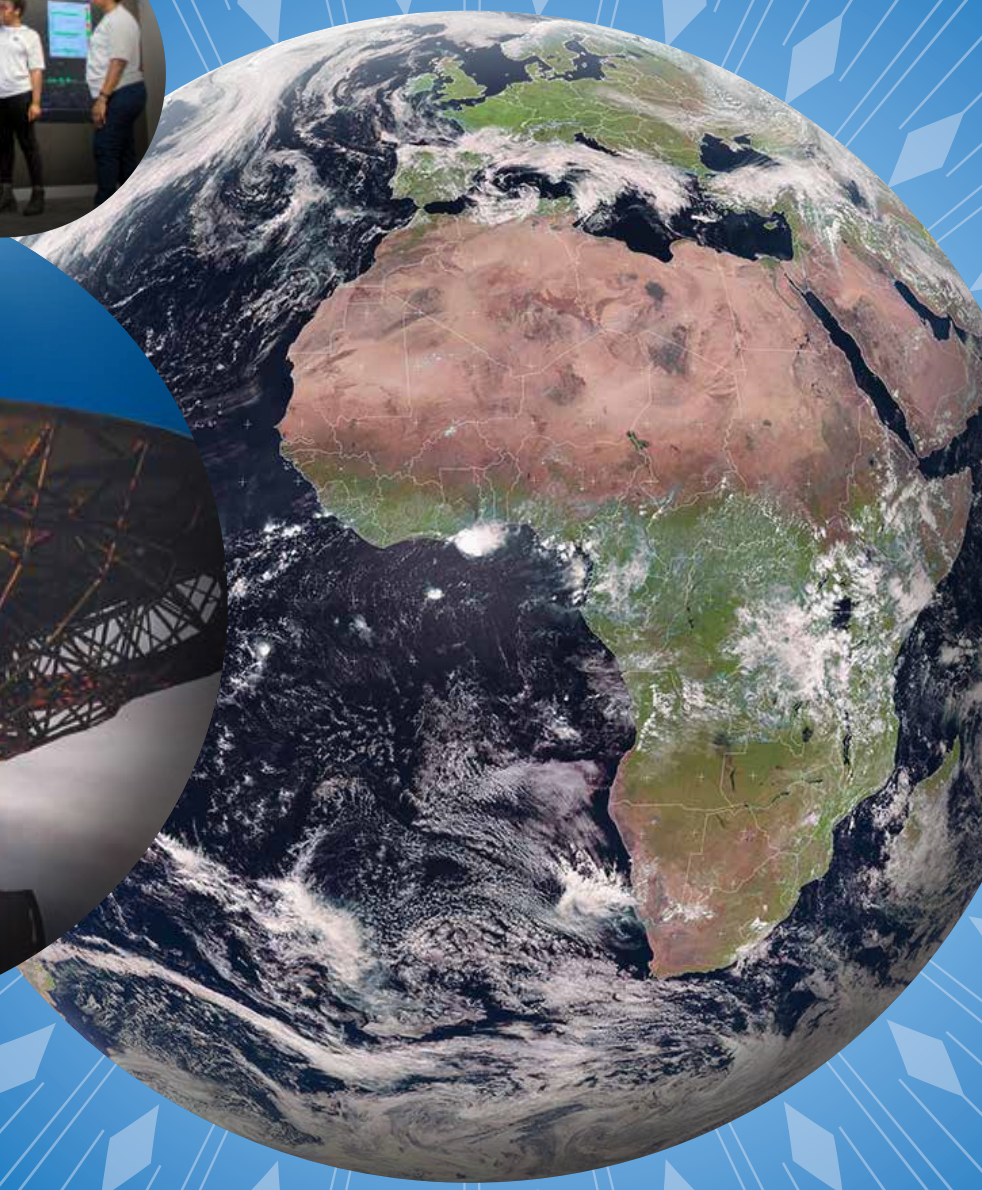

ANNUAL PERFORMANCE PLAN 2025/26

science, technology & innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

SANSA
SOUTH AFRICAN NATIONAL SPACE AGENCY

Annual Performance Plan for 2025/26

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

SANSA
SOUTH AFRICAN NATIONAL SPACE AGENCY

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Mr Patrick Ndlovu

Chairperson of the SANSA Board
(Accounting Authority)

ACCOUNTING AUTHORITY STATEMENT

It is my privilege to present the South African National Space Agency's (SANSA) Annual Performance Plan for 2025/26. As an entity under the Department of Science, Technology, and Innovation (DSTI), SANSA has a vital role in advancing South Africa's development agenda by contributing to the alleviation of poverty, unemployment, and inequality. Since its inception in 2011, SANSA has steadily established its systems and structures, laying the groundwork for the ambitious phase we now embark on.

Guided by the South African National Space Agency (SANSA) Act 36 of 2008 and the National Space Strategy (NSS), SANSA's mandate is clear: Promote the peaceful use of outer space; support the development and growth of the space industry; advance scientific research in space physics, communication, navigation and space science; and build South African space capabilities through investment in human capital and infrastructure and by leveraging international partnerships. The NSS recognises South Africa's current reliance on imported space technologies and services to meet the country's needs, but sets the ambition for the development of national space capabilities to support our own needs, grow and transform the South African Space Sector to be the net exporter of Space Technology and Services.

With the strategic leadership of the current Board, SANSA is transitioning from a decade-long growth phase into what we call the RAMP-UP Phase. This phase is designed to shift South Africa from an Emerging Space Nation – primarily a net consumer of imported space technologies – to an Intermediate Space Nation, where we develop our own space infrastructure and applications. The ultimate goal is to deliver cost-effective, reliable space-based services and information, through locally developed satellites and satellite systems, to both the government and the South African economy, whilst promoting and enabling a sustainable local space industry.

The success of this transformation rests on four strategic elements:

1. Building space industrial capabilities: This involves investing in manufacturing infrastructure, research and development, and human capital, supported by partnerships with academic institutions and development finance entities.
2. Expanding space-based infrastructure: SANSA aims to develop indigenous satellite systems and technologies, as well as expedite the Space Launch Capability development programme, to meet South Africa's space technology and services requirements. However, current investment levels are insufficient to accelerate the required industrial growth to meet this requirement. Attracting further investment; through our Space Investment Strategy; will be critical to the success of this strategic element.
3. Driving export markets: SANSA is positioning South African space products and services on the global stage. SANSA's persistent international marketing drive; through the exposure of South African Space Companies on International Platforms – such as the International Astronautics Congress and the NewSpace Africa; supports the South African Space sector's integration into the global space value chain, positioning South Africa amongst the leading players in the Global Space Market.
4. Leveraging international cooperation: South Africa's reputation as a credible partner enables us to forge strategic international partnerships. These partnerships will be key in accelerating the growth of our space-industrial capabilities.

While the path to becoming an intermediate space nation may take up to a decade, the speed of this transformation depends on our concerted focus on these four elements. I urge all our stakeholders to join us in setting the pace for this critical **RAMP-UP Phase**, which will enhance our space capabilities and ensure that South Africa takes its rightful place in the global space community.

Our new vision, "Accelerating space innovation for the advancement of all South African citizens and enabling global impact", reflects SANSA's commitment to harnessing space technology to improve decision-making and service delivery. By integrating space-based systems with ground-based operations, SANSA will deliver timely, accurate information to both government and the private sector, driving sustainable development and economic growth.

I am confident that the 2025/26 Annual Performance Plan sets a clear and ambitious path forward. Let us work together to realise the vision of an intermediate space-faring nation that contributes meaningfully to the prosperity of South Africa and the broader African continent.

Mr Patrick Ndlovu

Chairperson of the SANSA Board
(Accounting Authority)

Mr Humbulani Mudau

Chief Executive Officer

CHIEF EXECUTIVE OFFICER STATEMENT

As SANSA charts its course for the 2025–2030 period, we recognise the critical need to align our space sector ambitions with South Africa's broader socio-economic development goals. The first year of this strategy, as articulated in the 2025/26 APP, marks a bold shift in our journey. We are entering the *RAMP-UP Phase*, transitioning from an emerging space nation dependent on external technologies to an intermediate space nation with our own space infrastructure and capabilities. This phase will enable SANSA to deliver space-based services more effectively to government, industry, and society, whilst reducing our reliance on imported systems.

Our strategy has been developed using a results-based management approach, ensuring that SANSA's efforts directly contribute to South Africa's development priorities. Our broader impact is to contribute to inclusive economic growth, transformation, industrialisation, job creation, and the development of a capable state through advancements in space science, engineering, and technology.

SANSA's mandate enables it to make both direct and indirect contributions to the three strategic priorities of the Medium-Term Development Plan (MTDP) 2024–2029:

1. Drive inclusive growth and job creation: By building national space capabilities in space science and satellite-based technologies, and supporting the growth of the local space sector, we aim to promote economic inclusivity and stimulate job opportunities across various industries.
2. Reducing poverty and tackling the high cost of living: SANSA's satellite-based services are being developed to enhance decision-making in critical areas such as disaster risk

reduction, food security, and service delivery, improving efficiencies and reducing costs for the government and citizens.

3. Building a capable, ethical, and developmental state: Our space products and services will empower government departments, particularly municipalities, to make informed decisions and fulfil their mandates with greater efficiency and effectiveness.

In line with the STI Decadal Plan, which outlines five key priorities and three grand societal challenges, SANSA will play a vital role in achieving the ambitious goals set out in the plan. Our contributions through the six key outcomes of the 2025–2030 Strategic Plan will be central to this effort:

1. **Enhanced national capability in space science, technology, and satellite infrastructure,** ensuring South Africa meets local demands whilst building global competitiveness.
2. **Increased space-relevant knowledge and decision-support tools,** enabling accurate, timely, and sustainable support for national development.
3. **A greater share of the global space market economy,** positioning South Africa as a leader in space innovation and competitiveness.
4. **A vibrant, competitive, and transformed South African space industry,** promoting inclusivity, black talent development, and SME growth.
5. **Increased human capacity in space science, technology, and engineering,** ensuring a skilled and future-ready workforce to drive space-sector growth.
6. **A capable, sustainable, and high-performing SANSA,** focusing on financial sustainability, operational excellence, and national service delivery.

The 2025–2030 Strategic Plan, starting with the 2025/26 APP, marks the beginning of an exciting new phase for SANSA, commencing with the following priorities for the 2025/26 financial year:

1) National space capability:

- National satellite build programme: Complete 60% of the Houwteq AIT Facility upgrades, and advance the development of the constellation of high-resolution satellites.
- Indigenous launch capability programme: Establish foundational elements for a national satellite launch capability, aligning with global space technology trends.
- Achieve 90% completion of infrastructure at the Matjiesfontein (MTJ) Deep Space Ground Station, positioning it as a key player in deep space exploration.
- Partnerships and collaborations: Implement the international partnerships and collaborations strategy to attract investments in the national space capability, aligned with the priorities of the STI Decadal Plan.

2) Decision-support tools:

- Develop Earth intelligence applications to address critical challenges, including food security, disaster risk reduction (early warning systems), and climate change.
- Expand SANSA's offerings into emerging sectors such as health innovation, energy, mining, and financial services, leveraging Earth observation technologies to unlock new growth opportunities.

3) Economic diplomacy and commercialisation:

- Increase commercial activities by hosting additional international facilities at Space Operations (HBK) and supporting various mission launches, including at least three exploration missions, reinforcing SANSA's role in global space initiatives.

- Significantly grow the revenue generated from the selling of space-based products and services by all SANSA programmes.

4) Space science:

- Finalise a financial sustainability plan for the Space Weather Capability (SWx), ensuring its long-term operational viability.
- Advance the integration of space science elements into the Space Infrastructure Hub (SIH), promoting innovation and collaboration across sectors.

5) Space exploration

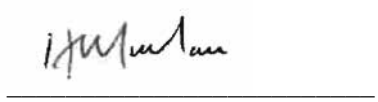
- Launch a recruitment programme for 'Afronauts' and commence their training to participate in future human spaceflight missions.
- Actively contribute to BRICS+ space station and lunar research programmes, with a focus on space situational awareness and traffic management.

6) SANSA growth and sustainability strategy

- Implement transformation and industry development strategies, including accelerator programmes for start-ups and targeted support for MSMEs to stimulate the local space economy.
- Transition SANSA to a Schedule 3A entity with revenue-generating capabilities, enabling reinvestment in capacity and capability development to support its strategic objectives.

As we work towards positioning space innovation as a driver of national growth and a key contributor to the global space economy, we are confident that SANSA will ramp up its delivery of tangible benefits to the people of South Africa and beyond.

I would like to acknowledge the support and guidance SANSA receives from the Board members, the Minister and Deputy Minister of Science, Technology, and Innovation (DSTI), the DSTI management team, our industry partners, international, national, and African stakeholders, as well as the portfolio committee, which holds us accountable for our commitments as the country's space agency.



Mr Humbulani Mudau

Chief Executive Officer

OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan for the South African National Space Agency:

1. Was developed by the management team of the South African National Space Agency under the guidance of the Board and the Executive Authority, the Minister of Science, Technology and Innovation.
2. Takes into account all the relevant policies, legislation, and other mandates for which the South African National Space Agency is responsible; and
3. Accurately reflects the outcomes and outputs which the South African National Space Agency will endeavour to achieve over the 2025/26 period.

