for technology development funding emanating from the investment pipeline may exceed available funding resources available (financial sustainability) | Enhanced revenue and funding model that drives the viability and sustainability of the TIA. |
| | Organisational design may not support the delivery of the strategy | Review the operating model and organisational design and implement the necessary measures.<br>Use the database of external experts. |
| | Inability to deliver services in an agile and effective manner | Leverage AI, digitalisation and automation to enhance the delivery of services, ensuring that the TIA operates with greater agility and effectiveness. |

# PART D:
# TECHNICAL INDICATOR DESCRIPTIONS

# PART D: TECHNICAL INDICATOR DESCRIPTIONS

### Outcome 1: Intensified commercialised innovations in support of inclusive economic growth, sustainable development and transformation

| Indicator title | 1.1 Number of innovations commercialised |
|---|---|
| Definition | Number of technological innovations that have been introduced into the market for social or commercial gain, directly or indirectly (products, processes or services). |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Innovation outputs will be developed successfully to a point where there is a market or a social demand. |
| Disaggregation of beneficiaries | Women: ≥20%<br>Youths ≥5%<br>Persons with disabilities: ≥10% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Commercialisation |

| Indicator title | 1.2 Number of commercialised innovations from publicly funded R&D |
|---|---|
| Definition | Innovations that have been introduced into the market arising from intellectual property from publicly funded research. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Innovation outputs will be developed successfully to a point where there is a market or a social demand. |
| Disaggregation of beneficiaries | Women ≥20%<br>Youths ≥5%<br>Persons with disabilities ≥10% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MMTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Commercialisation |

| Indicator title | 1.3 Number of commercialised innovations that improve competitiveness |
|---|---|
| Definition | Innovations that have been introduced into the market which improve competitiveness outcomes for industry and SMMEs, with these innovations fitting one or more of the following criteria:<br>• digital transformation to improve productivity<br>• green revolution (reduce carbon footprint)<br>• increased demand and entry into export markets<br>• cost-reduction improvements<br>• quality improvements. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Innovation outputs will be developed successfully to a point where there is a market or a social demand. |
| Disaggregation of beneficiaries | Women ≥20%<br>Youths ≥5%<br>Persons with disabilities ≥10% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Commercialisation |

| Indicator title | 1.4 Number of commercialised innovations by designated groups |
|---|---|
| Definition | Innovations that have been introduced into the market by previously disadvantaged individuals, including designated beneficiaries. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Innovation outputs will be developed successfully to a point where there is a market or a social demand. |
| Disaggregation of beneficiaries | Women ≥20%<br>Youths ≥5%<br>Persons with disabilities ≥10% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target.<br>Achievement of 90% of the target will be considered acceptable. |
| Indicator responsibility | Executive: Commercialisation |

## Outcome 2: Enabling and strengthening the innovation ecosystem

| Indicator title | 2.1 Number of ecosystem collaborations established |
|---|---|
| Definition | Multi-stakeholder collaborative innovation initiatives that have been established to innovate in key STI priority areas in line with the Decadal Plan. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Existence of internal TIA research and intelligence capability, funding, expertise and human resources. |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Innovation Enabling |

| Indicator title | 2.2 Number of initiatives to promote harmonisation of funding in the ecosystem |
|---|---|
| Definition | Initiatives implemented to promote synergistic and collaborative partnerships with Development Finance Institutions, government departments, SETAs and SOEs that lead to the pooling of resources, harmonisation of funding and streamlining of funding processes. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Buy-in of external partners and internal TIA capabilities |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2025–2030 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Innovation Enabling |

| Indicator title | 2.3 Number of measures implemented to strengthen the technology entrepreneurship ecosystem |
|---|---|
| Definition | Initiatives implemented to increase access for researchers and innovators to support mechanisms for technology transfer, skills, business development, partnerships and networking platforms. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Availability of funding to scale up and expand existing SET infrastructure and relevant partnerships for business development and networking support. |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Innovation Enabling |

| Indicator title | 2.4 Number of venture capital funds established |
|---|---|
| Definition | New or emerging venture capital funds established |
| Source of data | Contracts<br>En-commandite partnership agreements |
| Method of calculation/assessment | Simple count |
| Disaggregation of beneficiaries | Historically disadvantaged individuals (80%)<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Assumptions | Availability of a pipeline of established and suitably registered fund managers<br>Availability of funding from partners towards investment into new or emerging venture capital funds |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target |
| Indicator responsibility | Chief Investment Officer |

| Indicator title | 2.5 Total rand value of funding and investment leveraged |
|---|---|
| Definition | Funds leveraged through partnerships and investments |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Availability of funds and partners from the public and private sector to support and invest in TIA programmes/projects. |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target |
| Indicator responsibility | Executive: Innovation Enabling |