Prof Abel Ramoelo

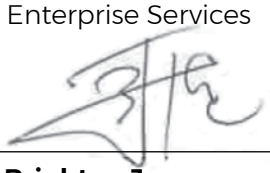
ED: Earth Observation

Ms Sibongile Mazibuko

ED: Enterprise Services

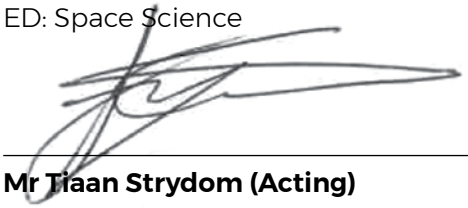
Mr Raoul Hodges

ED: Space Science



Mr Brighton Jena

Chief Financial Officer

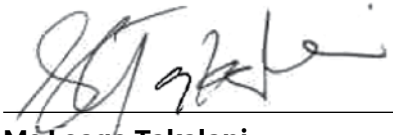


Mr Tiaan Strydom (Acting)

ED: Space Operations

Mr Stephen Chauke

Strategy, Monitoring and Evaluation Manager



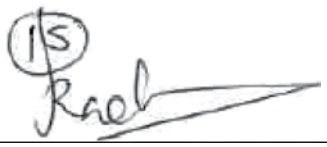
Ms Leago Takalani

ED: Space Engineering

Mr Humbulani Mudau

Chief Executive Office

Date: 16/01/2025



Mr Patrick Ndlovu

Chairperson of SANSA Board
(Accounting Authority)

Date: 16/01/2025

APPROVED BY:

Dr BE Nzimande, MP

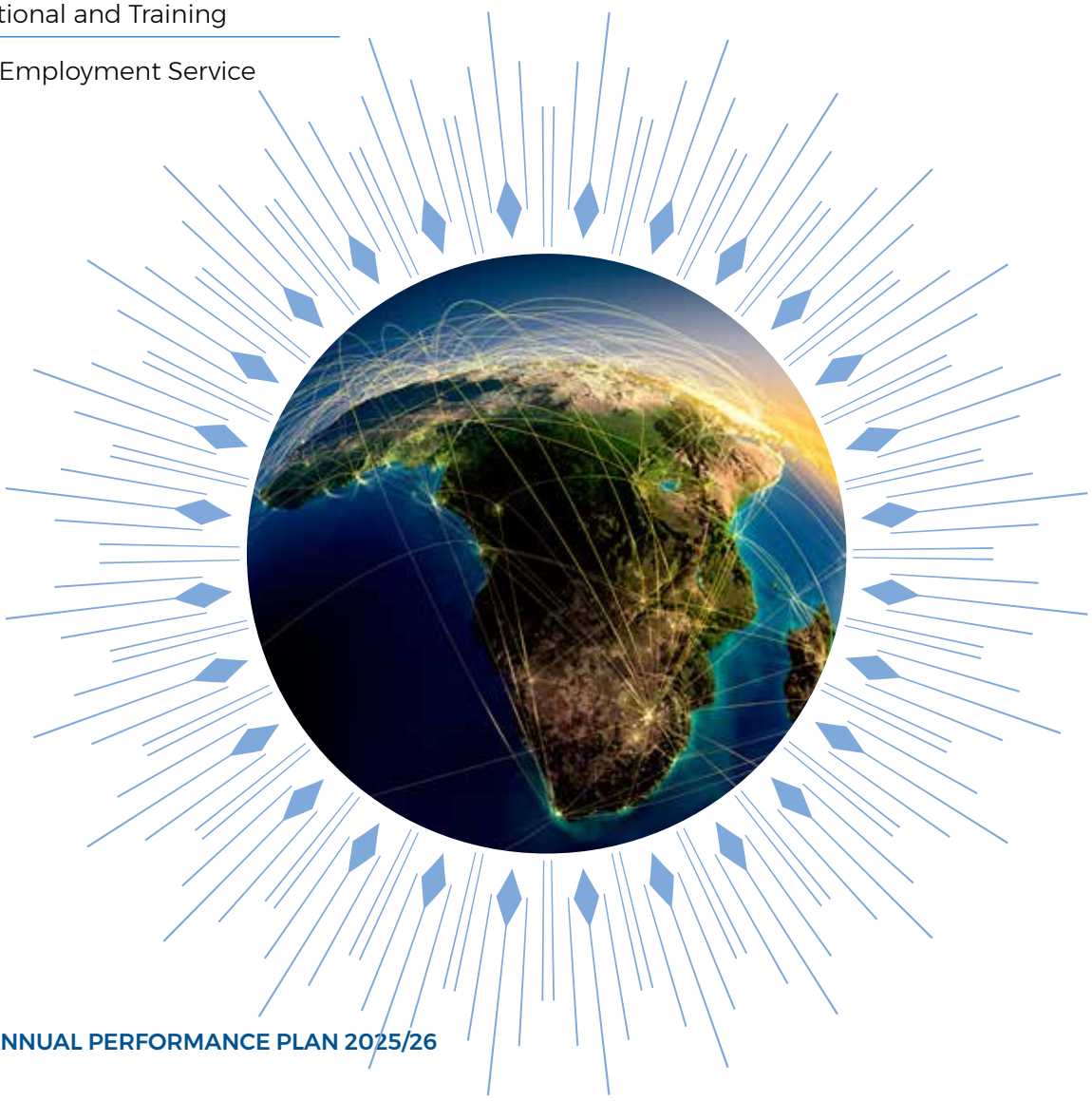
Minister of Science, Technology and Innovation
(Executive Authority)

Date: 06 March 2025

ABBREVIATIONS AND ACRONYMS

4IR	Fourth Industrial Revolution
AIT	Assembly Integration and Testing
APP	Annual Performance Plan
B-BBEE	Broad-Based Black Economic Empowerment
BRICS	Brazil, Russia, India, China, and South Africa
CDF	Concurrent Design Facility
CPI	Consumer Price Index
DDM	District Development Model
DESA	Digital Earth South Africa
DHET	Department of Higher Education and Training
DSTI	Department of Science, Technology and Innovation
dtic	Department of Trade, Industry and Competition
EIA	Environmental Impact Assessment
EO	Earth Observation
GDP	Gross Domestic Product
GIP	Government's Infrastructure Programme
GNSS	Global Navigation Satellite Services
GPS	Global Positioning System
HRM&D	Human Resources Management and Development
ICT	Information and Communications Technology
IMF	International Monetary Fund
IP	Intellectual Property
ILRS	International Lunar Research Station
MTDP	Medium-Term Development Plan
MTEF	Medium-Term Expenditure Framework
MTJ	Matjiesfontein
NASA	National Aeronautics and Space Administration
NDP	National Development Plan
NGO	Non-governmental Organisation
NRF	National Research Foundation
NSI	National System of Innovation
NT	National Treasury
PG	Parliamentary Grant
PFMA	Public Finance Management Act 1 of 1999, as amended by Act 29 of 1999
PWDs	Persons With Disabilities
RD&I	Research, Development and Innovation
RSSC	Remote Sensing Satellite Constellation
SAASTA	South African Agency for Science and Technology Advancement
SADC	Southern African Development Community
SAEOS	South African Earth Observation Systems
SCM	Supply Chain Management
SDG	Sustainable Development Goal
SETAs	Sector Education and Training Authorities

SGCs	Societal Grand Challenges
SHEQ	Safety, Health, Environment and Quality
SIH	Space Infrastructure Hub
SME	Small to Medium Enterprise
SMME	Small, Medium and Micro Enterprise
STEMI	Science, Technology, Engineering, Mathematics, and Innovation
STI	Science, Technology, and Innovation
SWx	Space Weather Capability
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TIA	Technology Innovation Agency
TVET	Technical and Vocational Educational and Training
YES	Youth Employment Service



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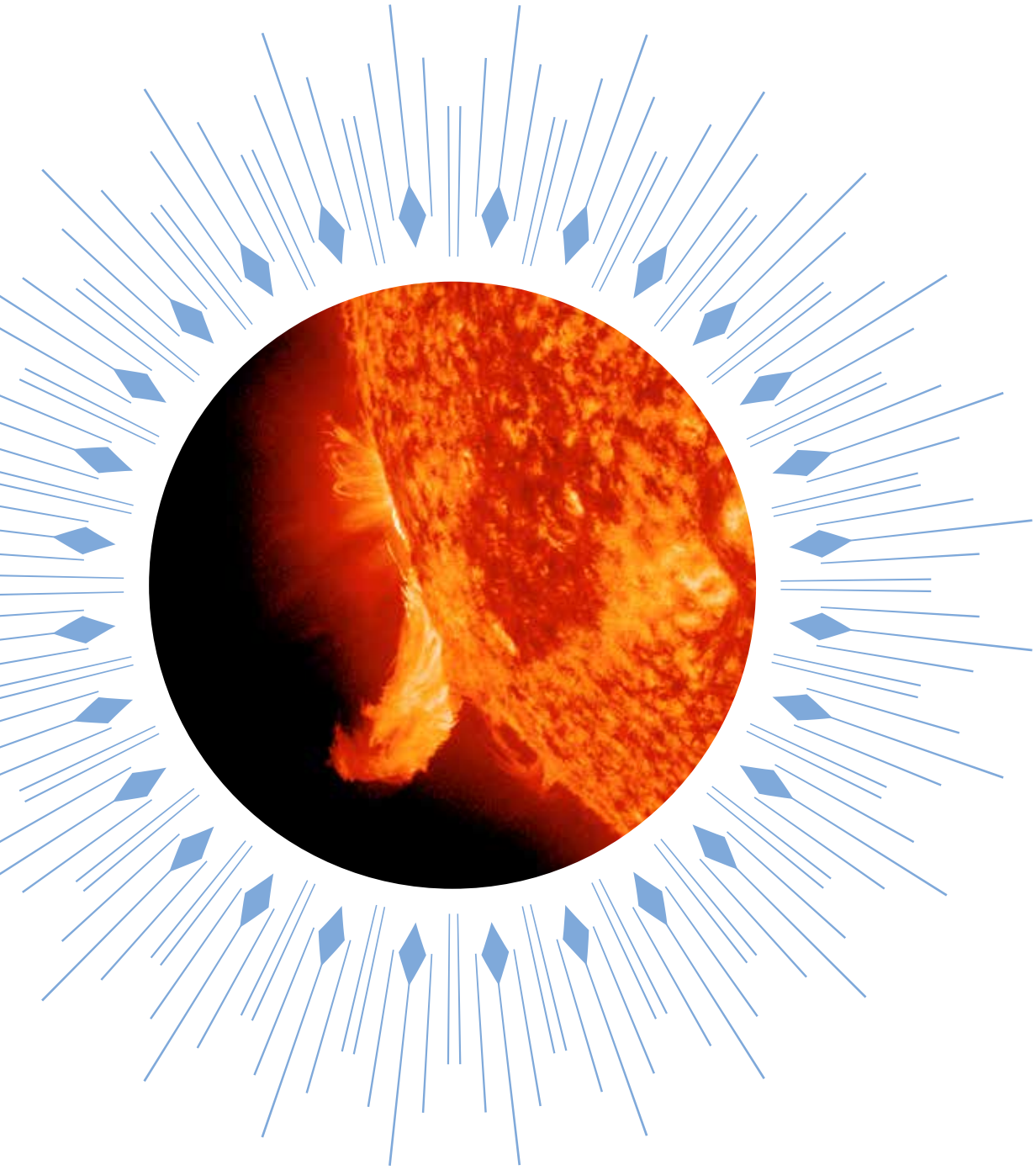


PART A

OUR MANDATE

1. UPDATES TO THE RELEVANT LEGISLATIVE AND POLICY MANDATES

The work of SANSA is anchored by the Constitution of the Republic of South Africa, 1996, which serves as the supreme law. SANSA ultimately derives its mandate from the Constitution and the South African National Space Agency (SANSA) Act 36 of 2008 as its regulatory instruments.

The Agency's collaborations related to space research, resource mobilisation and capacity building, amongst other key priorities, are guided by the constitutional requirement for all spheres of government to work together in addressing poverty, unemployment, and inequality, and promoting the development of South Africa.

In this context, key relevant sections from the Constitution include the following:

1. Section 22 – *"Every citizen has the right to choose their trade, occupation, or profession freely. The practise of a trade, occupation or profession may be regulated by law"*; and
2. Section 41 – Principles of cooperative government and intergovernmental relations: which requires all spheres of government to, amongst other requirements (h) cooperate with one another in mutual trust and good faith by: *"i. fostering friendly relations; ii. assisting and supporting one another; iii. informing one another of, and consulting one another on, matters of common interest; and iv. coordinating their actions and legislation with one another"*.

SANSA is a Schedule 3A Public Entity that formally came into existence on 3 December 2010 in terms of the Public Finance Management Act 1 of 1999, as amended by Act 29 of 1999 (PFMA).

The legislative mandate is premised on two primary Acts, namely:

1) The Space Affairs Act 84 of 1993

The Space Affairs Act is an instrument of the Department of Trade, Industry and Competition **(the dtic)** and caters for the regulatory and policy context for the South African space programme. It is intended for:

a. Meeting all the international commitments and responsibilities of the Republic in respect of the peaceful utilisation of outer space, to be recognised as a responsible and trustworthy user of outer space; and

b. Controlling and restricting the development, transfer, acquisition, and disposal of dual-purpose technologies, in terms of international conventions, treaties and agreements entered or ratified by the Government of the Republic of South Africa.

2) The South African National Space Agency (SANSA) Act 36 of 2008:

The SANSA Act is a regulatory instrument of the Department of Science, Technology and Innovation (DSTI) that grants the Minister of Science, Technology and Innovation, as the Executive Authority of SANSA, the powers to establish SANSA as the implementing agency for the National Space Programme (NSP). In terms of the Act, the establishment mandate of SANSA is to:

"...provide for the promotion and use of space and cooperation in space-related activities, foster research in space science, advance scientific engineering through human capital and support the creation of an environment conducive to industrial development in space technologies within the framework of national government policy..."

The primary objectives of SANSA are to:

a. Promote the peaceful use of outer space.

b. Support the creation of an environment conducive to industrial development in space technology.

c. Foster research in space science, communications, navigation, and space physics.

d. Advance scientific, engineering, and technological competencies and capabilities through human capital development outreach programmes and infrastructure development.

e. Foster international cooperation in space-related activities.

In pursuit of the achievement of these objectives, SANSA is expected to carry out the following functions:

a. Implement any space programme in line with the policy determined in terms of the Space Affairs Act.

b. Advise the Minister on the development of national space science and technology strategies and programmes.

c. Implement any national space science and technology strategy.

d. Acquire, assimilate, and disseminate space satellite imagery for any organ of State.

In addition to the above establishment legislation, SANSA's work is governed by a broad legislative framework, including the following key legislation:

Table 1: Key legislation, including amendments, governing SANSA's work

Name of Act, as Amended	Key Implications
Science and Technology Laws Amendment Act 9 of 2020	Amends the establishment legislation of a number of the DSTI public entities, including the SANSA Act 36 of 2008. It intends to harmonise and streamline the processes related to the governance arrangements of the accounting authorities of the public entities.
National Key Point Act 102 of 1980	Provides for the declaration and protection of sites of national strategic importance against sabotage, as determined by the Minister of Police since 2004, and the Minister of Defence before that.
Critical Infrastructure Protection Act 8 of 2019	Will repeal the National Key Point Act, providing for matters related to the identification and declaration of infrastructure as critical infrastructure. Once the Act comes into effect, SANSA would need to apply for classification of its facilities under this Act and no longer under the National Key Point Act.
International space law, policy and conventions when participating in the global space programme:	· Outer Space Treaty of 1967: Treaty on principles governing the activities of states in the exploration and use of outer space, including the moon and other celestial bodies. · Rescue Agreement of 1968: Agreement on the rescue of astronauts, the return of astronauts and the return of objects launched into outer space. · Liability Convention of 1972: Convention on international liability for damage caused by space objects. · Registration Convention of 1975: Convention on registration of objects launched into outer space.

Name of Act, as Amended	Key Implications
Broad governance and administration legislation, amongst others:	· Public Finance Management Act 1 of 1999 (PFMA) · Promotion of Access to Information Act 2 of 2000 · Intergovernmental Relations Framework Act 13 of 2005, including regulations on the District Development Model · Skills Development Act 97 of 1998 · Employment Equity Act 55 of 1998, pending new regulations on sectoral numerical targets · Public Procurement Act 28 of 2024 · Broad-Based Black Economic Empowerment Act 53 of 2003 · Preferential Procurement Policy Framework Act 5 of 2000 · Occupational Health and Safety Amendment Act 181 of 1993

National Space Policy

The National Space Policy (NSP) provides an overarching guideline to all national space actors on the key principles for implementation of a South African Space Programme. The National Space Policy is an instrument of the dtic and is aligned to the Space Affairs Act.

The NSP is the anchor tenet and reference point by which all other policy and strategy instruments are crafted. The primary objectives of the National Space Policy are to:

1. Improve coordination throughout the South African space arena to maximise the benefits of current and planned space activities; avoid or minimise duplication of resources and efforts; and organise existing initiatives, programmes, and institutions into a coherent network for all providers and users of space systems.
2. Promote capacity building initiatives, both as a means towards effective participation in the space arena, as well as to develop capacity in space science and technology, and science and technology in general.
3. Facilitate the provision of appropriate and adequate space capabilities to support South Africa's domestic and foreign policy objectives.
4. Foster a robust science and technology base in research institutions and the higher education sector.
5. Promote the creation and implementation of a supportive regulatory environment to facilitate industrial participation in the space arena, in accordance with domestic law and South Africa's foreign policy objectives and international obligations.
6. Promote the development of an appropriate and competitive domestic commercial space sector to provide the industrial base to meet the nation's needs for space technology.
7. Promote improved cooperation with other nations in the mutually beneficial peaceful uses of outer space.
8. Promote greater awareness and appreciation, at all levels of South African society, of the relevance and benefits of space science and technology.

Global and Regional Policy Alignment

SANSA's work aligns closely with several of the global and regional policies and development priorities through its current and future contributions to space science, satellite-based technologies, and data-driven solutions.

Table 2: Global and regional policy alignment

Policy	SANSA Contributions (Current and Future/ *RAMP-UP*)
United Nations Sustainable Development Goals (SDGs)	· **SDG 1: No Poverty** – Provision of satellite data and applications that improve resource management, disaster risk reduction, and service delivery, which directly contribute to poverty alleviation. · **SDG 2: Zero Hunger –** Through Earth observation technologies, SANSA will support precision agriculture, enabling more effective crop monitoring, resource allocation, and food security. · **SDG 4: Quality Education –** SANSA invests in human capital development by providing training, education, and research opportunities in space science and technology thus assisting to build skills in science, technology, engineering, mathematics, and innovation (STEMI) fields. · **SDG 9: Industry, Innovation, and Infrastructure –** SANSA is ramping up the development of space technology infrastructure to support local industrial competitiveness and innovation. · Through its 24/7 space weather capability, SANSA protects critical infrastructure such as telecommunications, navigation, and power systems from solar and geomagnetic disturbances. · SANSA's mission support services are crucial for satellite launches, communications, and space operations, significantly contributing to the global space economy. · **SDG 11: Sustainable Cities and Communities –** Expanding the scope of capabilities in geospatial services will support urban planning, infrastructure development, and disaster risk reduction, promoting the development of sustainable and resilient cities. · **SDG 13: Climate Action –** SANSA's Earth observation programmes provide crucial data to monitor environmental changes, track climate patterns, and contribute to climate change mitigation efforts. · **SDG 17: Partnerships for the Goals –** Leveraging international collaborations provides SANSA with the opportunity to expand its contribution to the global space economy and to enhance the country's contribution to the SDGs.
African Union (AU) Agenda 2063	· **Aspiration 1: A prosperous Africa based on inclusive growth and sustainable development –** SANSA promotes inclusive growth by enabling a competitive space industry, creating jobs, and advancing satellite technologies. Its Earth observation services support sustainable resource management, agriculture, and infrastructure development. · **Aspiration 2: An integrated continent, politically united, and based on the ideals of Pan-Africanism –** SANSA enhances regional cooperation in space science through partnerships and leads in building space infrastructure for SADC, contributing to Africa's integration. · **Aspiration 3: An Africa of good governance, democracy, respect for human rights, justice, and the rule of law –** SANSA improves data-driven governance with satellite tools, supporting efficiency and transparency whilst protecting critical infrastructure through space weather monitoring. · **Aspiration 4: A peaceful and secure Africa –** SANSA supports peace and security with space-based applications for disaster monitoring, border security, and resource management. · **Aspiration 6: An Africa whose development is people-driven, relying on the potential offered by its youth –** SANSA develops human capital through education and training, building the next generation of African space scientists, engineers and technicians.
Southern African Development Community (SADC), Vision 2050	SADC's Vision 2050 focuses on long-term regional development, driven by industrialisation, infrastructure development, and human capital growth. Through its activities and the building of national space capabilities, SANSA is able to support regional integration and sustainable development by advancing technological innovation across Southern Africa.

National Policy Alignment

At the national level, SANSA responds to South Africa's long-term and medium-term development goals:

1) National Development Plan (NDP) Vision 2030:

The NDP serves as South Africa's blueprint for eliminating poverty, reducing inequality, and reducing unemployment by 2030. Space science and technology has the potential to significantly address this triple challenge of poverty, inequality and unemployment and support the goals of NDP Vision 2030. In the performance cycle 2025–2030, SANSA intends to ramp up its contribution to the NDP by focusing on building its capabilities and providing space-related technologies and services that respond to the triple challenge:

Table 3: National development plan alignment and response to the triple challenge

Policy	SANSA Contributions (Current and Future/ *RAMP-UP*)
Job creation and economic growth	By strengthening the local space industry and developing space-related infrastructure, SANSA will stimulate job creation in areas such as satellite manufacturing, space science, and data analytics. These activities contribute to inclusive economic growth and industrialisation, creating opportunities in both upstream and downstream sectors of the space industry.
Reducing inequality through human capital development	SANSA will continue its investment in skills development and education in STEMI fields. This is done in partnership with TVET colleges and universities, as well as in partnership with relevant SETAs. The focus is on promoting equal access to opportunities in space science and technology for historically disadvantaged communities, helping reduce inequality by building an inclusive workforce and industry.
Enhancing service delivery and poverty reduction	SANSA's Space Infrastructure Hub (SIH) that is being implemented offers opportunities to expand satellite-based services and decision-support tools for disaster risk reduction, food security, urban planning, and infrastructure development. The tools help improve service delivery, particularly in rural and underdeveloped areas, addressing the challenges of poverty by supporting more efficient government planning and decision-making
Innovation and global competitiveness	By driving innovation and increasing South Africa's share in the global space economy through economic diplomacy, mission support and investment initiatives, SANSA is gearing the country to become a competitive, intermediate space-faring nation. This contributes to long-term economic growth, which supports broader goals of reducing unemployment and alleviating poverty

2) Medium-Term Development Plan 2024–2029:

The MTDP 2024-2029 serves as the bridge between the long-term aspirations of the NDP and the actionable, immediate interventions required to address the country's socio-economic challenges. It positions science, technology, and innovation (STI) as an essential component (outcome) of inclusive growth and job creation, with contributions to poverty reduction, and state development, ensuring that efforts align with South Africa's broader development agenda.

SANSA's contribution to the MTDP 2024–2029 is shown in the table below, reflecting SANSA's pivotal role in supporting inclusive growth, poverty reduction, and the creation of a capable developmental state in South Africa.

Table 4: Alignment with the medium-term development plan 2024–2029 (draft)

MTDP Outcome	SANSA Contributions
Strategic Priority 1: Drive inclusive economic growth and job creation	
Increased employment opportunities	· SANSA will support job creation through its 24/7 Space Weather Capability and the Space Infrastructure Hub (SIH), driving innovation across multiple sectors, including mining, agriculture, and manufacturing. · The deployment of tools such as the Earth Observation Data Cube (EODC) and Digital Earth South Africa (DESA) will enhance decision-making in labour-intensive sectors. · SANSA will contribute to government sector employment by focusing 40% of space-related expenditure on SMEs.
Re-industrialisation and localisation	· SANSA's investments in upgraded infrastructure such as the Assembly Integration and Testing (AIT) Facility, the Concurrent Design Facility (CDF), and ground segments at Hartebeesthoek and Matjiesfontein Deep Space Facility support the re-industrialisation of the South African economy. · SANSA will contribute to the implementation of the SpaceTech Industry Framework in collaboration with the dtic, aimed at developing black industrialists and growing small businesses in the space sector. · Market access initiatives will further stimulate economic activity in space-related sectors, leveraging the NeoFrontiers Fund in collaboration with business incubators and development finance agencies (DFIs).
Increased infrastructure investment	· SANSA will play a key role in boosting infrastructure investment by providing satellite communications (SatComs) and navigation services that support key sectors, including, energy, communications, and water. · The SIH and other infrastructure projects will focus on underserviced areas, contributing to inclusive growth. · SANSA is developing decision-support tools to support implementing agencies with monitoring infrastructure projects to ensure they are optimised for public benefit.
Improved competitiveness and economic diplomacy	· SANSA will leverage space economic diplomacy to strengthen South Africa's role in African Continental Free Trade Area (AfCFTA) initiatives and trade partnerships. · Expansion of services from Earth observation and space operations will drive growth in the local space sector, whilst Matjiesfontein will serve as a critical hub for commercial and international partnerships, as well as tourism development. · SANSA's collaboration with BRICS nations and the Global South will further enhance investment opportunities.
Science, technology, and innovation for growth	· SANSA is a key contributor to the STI Decadal Plan, through the SANSA Technology Research, Development and Innovation Strategy, driving technological advancements through RD&I and expanding the country's space science capabilities. This includes leveraging space-related intellectual property (IP) and establishing centres of competence (COC) in space technologies, positioning South Africa as a leader in global space innovation.
Strategic Priority 2: Reducing poverty and tackling the high cost of living	
Skills for the economy:	· SANSA will enhance the development of critical skills for the economy through our Youth Engagement Programme – to advocate for Space STEM with the South African Youth, our Bursary Programme – for Science and Engineering Skills, and partnerships with public entities for adoption of space technologies for service delivery thus creating demand for Space Skills at public entities. · SANSA will collaborate with the Department of Basic Education (DBE) to include space science in the Basic Education Curriculum · SANSA will collaborate with Department of Higher Education and Training (DHET) to leverage the SETA programmes for funding of space-related apprenticeships and training opportunities for technicians and artisans. · These efforts will produce the talent needed to drive the future of South Africa's space industry.

MTDP Outcome	SANSA Contributions
Social cohesion and nation-building	· SANSA will focus on empowering women, youth, and persons with disabilities, ensuring broader participation in the space economy and promoting social cohesion by removing barriers to entry.
Strategic Priority 3: Building a capable, ethical and developmental state	
Improved service delivery at local government	· SANSA, through the SANSA-DDM engagement Initiative will drive the adoption of Space Technologies at Local government. · Decision-support tools provided by SANSA to local government, through the SANSA-DDM engagement Initiative, will enhance the ability of municipalities to meet service delivery standards and respond to unforeseen events effectively.
A capable and professional public service	· SANSA will support the digital transformation of public services by providing Space-based Infrastructure, Space Technology and Space-based Services and Geospatial tools, through the SIH Programme; that improve the efficiency of government operations.
Effective border management and regional development:	· SANSA shall contribute to effective Border Management, through the SIH Programme – by deploying Remote Sensing satellites to monitor South African Borders. · SANSA, through our Strategic Partnership Programme, shall collaborate with international and African partners to strengthen the continent's space capabilities, promoting peace, security, and regional development in line with the AU Agenda 2063.

4) STI Decadal Plan, 2032

The STI Decadal Plan, approved by Cabinet in December 2022, serves as the implementation plan for the 2019 White Paper. The STI Decadal Plan sets the long-term policy direction and support for R&D/STI priorities to derive maximum impact in addressing South Africa's developmental challenges for a more prosperous and inclusive society. The STI priorities are incorporated in the MTDP 2024–2029, comprising five STI priorities and three societal grand challenges, shown in the table below.

Table 5: STI Decadal plan priorities and societal grand challenges

xSTI Priority	Focus Areas
1. Modernising key sectors of the economy	· Agriculture · Manufacturing · Mining
2. New sources of growth	· Circular economy · Digital economy · Cybersecurity and blockchain
3. Large research and innovation programmes	· Health innovation · Energy innovation
4. Research and innovation for a capable state	· Improved decision-making · Improved service delivery
5. Innovation in support of socio-economic progress	· Expanding the resource base for local innovation and local economic development · Expanding the rollout of Government's Infrastructure Programme (GIP) nationally
Societal Grand Challenges (SGCs)	
SGC1. Climate change and environment sustainability	
SGC2. Education, skills and the future of work	
SGC3. Future of society	

SANSA's efforts and investment focused on building and maintaining a competitive national space infrastructure that fosters research and development, delivery of products and services, industry development and strengthening international partnerships, will be positioned to support the STI Decadal Plan priorities.

SANSA has conducted a detailed analysis of its contribution to the STI Decadal Plan, considering:

1. Cross policy pollination – the interchange and interaction between complementary policies and ideas, and the need for collaboration across the STI value chains.
2. The Africa Agenda, and partnerships/ relationships with various space programmes and agencies on the African continent.
3. Targeted partnerships that will fast track SANSA's growth, development, and influence.
4. The reality of geopolitics, and the anticipation of intensified conflicts and global disruptions.

SANSA's interventions for the planning period will include:

1. The development and implementation of an integrated, skills and competencies development and outreach programme.
2. Implementation of SANSA's STI Decadal Plan aligned stakeholder engagement (strategy compact) framework, incorporating the Agency's primary stakeholders – government institutions, foreign governments, research and academic institutions, regional and international space forums, and other (public, media, private sector, industry companies, etc.)
3. The development and deployment of decision-support tools and data analytics capabilities to support the innovation-enabled capable state, including but not limited to smart city decision-support tools, human settlement and spatial planning, risk and energy atlases, renewable energy and climate change adaption and resilience, C4ISIR (command, control, communications, computers, intelligence, surveillance, reconnaissance), and a range of earth observation services and innovation. A keen focus will be on supporting municipalities with community-based basic service delivery products and services,
4. Exploitation of new sources of growth, for competitiveness and job creation – implementation of key infrastructure projects.
5. Through SANSA's four Social Intervention Programmes (SANSA Bursary Programme, SANSA-DHET Apprenticeship Programme, SANSA Youth Engagement Programme, the SANSA Internship and work Placement Programme), SANSA supports social progress, economic inclusivity and sustainable livelihoods.
6. Elevated support for responsible environmental custodianship and responsiveness to climate change mitigation.
7. Exploring initiatives that interface with other DSTI entities in line with the philosophy of the Decadal Plan. This will require extensive engagements amongst the DSTI entities – SANSA will take the lead on space-related partnerships and collaborations. Examples include:

a) The CubeSat development project, M2MSat, by CPUT is co-funded by the Technology Innovation Agency (TIA). This is an example of a key technology development project that should ideally be transferred to SANSA, and other sensor technology development initiatives

b) The drive for the establishment of the indigenous launch capability will be led by the DSTI, with SANSA as the local

implementer, in collaboration with the Aerospace Systems Research Institute team from the University of KwaZulu-Natal.

c) Space Operations's collaborative initiatives with the CSIR, the South African National Research Network (SANREN), the Agricultural Research Institute (ARC), TIA and the National Research Foundation (NRF) will continue in line with the philosophy of the Decadal Plan.