### Outcome 3: A more capable, scaled-up, agile and sustainable TIA supporting a capable state

| Indicator title | 3.1 Percentage dependency on MTEF Funding |
|---|---|
| Definition | Funding raised from partnerships, royalties, sales and exits for sustainability of the TIA. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Existence of an adequate pipeline of TIA investments with geared instruments, positive performance of portfolio that leads to exits and partnerships in the NSI. |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Chief Investment Officer |

| Indicator title | 3.2 Good governance in respect of positive audit outcomes |
|---|---|
| Definition | Securing positive audit outcomes (internal and external). A clean audit opinion on the audited annual financial statements, performance information, internal control environment and other related compliance matters to regulatory frameworks. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Non-cumulative |
| Assumptions | Compliance with regulatory frameworks, policies and National Treasury instruction notes. Assessment of materiality after consideration of materiality framework. Previous-year recurring matters (carried over) to not affect the achievement of the target. |
| Means of verification | Audit report from the appointed external auditors<br>Financial statements, trial balance and detailed reports |
| Spatial transformation (District Development Model) | NA |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Chief Financial Officer |

| Indicator title | 3.3 Increased operational efficiency |
|---|---|
| Definition | Digital transformation interventions and business process optimalisation measures introduced to improve turnaround time in respect of investment decisions and general responsiveness to customer queries. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Qualitative and quantitative survey methods agreed to between TIA and the appointed service provider based on industry best practice. |
| Assumptions | Availability of adequate budget, internal dedicated resources, culture of customer-centredness and responsiveness. |
| Spatial transformation (District Development Model) | NA |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Corporate Services |

| Indicator title | 3.4 Expanded business model capacitated |
|---|---|
| Definition | The percentage of filled positions in line with the Board-approved organisational structure that embeds the expanded Business Model of the TIA for both core and support functions. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Availability of adequate budget, re-skilled existing staff and additional skills from the NSI. |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>Persons with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Corporate Services |

| Indicator title | 3.5 Number of innovations that contribute to an efficient way of delivering a service by government |
|---|---|
| Definition | Innovations developed to promote efficiency in government operations and innovations that improve service delivery in critical socio-economic sectors. |
| Source of data | Programme/project database(s) |
| Method of calculation/assessment | Simple count |
| Assumptions | Existence of enabling legislation, buy-in and commitment by relevant government departments and their associated SOEs. |
| Disaggregation of beneficiaries | Historically disadvantaged individuals ≥80%<br>Women ≥45%<br>Youths ≥40%<br>People with disabilities ≥3% |
| Spatial transformation (District Development Model) | To be informed by and aligned with the priorities of government's 2024–2029 MTDP. |
| Reporting cycle | Annual |
| Desired performance | Performance equal to or greater than planned target. |
| Indicator responsibility | Executive: Commercialisation |

**Note concerning disaggregation of beneficiaries:**
For simplicity, the following terms are more fully described depending on the context and the nature of the indicator.

| Term | Description |
|---|---|
| Historically disadvantaged individuals | Entrepreneurs who are historically disadvantaged individuals or businesses owned by historically disadvantaged individuals: |
| Women | Women-owned businesses or women entrepreneurs |
| Youth | Youth-owned businesses or youth entrepreneurs |
| Persons with disabilities | Entrepreneurs who are persons with disabilities or businesses owned by persons with disabilities |

# NOTES

15208 TIA SP | NM | IWW


## GAUTENG HEAD OFFICE

+27 (0) 12 427 2700

Postal Address
P.O. Box 172
Menlyn
Pretoria
0181

Physical Address
TIA House
83 Lois Avenue
Menlyn
Pretoria

## KWAZULU-NATAL OFFICE

+27 (0) 31 220 3101

Postal Address
P.O. Box 30603
Mayville
Durban
4058

Physical Address
4th Floor
102 Stephen Dlamini Road
Musgrave
Durban

## WESTERN CAPE OFFICE

+27 (0) 21 442 3780

Postal Address
P.O. Box 13372
Mowbray
Cape Town
7705

Physical Address
Unit 10, Ground Floor
Old Warehouse
Black River Business Park
1 Fir Road, Observatory
Cape Town

**WWW.TIA.ORG.ZA**

@tiaorgza | Technology Innovation Agency | Technology Innovation Agency | Technology Innovation Agency | tiaorgza



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