The Agency's international cooperation and partnership activities are aligned with the STI Decadal Plan priorities for expanded and strategic internationalisation, including participation in:

- Transformative research and innovation partnerships;
- International mobility programmes for training and skills development; and
- Partnerships which exploit synergy between international trade and innovation, including those which attract foreign investment.

SANSA's detailed response to the Decadal Plan in terms of the initiatives and interventions to be considered for implementation over the medium-term is outlined in ***Annexure E*** of this Annual Performance Plan.

5) District Development Model (DDM)

The DDM has progressed since its pronouncement by the President of South Africa during his State of the Nation Address in 2019. The DDM profiles of the 44 district municipalities and eight metropolitan municipalities have been completed. To improve the coherence and impact of government service delivery and development, DDM regulations were published under the existing Intergovernmental Relations Framework Act 13 of 2005 by the Minister of Cooperative Governance and Traditional Affairs (COGTA) in May 2024. It regulates the roles and responsibilities of the three spheres of government, encouraging private sector and civil society contributions.

The DDM presents SANSA with the opportunity to elevate its profile, to promote and make available space-related infrastructure, products, and decision-support tools at a local level. It supports the GNU priority of creating an enabling environment for inclusive economic growth within municipalities.

2. UPDATES TO INSTITUTIONAL POLICIES AND STRATEGIES

The National Space Strategy (NSS) seeks *"for South Africa to be amongst the leading nations in the innovative utilisation of space science and technology to enhance economic growth and sustainable development and thus improve the quality of life for all"*. The vision is grounded in three primary goals, namely:

1. To capture a global market share for small to medium-sized space systems in support of the establishment of a knowledge economy through fostering and promoting innovation and industrial competitiveness.
2. To empower better decision-making through the integration of space-based systems with ground-based systems for providing the correct information products at the right time.
3. To use space science and technology to develop applications for the provision of geospatial, telecommunication, timing, and positioning products and services.

South African Earth Observation Systems Strategy

Given the vital role of Earth observation applications in supporting decision-making and evidence-based policy formulation across government spheres, the objective of the South African Earth Observation Systems Strategy (SAEOSS) is to establish a coordinated framework for the collection, integration, and dissemination of Earth observation data and insights. This objective will be achieved through:

1. Identifying and correcting shortcomings in the sampling, data processing, systems modelling, and information dissemination processes.
2. Ensuring that the information needs of users are met, in the form that they require, when they need it, and at an affordable cost.
3. Exploiting the opportunities for synergy and cost saving between previously separate systems by, amongst other things, promoting the development of open, interoperable information and communications technologies for Earth observation.
4. Developing or promoting standards for Earth observation information interchange.
5. Ensuring that crucial datasets are securely archived.
6. Creating value enhanced datasets by linking together previously standalone, incompatible, and mutually inaccessible observations, and by linking observations with models.
7. Accessing relevant data from observation systems in neighbouring countries and from global observation systems, and in return supplying data needed for the solution or regional or global problems.

2.1. Linking Space to Government Policies and Developmental Priorities

The highest priority of any government is to ensure (i) sustained economic growth and (ii) improvement in the quality of life of its citizens. It is, therefore, imperative that investments in space science and technology are geared towards addressing these fundamental priorities.

In fact, the notion of national space programmes is premised on the potential benefits that can accrue to the country from directed investments in developing the local space sector which in turn address poverty, inequality, and unemployment.

The process for drafting the NSS included extensive consultation with national government departments to ascertain what the key priorities for a National Space Programme should be. This methodology for framing the National Space Programme has significant

implications for achieving the broader policy mandate of government. The key priorities of government that need to be addressed by a National Space Programme was collated and clustered into three key priority areas, namely:

1. **Environment and resource management:** A space programme that helps South Africa to understand and protect the environment and develop its resources in a sustainable manner.
2. **Health, Safety and Security:** A space programme that strengthens developmental efforts through ensuring the health, safety and security of South Africa's communities.
3. **Innovation and economic growth:** A space programme that stimulates innovation, whilst leading to increased productivity and economic growth through commercialisation.

Each of these clusters further comprise of a list of associated user needs, summarised in Table 6 below. The success of the National Space Programme will be assessed by how well these user needs are responded to, and whether the appropriate data and information has been provided on time and is of an acceptable quality standard. In addition, the use of the predefined data and information reside in various and multiple government departments, where these specific datasets could have multiple uses.

Table 6: Clustering government priorities and National Space Programme user needs

Environmental Resource Management	Health, Safety and Security	Innovation and Economic Growth
· Environmental and geospatial monitoring. · Ocean, coastal and marine management. · Land management. · Rural development and urban planning. · Topographic mapping. · Hydrological monitoring. · Climate change adaptation and mitigation. · Meteorological monitoring.	· Disaster monitoring and relief. · Hazards forecasting and early warning. · Cross-border risk. · Disease surveillance and health risk. · Asset monitoring. · Regulatory enforcement. · Defence, peacekeeping, and treaty monitoring.	· Tourism and recreation. · Communications. · Space science and exploration. · Space technology transfer and spinoffs. · Development of the space industry.

Within the Innovation and Growth priority area, an emerging user need is for space applications such as drone and 4IR technologies for precision agriculture, disaster risk reduction, early warning systems and provision of Earth intelligence, amongst others.

Programmes to implement the priority areas:

1. **Thematic programmes:** Earth observation, navigation, communication, and space science and exploration.
2. **Functional programmes:** Enabling technologies, mission development, space mission operation and space mission applications.
3. **Support programmes:** Human capital development, infrastructure and international partnerships.

2.2. Space Infrastructure Hub

The primary objective of the Space Infrastructure Hub (SIH) project, which combines physical infrastructure and big data-driven technologies, will focus on mission development for future South African satellites, the development of satellite communications capabilities, and the development of local satellite navigation augmentation systems, which will increase the accuracy of global navigation satellite systems in South Africa and the Southern Africa region. The SIH project will support the further development of the Space Weather Centre, providing uninterrupted 24/7 space weather services to the International Civil Aviation Organisation. It will contribute to developing SANSA's new deep-space ground station at Matjiesfontein in the Western Cape province.

2.3. SANSA Growth and Sustainability Strategy

South Africa, currently a net importer of space technologies and services, aspires to develop its own space capabilities to meet national needs and boost the local space industry. This aligns with SANSA's mandate to create an environment conducive to industrial development in space technology, foster research in space science, advance scientific engineering by developing human capital and infrastructure, and promote strategic international cooperation.

Recognising this, the SANSA board, in consultation with the DSTI, has resolved to transition SANSA from a growth phase to a *RAMP-UP Phase*. This new phase aims to shift South Africa from an emerging space nation to an intermediate space-faring nation. It is a challenging but essential strategic move for SANSA to fulfil its mandate and commitment to supporting the government's developmental priorities, as discussed in Section 2.

A Growth and Sustainability Strategy, which is currently being finalised, underpins this five-year strategic plan. The strategy envisions that, within five years, SANSA will have launched an operational satellite constellation, enabled a vibrant, transformed, and inclusive space sector, and developed applications and decision-support tools for a capable state.

The strategy also recognises that to position South Africa globally as an intermediate space nation, several enablers are required: An inclusive culture as the backbone for high performance and accountability; an organisational structure that supports innovation, sustainable growth and results-driven initiatives; increased brand equity; and improved customer relations.

The following focus is therefore important for SANSA's 2025–2030 Strategic Plan:

1. Establishing SANSA as a high performing entity as the foundation for brand equity.
2. Leveraging meaningful partnerships to capitalise on technical expertise, financial and in-kind support.
3. Innovation, research and development as a catalyst for income generation, which is recycled for seed funding of black talent spinoffs.

Investments will be made in the following flagship programmes:

1. Satellite communication and applications.
2. Navigation and positioning (SBAS).
3. Space situational awareness and space traffic management.
4. Establishing a Space Port and indigenous launch capability.
5. Operationalising the AIT facility for SADC and Africa.
6. Optimising the ground segments (HBK and MTJ), for increased geographical footprint.
7. Alignment with sector master plans.

SANSA will explore opportunities for establishing subsidiary companies, budget coordination across government clusters, targeting existing funding instruments through the dtic, DSBD, and other DFIs, and strengthening international collaboration and co-development (BRICS, Africa). Focus will be given to crosscutting service areas, shown in the figure below.

Figure 1: Growth and sustainability focus on crosscutting service areas

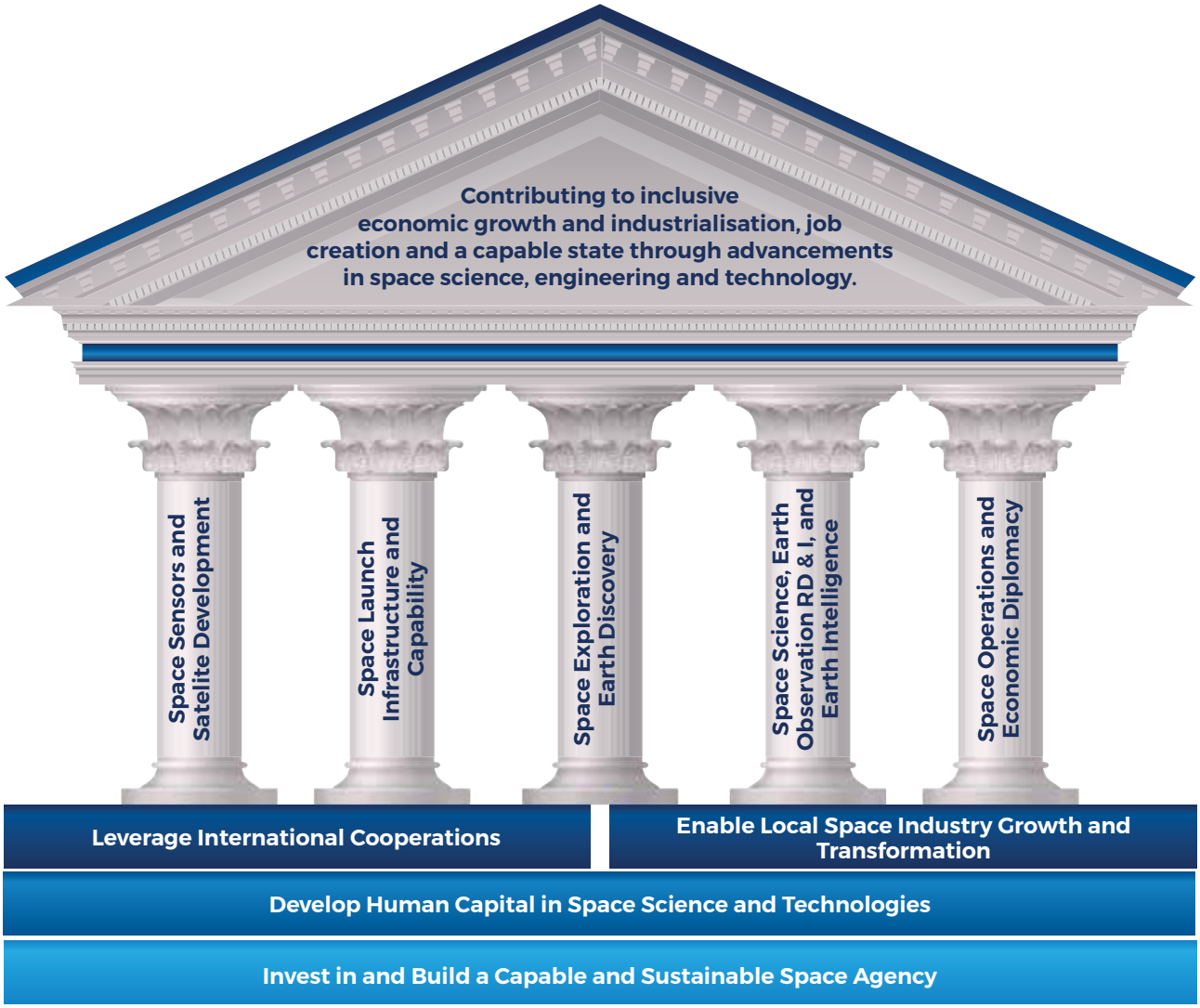
SANSA will also actively pursue new sources of growth and expansion into potential markets such as banking, insurance, mining, and health innovation. By integrating space technologies into these sectors, the agency aims to unlock new value and contribute to South Africa's economic development, in particular, the priorities of the STI Decadal Plan.

The ultimate goal is to deliver cost-effective, reliable space-based services and information, both for government and the South African economy in support of socio-economic development, whilst promoting and enabling a sustainable local space industry. The success of this transformation rests on four strategic elements:

1. **Building space industrial capabilities:** This involves investing in manufacturing infrastructure, research and development, and human capital, supported by partnerships with academic institutions and development finance entities.
2. **Expanding space-based infrastructure:** SANSA aims to develop indigenous space-based systems and services to meet South Africa's requirements. However, current investment levels are insufficient to accelerate growth. Attracting further investment will be critical to the success of this strategic element.
3. **Driving export markets:** SANSA is positioning South African space products and services on the global stage, with a particular focus on Africa. This will support integration into the global space value chain, whilst ensuring South Africa becomes a leading player in the continent's space industry.
4. **Leveraging international cooperation:** South Africa's reputation as a credible partner enables it to forge strategic international partnerships. These partnerships will be key in accelerating the growth of the country's space industrial capabilities.

It is envisioned that the path to becoming an intermediate space nation may take up to a decade. The speed of this transformation depends on a concerted focus on these four elements through focus and prioritisation. For the 2025–2030 focus will be given to the following strategic pillars and enablers of the *RAMP-UP Phase*.

Figure 2: Strategic focus areas and pillars of the *RAMP-UP* phase for 2025–2030



The envisaged business model of the Growth and Sustainability Strategy, informing the 2025–2030 Strategic Plan, and this 2025/26 APP, is illustrated in the business model canvas below. It will chart the organisation's strategic trajectory for the five-year planning period. The new business model is crucial for ensuring alignment with broader government policies and enhancing the entity's capability to fully meet its mandate by providing space products, services, and applications that effectively address societal challenges. Additionally, it promotes industry development, knowledge sharing, and economic diplomacy through strategic partnerships and innovation.

Figure 3: SANSA Business Model informing the 2025–2030 Strategic Plan

SANSA BUSINESS MODEL CANVAS FOR 2025-2030

KEY PARTNERS

- **Government Agencies:** DSTI, NT and end-user departments - national, provincial and local
- **Industry:** Aerospace companies, technology firms and satellite manufacturers
- **International Space Agencies:** Collaborations with global space organisations
- **Academic Institutions**: Universities and research institutions for R&D and talent development
- **Industry Institutions:** Space industry and economic development agencies.
- **Funding Bodies:** Investors, grant organisations and DFIs

KEY ACTIVITIES

- Undertake RD&I in thematic/ priority areas
- Design, procure and build space sensors and satellite constellations
- Develop and manage space infrastructure, including launch capabilities
- Leverage space-derived data for insights into social, environmental and economic trends
- Engage in and support space missions and exploration initiatives
- Manage satellite operations and space missions
- Build strategic partnerships to enhance national capappbilities and investment
- Support local industry growth and transformation
- Implement ESD programmes
- Undertake HCD and outreach programmes

KEY RESOURCES

- Space-related technological infrastructure
- Skilled professionals in space science, engineering, technology and business development
- Sustainable funding sources
- IP/technological innovations
- Partnership Networks

VALUE PROPOSITIONS

- **Investment Attraction:** Positioning the South African space programme as an attractive investment opportunity for global and local research and funding institutions.
- **Advanced Space Capabilities:** Driving growth in South Africa's space sector by investing in satellite technologies and applications, RD&I and human capital.
- **Catalysing Space Infrastructure:** Developing and expanding space infrastructure and launch capabilities to meet local needs and enhance the capacity of local industries to deliver competitive space assets.
- **Market Expansion:** Position South African space products and services as leaders in Africa and integrate into the global space value chain.
- **Leveraging International Cooperation:** Forming impactful partnerships that bolster national space industrial capabilities, generate revenue and drive technological advancements and economic growth.

Ramp Up Phase of NSP

CUSTOMER RELATIONSHIPS

- **Strategic Partnerships:** Building long-term relationships with government, industry and international partners.
- **Collaboration and Support:** Providing technical support, consultations and collaborative opportunities.
- **Public Engagement:** Communicating achievements and advancements to the public through media and outreach programmes.
- **Feedback Mechanisms:** Collecting and incorporating feedback from stakeholders to improve service delivery.

CHANNELS

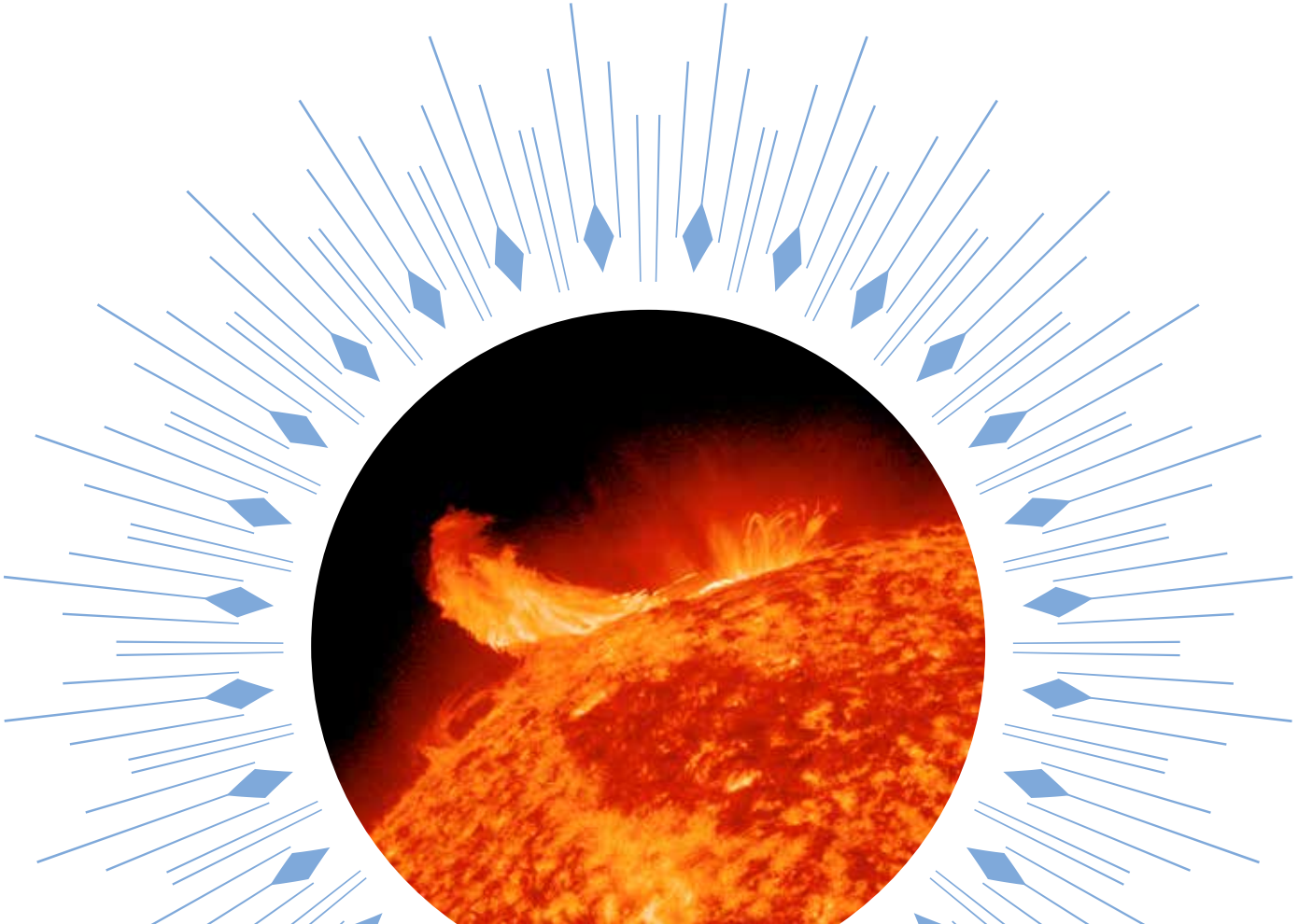
- **Direct Engagement:** Government and industry collaborations, R&D partnerships.
- **Digigal Platforms:** SANSA's website, SAEOSS (portal,, catalogue and DESA) and social media platforms.
- **Public Relations:** Media, conferences and public events to showcase developments.
- **Educational Outreach:** Programmes and workshops to engage with stakeholders.

CUSTOMER SEGMENTS

- **Government and Public Sector:** Three spheres of government seeking space data and technology for development.
- **Industry/NGOs:** Companies needing space-derived data and satellite services.
- **Research Institutions:** Academic and research organisations requiring access to space data and technology.
- **International Partners:** Foreign space agencies and organisations interested in collaboration.
- **General Public:** Beneficiaries of improved quality of life through space-driven advancements.

Developmental Agenda: MTDP 2024 - 2029 STI Decadal Plan, 2032

SANSA BUSINESS MODEL CANVAS FOR 2025-2030	
COST STRUCTURE	**REVENUE STREAMS**
· **RD&I:** Costs associated with space science, technology innovation and satellite development. · **Operational Costs:** Launch costs, satellite maintenance and ground operation. · Infrastructure Investment: Building and maintaining space-related infrastructure. · **Human Resources:** Salaries, talent development and attraction of skilled professionals. · **Partnership and Collaboration Costs:** Expenses related to international cooperation and joint ventures.	· Parliamentary grant for the space programmes / Capital funding for infrastructure development. · Innovative offerings - satellite data sales, space operations, technology licensing and SS&T consulting services. · Single-licence multi-user satellite data acquisition for government and other end-users. · Internationalisation and FDI through hosting of international space facilities in SANSA ground stations. · Shareholding and equity to start-ups, SMME training and incubation. · Grants and subsidies from international organisations and research grants.



3. UPDATES TO RELEVANT COURT RULINGS

At the time of developing SANSA's 2025/26 APP, there were no relevant court rulings that would impact on the Agency's capability to deliver on its mandate as provided by the SANSA Act 36 of 2008 to the extent possible, given the resources at its disposal.

PART B

OUR STRATEGIC FOCUS

In giving effect to the legislative and policy mandate outlined in Part A, the 2025-2030 Strategic Plan articulates SANSA's strategic focus – its vision, mission, and institutional values – as follows:

Vision

Accelerating space innovation for the advancement of all South African citizens and enabling global impact.

Mission

To advance South Africa's national interests by:

- leading and pioneering in space science, technology, and innovation;
- transforming and supporting the growth of the space industry; and
- collaborating globally to drive inclusive socio-economic development and a capable state.

The mission is enabled by building a capable and sustainable space agency.

Table 7: SANSA's core values

We Care for our people

- We coach and empower each other
- We act with fairness
- We show empathy
- We celebrate each other's successes

We are Customer-centric

- We understand and prioritise our customers' preferences and pain points.
- We share customer insights and feedback across teams
- We make it easy for our customers to do business with us
- We engage both internal and external stakeholders as valued customers

We Innovate and Drive Impact

- We combine our curiosity with specialised knowledge
- We adapt quickly, experiment and iterate to stay ahead
- We are fearless and committed to doing what's right to drive innovation.

We Collaborate

- We seek to understand and acknowledge respectfully
- We show up on time
- We keep our commitments
- We seek opportunities to partner with each other across our value chain

We extend Trust

- We act with integrity
- We tell the truth without fear
- We own our mistakes and successes
- We protect confidential information

Employee Value Proposition:

"At SANSA, we create opportunities to learn and grow, providing a world-class service to our stakeholders and clients through individuals that are energetic, enthusiastic, and passionate about what we do.

We promote a healthy work life balance, provide equitable remuneration and competitive benefits to build a motivated workforce that contributes to the long-term good of society."

1. UPDATED SITUATIONAL ANALYSIS

1.1. External Environment Analysis

1.1.1. Economic Outlook

Global growth was projected to stabilise in 2024, with a modest recovery expected in the following years, supported by cautious easing of monetary policies as inflation trends downward. However, the outlook remains subdued, particularly for vulnerable countries. According to the World Bank's June 2024 Global Economic Prospects, key observations include:[1]

1. Growth Stabilisation and Recovery: After a turbulent period, global growth was expected to stabilise in 2024, with gradual improvement thereafter. Easing monetary policies are anticipated to support this growth as inflation declines.
2. Vulnerabilities and Risks: Economic prospects remain weak for vulnerable countries, with persistent challenges despite overall stabilisation.

Downside risks to the global outlook include: escalating geopolitical tensions, fragmentation of global trade, prolonged high interest rates, and natural disasters linked to climate change. Early 2024 saw a partial rebound in merchandise trade among major economies, with notable import increases in Brazil, Russia, and the US, whilst China and India showed strong export growth. Japan and South Africa continued to experience trade declines.[2]

In Q1 2024, growth in service trade plateaued, with mixed trends across major economies – imports rose, but exports declined for China, South Korea, and Russia. While global economic conditions are expected to stabilise, challenges remain, especially for vulnerable economies. Effective policy responses are crucial to navigating risks and building resilience, particularly in emerging markets. SANSA plays a key role in addressing national and regional challenges through space-based solutions that support natural resource management, climate monitoring, disaster response, and national security.

Africa has shown resilience despite external shocks such as high food and energy prices, geopolitical tensions, and climate impacts, which led to a deceleration in average real GDP growth to 3.1% in 2023. However, with improving global conditions, GDP growth is projected to rebound to 3.7% in 2024 and 4.3% in 2025, positioning Africa as the second-fastest growing region globally, after developing Asia.[3]

South Africa is expected to see average GDP growth of 1.5% from 2024 to 2026, driven by easing electricity constraints, but high crime rates significantly undermine economic potential, costing up to 10% of GDP annually.[4] Persistent inequality, high unemployment (32.1% in Q4 2023), and poverty (62.7% living below the poverty line) remain serious issues.[5] Overall, South Africa continues to grapple with significant socio-economic challenges despite earlier gains, with rising poverty, high unemployment, and deteriorating infrastructure constraining further progress. SANSA therefore has a crucial role to play in contributing towards fulfilling government's responsibility to its citizens through the effective

1 World Bank. Global Economic Prospects, June 2024 (English). Global Economic Prospects Washington, D.C.: World Bank Group.

2 United Nations. Trade and Development. Global Trade Update, July 2024. Special Insights: Trade and Development Policy

3 African Development Bank. African Economic Outlook 2024. 30 May 2024. Driving Africa's Transformation: The Reform of the Global Financial Architecture

4 South Africa: Economic Update, Safety First: The Economic Cost of Crime in South Africa. The World Bank. Edition 14 - 22 November 2023

5 South Africa - Overview. The World Bank. 05 April 2024. https://www.worldbank.org/en/country/southafrica/overview#1

provision of space products and services aimed at addressing poverty, unemployment and inequality whilst promoting South Africa's development.

1.1.2. Space Industry

Global

The World Economic Forum's April 2024 report, developed in collaboration with McKinsey & Company, highlights the growing potential of the global space economy, which is projected to reach US$1.8 trillion by 2035, up from US$630 billion in 2023, with an average annual growth rate of 9%. This expansion is driven by space-based technologies like communications, positioning, navigation, timing, and Earth observation services, which are expected to become as integral to daily life as semiconductors are today.

While traditional space activities such as satellite launches and exploration will continue to grow, space-enabled technologies will see faster expansion, benefitting industries such as food and beverage, retail, transportation, and climate disaster mitigation. Over 60% of the space economy's growth by 2035 will come from sectors focused on enhancing connectivity, including supply chain, digital communications, and consumer goods.

> **"In-orbit servicing is central to a thriving space economy, fostering a safe space environment and sustainable infrastructure. It achieves this by facilitating essential activities such as active debris removal, refuelling, life extension and inspection. Furthermore, it serves as a catalyst in shaping the future of space, unlocking the potential of a circular space economy, and expanding possibilities".**
>
> *Nobu Okada, Chief Executive Officer, Astroscale*
> *World Economic Forum Space Report: 2024*

The report also emphasises that the benefits of space go beyond financial returns, contributing to global challenges, including but not limited to disaster warning, climate monitoring, and humanitarian response. As demand grows, space infrastructure and the number of satellites will increase, with 90% of the commercial market dedicated to connectivity and 9% to Earth observation by 2035. In-orbit servicing will revolutionise satellite maintenance, reducing the need for replacements and saving time and money.[6]

SANSA's *RAMP-UP Phase* towards becoming an intermediate space nation aligns well with the projected growth of the global space economy. However, success will depend on securing adequate investment, driving innovation, creating a high performance organisation to build brand equity, and leveraging international partnerships to accelerate South Africa's transition to an intermediate space nation.

Africa

The Southern African Development Community (SADC), comprised of 16 member states, is focused on fostering regional integration to achieve peace, stability, and prosperity. Recognising the strategic importance of space technology for regional development, SADC has advanced several key space initiatives, including satellite communications, Earth observation, and space research. These efforts aim to tackle challenges like natural resource management, disaster response, and climate monitoring, whilst driving innovation and infrastructure development across the region.

Key initiatives of the SADC Space Programme include:

6 World Economic Forum. Space: The $1.8 Trillion Opportunity for Global Economic Growth. Insight Report April 2024

1. Space Policy and Strategy: Promoting space technology for sustainable development, addressing climate change, disaster management, and resource management.
2. Space Agency: The launch of the African Space Agency (AfSA) in January 2023 supports joint missions, satellite development, and data sharing amongst African countries.
3. Satellite Development and Launches: SADC countries such as Zimbabwe and South Africa are advancing satellite capabilities, with South Africa being a regional leader in space technology, having launched the most satellites in Africa.

Africa's interest in space is growing rapidly, with its space industry projected to be worth over US$22 billion by 2026,[7] offering opportunities for emerging technologies, including, AI, machine learning, robotics, and small satellite constellations.[8] SANSA plays a crucial role in regional space collaboration, aligning with the STI Decadal Plan, 2032, and supporting South Africa's leadership in the African space sector whilst contributing to regional and global space goals.

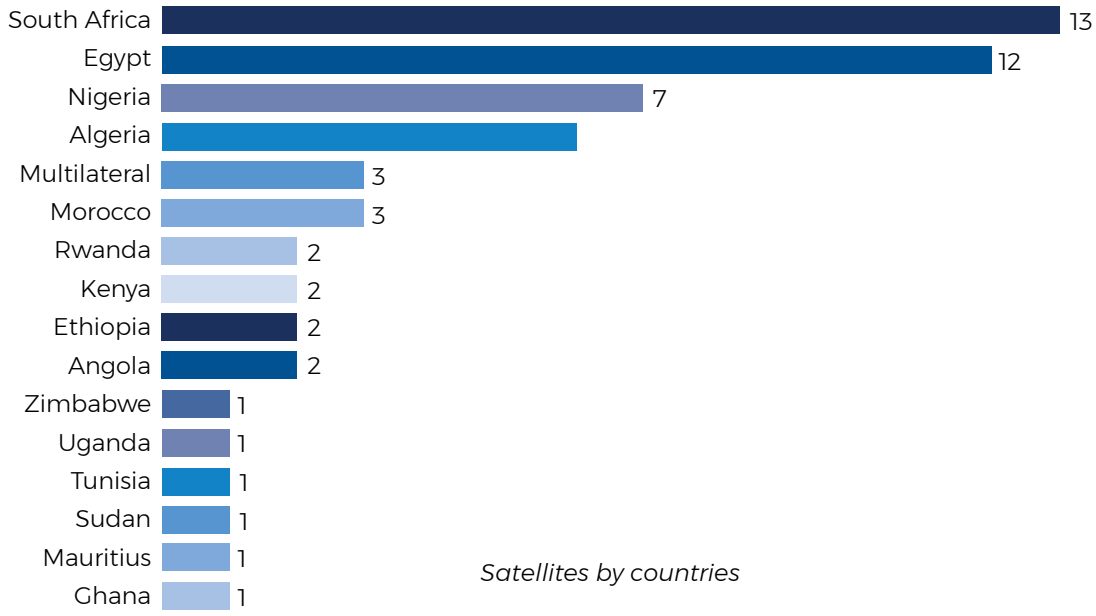
Between 1998 and June 2023 African nations launched a total of 58 satellites into orbit. South Africa and Egypt have 13 and 12 respectively. Nigeria has launched seven, and Algeria six. Three were multilateral projects organised between several African countries. The remaining 17 were launched by 11 different countries across the continent, as listed below. An additional 105 satellites are expected to be launched into orbit by 2026.[9]

7 https://africanews.space/african-space-industry-annual-report-2023-edition/ (Accessed 31 August 2023)

8 https://mg.co.za/africa/2022-10-03-africas-space-industry-attracting-eu-and-chinese-investors/ (Accessed 31 August 2023)

9 https://africanews.space/african-satellites/ (Accessed 31 August 2023)

Figure 4: Number of satellites launched by African countries



Source: Space in Africa

Between 2000 and 2023, African nations signed 166 bilateral space agreements involving more than 100 institutions from 32 countries worldwide. More than half of those agreements were signed over the past three years. With more than forty-five (45) ongoing research and development projects focused on various Sustainable Development Goals (SDGs) spread across ten (10) African countries, the continent's space investment landscape is looking healthy[10].

The continent has a shortage of adequately trained and skilled local human resources in the space ecosystem. Currently gaps in expertise and capability benefit foreign space powers[11]. Tomorrow's African space pioneers need to be educated today, with a strong focus on encouraging and enabling those with the requisite aptitude to study STEMI subjects.

In keeping with South Africa's regional integration commitment, the SANSA strategy is premised on the realisation of the powerful impact space has on addressing the country's manifold socio-economic and environmental challenges. The advancement of the SADC Space Programme and the African Space Programme exemplifies the region's and continent's commitment to leveraging space technology for socio-economic and environmental development.

SANSA thus continues to play a pivotal role in these initiatives, positioning the agency for significant growth. The agency's future potential hinges on effectively integrating and aligning its existing initiatives with these broader regional and continental programmes. Leveraging on collaborations with international partners is crucial for facilitating access to advanced technology, enable knowledge exchange, and support participation in joint space missions. The Matjiesfontein Deep Space Ground Station serves as an illustration of SANSA space operations aimed at supporting global missions. Furthermore, so too does the Africa Agenda, and partnerships / relationships with various space programmes and agencies on the African continent.

South Africa

Most African countries buy their satellites from foreign nations, but South Africa has a thriving space industry, supplying satellite components and services globally. An estimated R200 million is estimated to have been generated by exports in the sector in 2022.

South African space products have been integrated into many international satellites, including China's Queqiao lunar satellite. Three satellites launched in January 2022 are part of the Maritime Domain Awareness Satellite Constellation (MDASat) and were developed and manufactured by the Cape Peninsula University of Technology (CPUT).

The full MDASat constellation of nine cube satellites that will detect, identify, and monitor seagoing vessels off the South African coast in near real-time, is an initiative developed to help the country unlock and protect the potential of its blue economy. The project is the first constellation designed and developed in Africa[12].

As already discussed, satellite constellations present a clear opportunity in the space sector. Remote sensing and geospatial technologies can offer solutions for disaster management, weather and environmental monitoring, advanced agriculture, monitoring and protection of infrastructure and environmental assets, as well as many other security-based applications.

10 https://africanews.space/african-space-industry-annual-report-2023-edition/ (Accessed 31 August 2023)

11 https://mg.co.za/africa/2022-10-03-africas-space-industry-attracting-eu-and-chinese-investors/ (Accessed 31 August 2023)

12 https://www.defenceweb.co.za/aerospace/aerospace-aerospace/maritime-domain-awareness-satellite-constellation-satellites-due-for-launch/ (Accessed 1 September 2023)

Space data-as-a-service

The Deloitte 2023 Space Survey identified space data-as-a-service as "a major area that has the potential for disruptive growth"[13]. As the cost of access to space is reduced and technology continues to advance, the volume and variety of data gathered from space will likely continue to grow. Space-based monitoring platforms will use a variety of instruments to collect valuable data for clients in areas like military monitoring and communications, open ocean surveillance, environmental monitoring, and emergency and disaster response.

Edge computing is an architecture that seeks to process data closer to where it is generated to speed up processing and enable real time control of new technologies like autonomous vehicles, virtual and augmented reality, or the Internet of Things (IoT). Edge computing in and from space may create a new domain for software application development.

AI and big data processing systems are likely to facilitate innovative ways to extract value from the massive volumes of new data coming from space-based instruments, creating a wide range of data-as-a-service options for a variety of clients.

The future of the space ecosystem

Addressing key challenges is essential for the continued growth of the sector, both internationally and locally. According to the Deloitte Space Study, the top three concerns of executives in the commercial segment of the space industry were:

1. Supply chain disruptions.
2. Developing space-grade products and components at competitive costs.
3. Regulatory requirements and approval timelines.

Other key challenges cited were shortage of skilled talent, reduced capital investment, enabling mass production to meet demand, and miniaturisation of electronic components, whilst the top three environmental or sustainability-related concerns were space debris, congestion, and security. The need for integration and implementation of global regulations was also acknowledged as critical[14].

1.1.3. Space Ecosystem Development and Industry Transformation

Key to SANSA's mandate is to support the creation of an environment conducive to skills and industrial development in space science and technology in both the upstream and downstream space industries. To achieve this as part of its growth and sustainability focus SANSA needs to drive the national space ecosystem, as shown in the figure below, which includes the following elements:

1. **Thematic areas** – focus on specific applications, products and services in the classical space domains, namely, Earth observation, telecommunications, navigation, positioning, and timing, space exploration, and space science. SANSA's space weather capability supports these domains through products and services that mitigate the harmful effects of space weather on the users of these technologies.
2. **Building blocks** – these comprise the foundational elements that determine the strength and success of the ecosystems in terms of the human capital to develop local expertise, industry development and support, ground- and space-based infrastructure, and international partnerships.
3. **Functional activities** – these relate to the day-to-day activities that space initiatives are engaged in and range from establishing

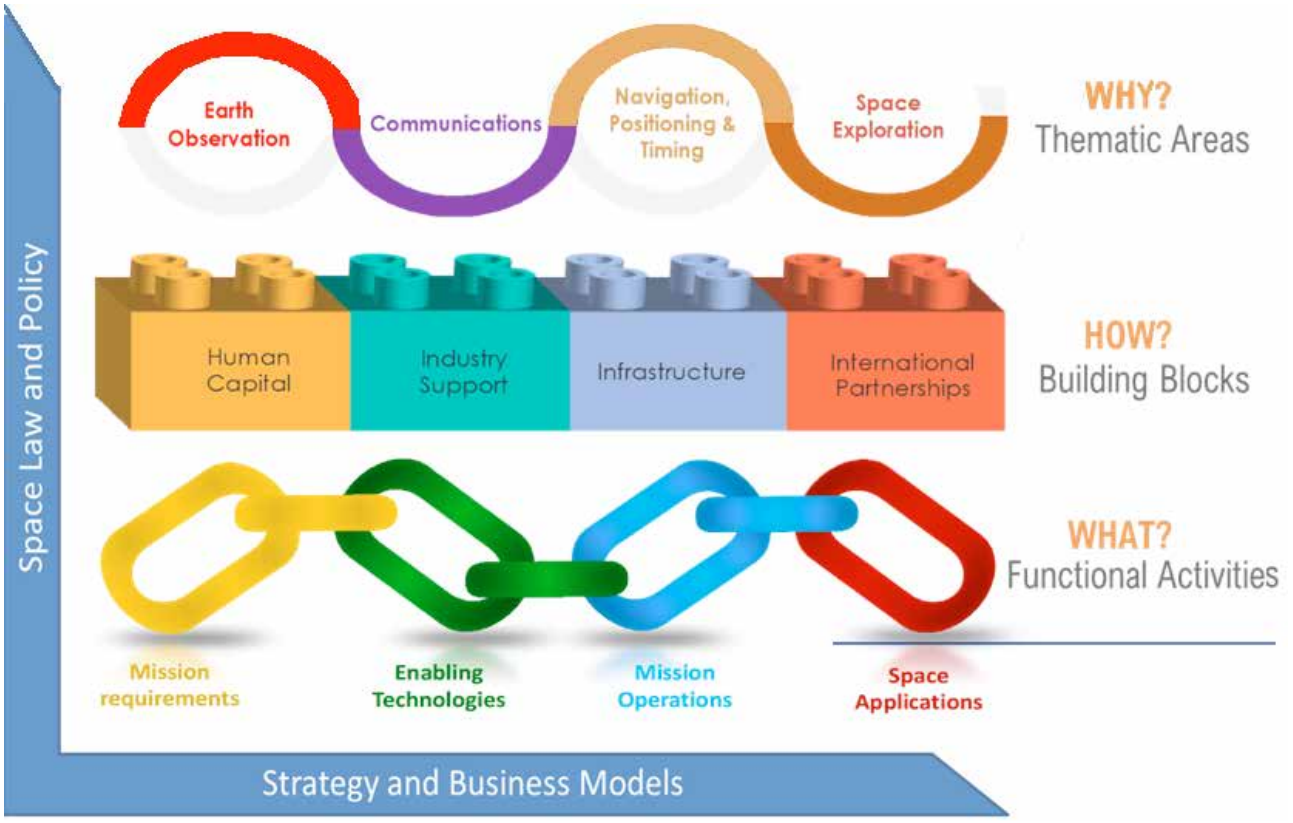
13 https://www2.deloitte.com/za/en/insights/industry/aerospace-defense/future-of-space-economy.html (Accessed 30 August 2023)

14 https://www2.deloitte.com/za/en/insights/industry/aerospace-defense/future-of-space-economy.html (Accessed 30 August 2023)

requirements for specific missions, engaging in RD&I activities for enabling technologies, developing space systems and technologies to be delivered to the operational environment, operations of missions, and the development and use of space applications.

4. **Space law and policy** – the appropriate framing of laws and policies as it relates to the national space ecosystem is vital, as it determines the key governance constructs required for effective space programmes.
5. **Strategy and business models** – strategic instruments are key to providing the necessary direction and aspiration for the national space ecosystem, and the associated business model informs the architecture and institutional arrangements.

Figure 5: Key elements of a space ecosystem



Transformation of the local industry

Given the cross-sectoral nature of the space sector it is difficult to quantify the size of the sector in South Africa. Research conducted in 2011 by the Foundation for Space Development indicated that there were approximately 200 firms involved across the space value chain (FSD, 2011). As of 2024 the number of firms is likely to have increased. There needs to be an industry review study undertaken to the determine the status as well as the desired growth and transformation path.

Whilst SANSA is advancing the national space ecosystem, cognisance is taken of the underlying systemic challenges facing the local space industry, which can be postulated as follows (highlighted in blue, with desired state reflected in green):

1. The growth of the local space sector **has stagnated with limited (significant with strong)** support afforded by SANSA and other public sector institutions.
2. This affects both the upstream and downstream segments, but especially the downstream which **has not historically**

received (is now receiving) targeted government support.

3. The attendant effect of the status quo is as follows:

a) The financial sustainability of the industry is **precarious (robust)**;

b) There is **limited (powerful)** local beneficiation **due to (and less)** reliance on international data vendors;

c) **Inadequate (ample)** access to the local, African, and global markets;

d) **Slow (fast)** pace of transformation of the industry; and

e) **Limited (a healthy)** number of SMEs and new entrants.

This transition of the local industry from the **current state** to the **future preferred state** will require a directed and concerted effort to transform the sector, with efforts being ramped up in the 2025–2030 planning cycle. This includes:

1. Creating ecosystems that support and encourage black excellence and innovation through funding mechanisms for business development and industry incubation. The NeoFrontiers Fund is a starting point and aimed at crowding in support from DFIs and development agencies whose core business is to support entrepreneurship and grow sustainable SMEs.
2. Promoting innovation and encouraging intrapreneurship by rewarding excellence and developing novel ideas that may be commercialised.
3. Inculcating a high-performance culture, through targeted human capital development programmes for specific skill sets. These should include local academia and strategic international partner universities.
4. Being deliberate in building networks of black engineers across the value chain.

1.1.4. PESTEL Analysis

An analysis of the key macro-environmental factors impacting on the work of SANSA is summarised in the table below.

Table 8: Summary of PESTEL factors for SANSA

POLITICAL	ECONOMIC	SOCIAL	TECHNOLOGICAL	ENVIRONMENTAL	LEGAL
· Impact of geopolitical events on SANSA ability to leverage opportunities. · Growing involuntary migration, requiring responsiveness and agility. · Fragmentation of globalisation and coalescing around the two economic superpowers. · Pockets of conflict, corruption, and political volatility across the continent. · Backlash from African countries for xenophobia in South Africa. · Implementation of GNU statement of intent / MTDP 2024-2029. · Pressure on SOEs to perform and account – drive inclusive economic growth and a capable state.	· Subdued global economic growth with a challenging long-term outlook. · Solid growth in parts of Africa, but limited space sector impact. · Stagflation in South Africa with low growth, high unemployment, and high living costs. · Limited number of technology companies in the science and technology sector. · Significant commercial and investment opportunities in high technology sectors such as space-related. · Energy and logistics constraints affecting supply chains, project timelines. · Fiscal constraints limiting public funding · High costs of technology and space infrastructure.	· Widespread poverty due to high unemployment, especially amongst youth. · Deteriorating social cohesion. · Mental health issues related to financial distress and poverty. · Threat of new pandemics/epidemics. · Frequent service delivery protests. · High levels of crime and corruption. · Space-related education not included in national curricula. · Lack of social equity in space sector. · Lack of knowledge of societal benefits of space. · Social upliftment opportunities through space-related programmes.	· Increase in cybercrime and cyberattacks. · Growing opportunities for space-based decision-support tools. · Emergence of advanced technologies in space research, satellite development, and data analytics. · Need for enhancing sat. communication, sensor capabilities and propulsion systems. · Capabilities for managing large volumes of satellite data and data security. · Collaboration opportunities for technology transfer. · Forecast of rapid expansion of space-enabled technologies and related activities on Earth.	· Emerging requirement for accessing finance and competing globally as a responsible corporate citizen (ESG integration). · Climate change, adaptation, natural disasters, and biodiversity loss are key future risks. · Trillion-dollar opportunities in climate action and just transition interventions. · Mitigating space debris and promoting sustainable orbital practices. · Use of Earth observation satellites to contribute to climate change research. · Integrating circular economy principles in space operations/ missions.	· Adhering to national and international space laws, regulations, and treaties. · Implementing strategies to mitigate legal risks related to liability, insurance, and international frameworks. · Adapting to emerging legislation and regulatory changes. · Protecting intellectual property (IP) rights related to space technologies and navigating international IP issues. · Complying with privacy and data protection laws in satellite operations and safeguarding personal and sensitive data.

Table 9: PESTEL implications and planning considerations

Political	• Leverage inclusion of the STI Decadal Plan in the MTDP 2024–2029 with flagship projects to increase South Africa's national space capacity in the interests of sovereignty, security, development priorities, economic growth, and scientific advancement. • The National Space Programme and National Space Strategy provide a framework for SANSA's operations, emphasising the development of space science and technology, capacity building, and international collaboration. • Compliance with national and international regulations and conventions, including those related to space debris, satellite communications, and environmental impacts, is crucial for SANSA's activities.
Economic	• Government funding is a significant source of finance for SANSA. Fiscal constraints mean SANSA needs to grow its external revenue and leverage strategic partnerships to secure investment for projects, operations, and research activities. • SANSA has a vital leadership role to play in increasing the space sector's contribution to economic growth through job creation, technological innovation, missions, and the development of related industries such as telecommunications, space weather, and navigation systems. • Economic conditions globally and international collaborations require significant space economy advocacy to leverage funding opportunities whilst managing the costs of importing space-related technologies and materials.
Social	• Outreach, educational programmes, and public engagement activities are vital for promoting awareness and interest in space science, technologies and its socio-economic benefits. • There is a growing need for skilled professionals in STEMI fields. SANSA's role in promoting STEMI education and training is crucial for building the human capital needs of the NSP. • SANSA needs to be vocal in promoting the societal and quality of life benefits of space, for example, in thematic areas such as improved disaster management, environmental monitoring, and connectivity in remote areas.
Technological	• For South Africa to become an intermediate space nation, SANSA needs to be at the forefront of innovation to leverage the rapid advancements in satellite technology, data analytics, and space exploration techniques. • The agency must enhance utilisation of space technologies and decision-support tools to boost local government capacity in alignment with the DDM and STI Decadal Plan. • Investment in RD&I is essential for staying at the forefront of space technology. Strengthened partnerships with universities, research institutions, and SETAs are needed to bolster SANSA's technological development. • Protecting space assets and data from cyber threats is increasingly important. SANSA needs to ensure it establishes the cybersecurity measures to maintain the integrity and security of operations.

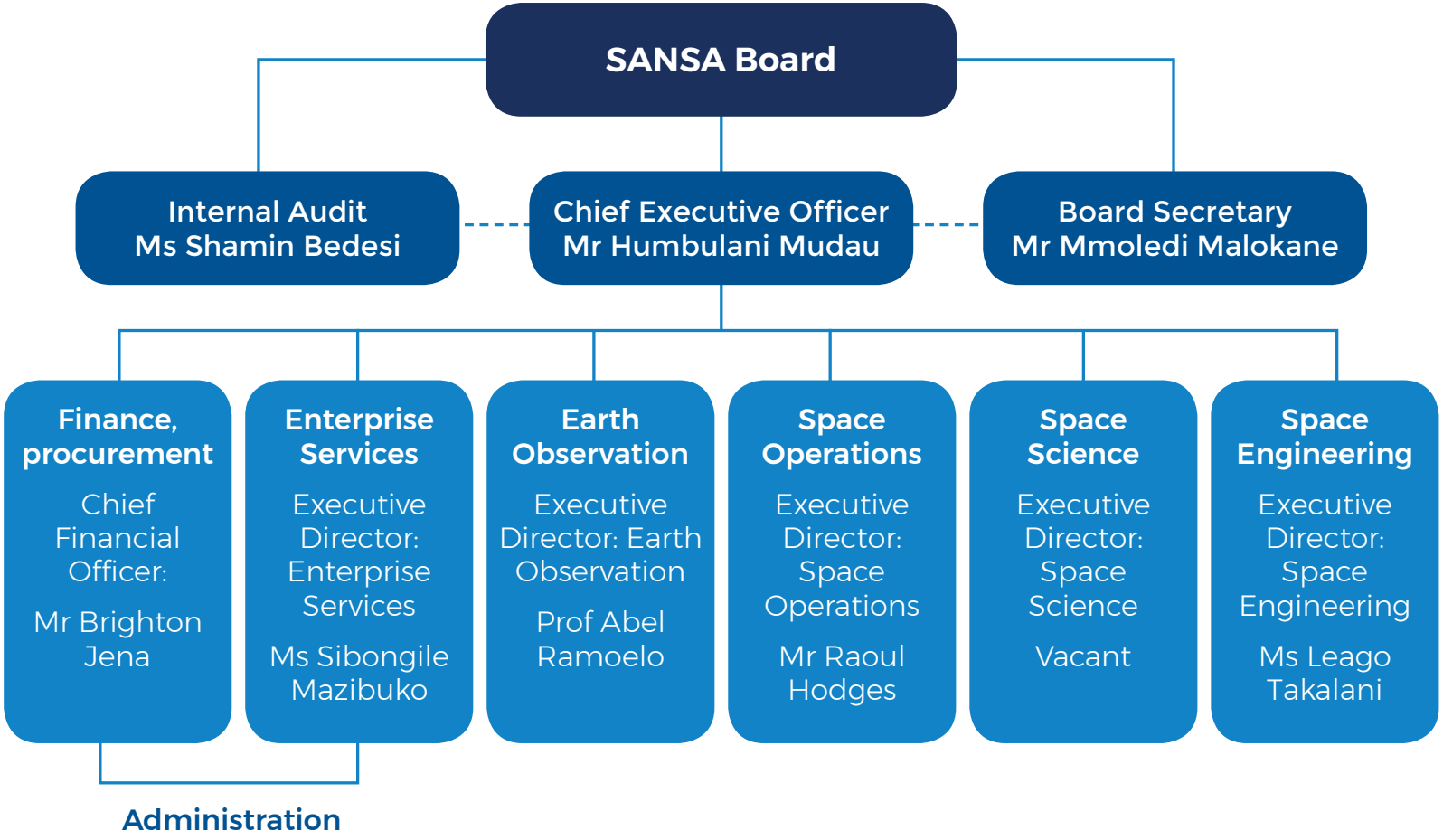
Environmental	· SANSA needs to enhance its role in environmental monitoring, climate change research, and solutions to mitigate the impacts of climate change through satellite data and decision-support tools. · As a global corporate citizen, SANSA must adopt sustainable practices in its operations, including minimising space debris and reducing the environmental impact of its activities on Earth and in space. · Space technology is vital for monitoring natural disasters such as droughts, floods, and fires, providing valuable data for disaster management and mitigation efforts.
Legal	· SANSA must comply with national and international space laws, treaties and agreements, such as the Outer Space Treaty and the Convention on Registration of Objects Launched into Outer Space. · SANSA must ensure the protection of intellectual property IP rights for innovations and technologies developed by the agency and its partners. · Ensuring the privacy and security of data collected and processed by SANSA, especially sensitive information, is a legal and ethical obligation. · SANSA must keep abreast of national import/export controls and international trade regulations to avert negative effects on its operations.

1.2. Internal Environment Analysis

SANSA operates within a complex internal environment that is shaped by its strategic mandate, stakeholder relationships, organisational capacity, and financial constraints. This internal analysis explores the organisation's strengths, weaknesses, and opportunities for growth and sustainability, highlighting the key initiatives and internal factors that will drive SANSA's new business model and strategic focus over the five-year planning period.

SANSA's approved organisational structure is reflected in the figure below.

Figure 6: SANSA organisational structure



The Budget Programme Structure is as follows:

- **Programme 1:** Administration
- **Programme 2:** Earth Observation
- **Programme 3:** Space Science
- **Programme 4:** Space Operations
- **Programme 5:** Space Engineering

1.2.1. Reflection on Past Performance

SANSA's Revised 2020–2025 Strategic Plan outlined six strategic outcomes. Progress as of end March 2024 is shown in the table below.

Table 10: Progress against 2020-2025 strategic outcomes

Outcome	Outcome Indicator	Baseline	Five-Year Target (March 2025)	Progress (March 2024)
MTSF 2019–2024: Priority 2 – Economic transformation and job creation				
Outcome 1: Increased space-relevant knowledge that supports the developmental agenda	O1.1. Average research publication rate for South African researchers in direct space-related areas	New outcome indicator	Average annual research publication rate of three (3) for South African researchers in direct space-related areas	Total number of publications: 135 (Publication rate not measured)
MTSF 2019–2024: Priority 2 – Economic transformation and job creation				
Outcome 2: Stimulated and growing, inclusive space sector	O2.1. Average operational expenditure on SMEs	New indicator	Lower target: 20% Desired target: 30% Upper target: 40%	39.75% *(Achieved)*
MTSF 2019–2024: Priority 3 – Education, Skills, and Health				
Outcome 3: Increased human capacity for the implementation of key space initiatives	O3.1. Percentage of graduated students to registered students in postgraduate space-related fields nationally	New indicator	Up to 20% of all registered (in space-related fields) postgraduate students graduate with space-related degrees	390 students and interns supported *(Percentage of graduated to registered students not measured)*
	O3.2. Percentage students and interns mentored by SANSA absorbed by the formal labour market	New indicator	Up to 50% of all students and interns mentored by SANSA absorbed by the formal labour market	307 students and interns supported, with 35 student graduations *(Labour market absorption not measured)*

Outcome	Outcome Indicator	Baseline	Five-Year Target (March 2025)	Progress (March 2024)
MTSF 2019–2024: Priority 1 – A capable, ethical, and developmental State				
Outcome 4: SANSA positioned as a key enabler for the implementation of government's space-related policies	O4.1. Percentage of government departments and public entities that are using space products and services	42% of government departments and public entities that are using space products and services	80% of government departments and public entities that are using space products and services	63% *(Not achieved)*
	O4.2. External audit outcome	Unqualified audit opinion with material findings	Achieve and maintain an unqualified audit opinion with no material findings	Unqualified external audit opinion with no material findings for FY2023/24 *(Achieved)*
MTSF 2019–2024: Priority 2 – Economic transformation and job creation				
Outcome 5: Enabling infrastructure developed and upgraded to support the space sector value chain	O5.1. Percentage growth in the Rand value of the national infrastructure asset base	R473.7 million value of the national infrastructure asset base	Lower target: 25% Upper target: 50%	6% *(Not achieved)*
MTSF 2019–2024: Priority 7 – A better Africa and World/Priority 2 – Economic transformation and job creation				
Outcome 6: Increased participation of the national space programme in the regional and global space market	O6.1. Percentage growth in revenue generated from space products and applications	R405 million from Space Operations (based on the previous five-year term)	Lower Target: 5% (primarily through space operations) Upper Target: 8% (Including new revenue streams)	7% *(Achieved)*
	O6.2. Percentage growth in products and services provided to the market	New indicator	Lower target: 20% Upper target: 40%	80% *(Achieved)*

The following is required to avert failure to reach targets by the end of the planning period, March 2025. These include:

1. Development of data collection instrument: South Africa's average research publication rate in space-related areas;
2. Development of data collection instrument: Percentage of graduated students to registered students in postgraduate space-related fields nationally;
3. Development of data tracking instrument: Percentage of students and interns mentored by SANSA absorbed by the formal labour market; and
4. Growth in the rand value of the national infrastructure asset base: Achieve the milestones for rollout of key infrastructure projects – SIH, EO-Sat1, AIT and MTJ.

SANSA has consistently achieved over 90% of its APP targets in the period of the 2020–2025 Strategic Plan. For the 2023/24 financial year 88% of targets were achieved, affected by the non-achievement of the milestones for implementation of the

Matjiesfontein deep space facility and the project for the upgrade of the AIT facility. A ramp up of activities is underway in the 2024/25 financial year in an effort to deliver on the project milestones.

Key performance trends:

Over the past three to four years, SANSA has steadily contributed to South Africa's national developmental priorities. A trend analysis shows consistent progress in several areas, alongside some ongoing challenges.

1. Space products and developmental priorities – SANSA has played a key role in providing space products and applications aligned with government priorities, particularly through the ERRP. A significant achievement was the establishment of its space weather capability in 2022/23, positioning South Africa in the global space sector and opening new opportunities.
2. SIH development – the SIH remains a strategic priority for modernising South Africa's space industry. However, delays in securing funding during 2022/23 pushed its rollout into 2023/24 and 2024/25. Owing to its importance to building the national space capability, SANSA needs to ensure timely delivery and expenditure against the project milestones.
3. Matjiesfontein Deep Space Network (MTJ) – the MTJ is part of SANSA's infrastructure expansion, aimed at enhancing South Africa's deep space capabilities. Progress in 2022/23 and 2023/24 included upgrades such as power reticulation and antenna installations. The project has also renewed SANSA's collaboration with NASA, positioning the country in global space exploration whilst supporting local community development.
4. Procurement and SME support – SANSA has consistently supported SMEs, with an average of around 40% procurement spend directed toward these enterprises over the past four years, with >45% procurement spend directed at Black-owned enterprises. SANSA has managed less than 20% procurement spend on women-owned businesses and approximately 6% procurement spend on youth-owned businesses. The entity has not tracked procurement spend to enterprises owned by persons with disabilities and this will be addressed in the 2025 – 2030 strategic term.
5. B-BBEE compliance – SANSA achieved a B-BBEE compliance level 6 in the 2023/24 financial year, an improvement on the compliance level 8 achieved in 2020/21, off the non-compliance baseline level achieved in 2019/20.
6. Space operations and mission growth – SANSA's Space Operations Programme has seen significant growth in mission support, rising from 15 missions in 2020/21 to 52 missions in 2023/24. The expansion has been driven by projects such as OneWeb, which enhances internet access in remote areas.
7. Governance and human resource development – SANSA achieved a clean external audit outcome in 2022/23 and 2023/24, reinforcing its governance practices. It has also made progress in addressing human resource challenges through skills audits, succession planning, and the salary parity project.
8. Research productivity and innovation – SANSA consistently exceeds its research productivity targets, achieving a productivity score of 1660.74 in 2022/23. The organisation's research has focused on key national priorities such as disaster management and climate change, exemplified by its leadership in the BRICS Remote Sensing Satellite Constellation (RSSC) Project.

1.2.2. Reflection on Human Capacity and Capabilities

The table below highlights SANSA's capacity and capabilities, revealing significant human capital constraints. The overall number of employees at the end of the 2023/24 financial year was 213, the same as the beginning of the financial year (eight appointments and eight terminations). The vacancy rate at the end of the 2023/24 financial year was 27% and, while new positions have been approved and recruitment of key critical positions has taken place to support implementation of the SIH, budgetary constraints to fill the vacant positions remain a concern.

In the 2024/25 financial year, while the overall number of employees increased to 226, indicating some progress in recruitment, the vacancy rate only saw a marginal improvement, decreasing to 25%. This reflects a modest reduction but underlines that filling these vacancies remains a major challenge due to budgetary constraints.

Vacancies are particularly prevalent within the Earth Observation (EO) and Space Engineering (SE) Programmes, both of which are crucial for SANSA's growth. The Earth Observation programme is responsible for developing decision-support tools with the NSP thematic areas and is a key component of SANSA's contribution to the STI Decadal Plan and the MTD) 2024–2029. Space Engineering is tasked with building the national space capability through the implementation of the space sensors and satellite build programme. While there are signs of improvement in some areas, SANSA must continue prioritising the recruitment of critical roles to achieve its strategic goals, particularly in the EO and SE Programmes. While some progress has been made, there has been a small but insufficient improvement considering the strategic importance of these units. The budgetary constraints need to be addressed to ensure that approved positions can be filled efficiently, supporting the organisation's long-term objectives. Without the requisite resources, it will be a challenge. Addressing these resource constraints is therefore a critical priority for the upcoming planning period.

Table 11: Employment and vacancies per programme

Programme	Vacancy Percentage 2023/24 FY	2024/25 No. of employees	2024/25 Approved Posts	2024/25 Vacancies	Vacancy Percentage Q2 2024/25
Administration	10%	66	82	16	19.5%
Space Engineering	53%	7	27	20	74%
Earth Observation	15%	26	53	27	51%
Space Science	18%	67	71	4	5.6%
Space Operations	85%	60	68	8	12%
TOTAL	**27%**	**226**	**301**	**75**	**25%**

Employment equity:

The overall equity employment (EE) implementation progress over the performance period has been successful, with most occupational levels meeting or exceeding their targets. 77.6% of males in the organisation are black (African, Coloured and Indian) whilst 89.6% of females are black. The ratio of male to female employees is 51%, however, the entity only has four persons with disabilities in its employ (1.8%). The focus looking ahead is on maintaining the achieved representation levels and ensuring sustained progress in areas where targets were not fully met.

1.2.3. Information and Communications Capabilities

While the ICT systems currently in place are high-quality and have effectively supported the organisation's core functions, the infrastructure faces challenges due to budget constraints and inadequate capacity, which impacts SANSA's ability to deliver critical ICT improvement projects. The focus has been on implementing non-resource-intensive projects to maintain resilient systems and services. However, SANSA's IT operating model remains undefined, leading to inefficiencies in governance, compliance, and standardisation across systems.

To support SANSA's *RAMP-UP Phase*, several ICT and digitalisation constraints need to be addressed: budgetary limitations, capacity and skills gaps that hinder the implementation of the ICT strategy, and the development of an effective ICT operating model for improved governance and standardisation. There are also opportunities to leverage emerging technologies driven by the 4IR and to capitalise on space industry growth and SANSA's role in hosting international platforms. Additionally, SANSA needs to focus on defining its enterprise architecture to align ICT with broader organisational goals and ensure technology effectively supports business objectives.

1.2.4. Financial Performance and Resources to Deliver the New Strategy

The financial table provides insights into the budgetary challenges faced by SANSA. It reflects that SANSA is confronted with a significant challenge regarding its financial resource base:

- The parliamentary grant (PG) declined from R143.4 million in 2020 to R137.6 million in 2025.
- Employment costs increased from R125.1 million to R236.7 million over the same period.
- The ratio of employment costs to the PG rose from 0.87 to 1.72 between 2020 and 2025. While the SIH funding covers this in 2025 and 2026, it presents a challenge from 2027 when the SIH funding is exhausted.
- The core issue is that SANSA receives funding for capital projects, but not for the operational expenditure needed to sustain operations after capitalisation, until a project generates enough revenue to support itself.
- To maintain its cost structure, SANSA will need to significantly increase its revenue from exchange transactions starting in 2026. Each business unit must adopt a commercialisation approach, and SANSA needs to strengthen its business development capabilities to generate sustainable revenue, whilst balancing this with its good public mandate.

Table 12: Financial performance and budget considerations for the medium-term

SOUTH AFRICAN NATIONAL SPACE AGENCY													
Financial Performance for the years ending 31 March	**Actual**	**Actual**	**Actual**	**Actual**	**Actual**	**Revised Budget**	**Budget**	**Budget**	**Budget**	**Forecast**	**Forecast**	**Growth**	**Growth**
Amounts in R'000s	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2020-2025**	**2025-2030**
Revenue													
Grant income	**205 253**	**200 772**	**249 756**	**208 795**	**171 831**	**367 149**	**729 375**	**506 986**	**180 944**	**189 991**	**199 491**	79%	(46%)
Parliamentary grant	143 464	149 242	181 283	140 755	141 087	137 643	150 253	160 303	167 549	175 926	184 723	(4%)	34%
SIH		-	-	-	-	160 042	479 907	222 000	-	-	-	-	(100%)
Ring fenced grants	61 789	51 530	68 473	68 040	30 744	69 464	99 215	124 683	13 395	14 065	14 768	12%	(79%)
Revenue from exchange transactions	**102 884**	**75 642**	**75 000**	**131 627**	**160 937**	**137 065**	**186 160**	**304 156**	**320 935**	**336 982**	**353 831**	33%	158%
Contract revenue - public sector	22 525	18 005	16 710	22 349	23 511	29 659	70 663	170 485	162 058	170 161	178 669	32%	502%
Contract revenue - private sector	5 741	5 605	6 451	7 029	6 500	7 067	7 501	7 842	8 197	8 607	9 037	23%	28%
Contract revenue - foreign	74 618	52 032	51 839	102 249	130 926	100 339	107 996	125 829	150 680	158 214	166 125	34%	66%
Other Income	10 028	6 123	8 019	11 419	14 924	8 846	23 591	14 193	14 821	15 562	16 340	(12%)	85%
Total receipts	**318 165**	**282 537**	**332 775**	**351 841**	**347 692**	**513 060**	**939 126**	**825 335**	**516 700**	**542 535**	**569 662**	61%	11%
Employment costs	125 101	130 544	153 097	158 743	187 772	219 403	246 641	260 007	274 025	287 726	302 113	75%	38%
Other operating expenses	120 893	105 239	123 695	156 057	142 484	259 043	297 884	240 896	230 696	242 231	254 342	114%	(2%)
Cash operating expenses	**245 994**	**235 783**	**276 792**	**314 800**	**330 256**	**478 446**	**544 525**	**500 903**	**504 721**	**529 957**	**556 455**	94%	16%
Non-cash items	22 297	27 319	21 617	26 764	35 050	-	-	-	-	-	-		
Total operating expenditure	**268 291**	**263 102**	**298 409**	**341 564**	**365 306**	**478 446**	**544 525**	**500 903**	**504 721**	**529 957**	**556 455**	78%	16%
Surplus / (deficit)	**49 874**	**19 435**	**34 366**	**10 277**	**(17 614)**	**34 614**	**394 601**	**324 432**	**11 979**	**12 578**	**13 207**	(31%)	(62%)
Supplementary information:													
Capital expenditure	***40 363***	***15 141***	***48 813***	***53 360***	***22 944***	***168 586***	***394 601***	***324 432***	***11 979***	***12 578***	***13 207***	318%	(92%)
Total cash expenditure	***286 357***	***250 924***	***325 605***	***368 160***	***353 200***	***647 032***	***939 126***	***825 335***	***516 700***	***542 535***	***569 662***	126%	(12%)

1.2.5. Institutional Review

In adherence to the stipulations outlined in the DSTI Policy on Governance Standards for Science, Engineering, and Technology Institutions, SANSA solicited the services of the National Research Foundation (NRF) to conduct an institutional review of the agency's first 10 years of existence. The NRF is a recognised authority in the field, possessing specialised expertise in the evaluation of institutional frameworks and thematic domains encompassing Earth Observation, Space Science, Space Operations, and Satellite Engineering.

The overarching objective of the institutional review was to determine the relevance, efficiency, and effectiveness of SANSA, as well as access the progress the agency has made towards achieving its objectives and mandate, primarily as provided for in the SANSA Act and as guided by in the two Strategic Plans adopted over the period.

The Institutional Review final report identified eighteen (18) findings and recommendations. SANSA has made notable progress in the implementation of these recommendations with actions against fifteen (15) of these envisaged to be completed by the end of the 2024/25 financial year. The progress made is reported to the DSTI biannually as well as through the agency's Annual Report. The final report recommended key strategic initiatives for SANSA to embark on to serve as the cornerstone for fostering future growth and enhancing the agency's economic impact on the Space sector in South Africa. Efforts within these initiatives have been initiated and the agency will maintain its steadfast commitment to achieving the successful execution of these initiatives. The strategic initiatives identified include:

1) **The development of a draft implementation plan for the 30-year National Space Programme (NSP)**

The development of a draft implementation plan for the 30-year space programme will require a partnership and collaboration with multiple stakeholders in government, and independent space industry experts both locally and internationally. SANSA, with the support of the DSI and the SANSA Board, will lead the coordination of a joint working group that will be responsible for the development of the implementation plan. SANSA has outlined a roadmap that will guide the work of the joint working group. Several documents will be leveraged to aid in the conceptualisation of the plan, including the SANSA institutional review report, the Report on the Economic Value for Space Science and Technology by the CSIR, as well as the Space Infrastructure Hub Cost-Benefit Analysis (CBA).

2) **Identification of space champions**

This initiative will require the identification, selection and recruitment of candidates to become official space champions. Criteria will be developed to aid in the selection process and will need to consider individuals who have a strong influence in their respective industries; individuals with strong political capital; captains of the space industry and/or leaders in the investment communities. SANSA will collaborate and partner with these individuals to boost the case for space and to leverage their influence and networks for the benefit of space and to improve the SANSA brand equity within their communities and the broader South African public.

3) **A SANSA flagship programme**

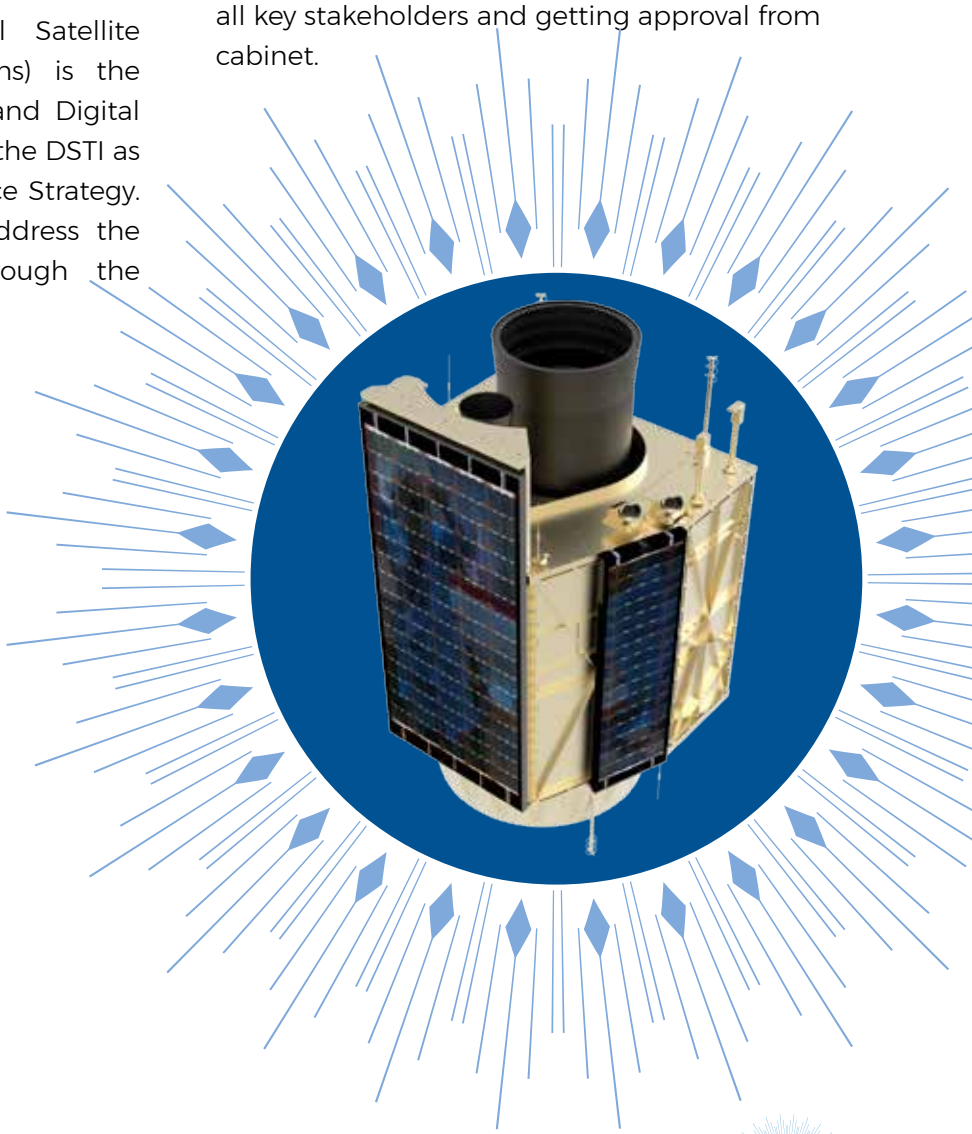
The MTJ DSN ground station has been earmarked as the ideal programme to create awareness and inspire the nation about space. The various campaigns that would be crafted around MTJ will also be an opportunity to address the issue of an integrated pipeline development approach for the space

ecosystem. This includes the promotion of STEMI subjects at school level and encouraging both undergraduate and post-graduate studies in space-related courses, as well as highlighting existing and potential careers in Space for young South Africans across all nine provinces. These efforts will greatly address the current challenges of lack of awareness by the broader South African public about our country's rich space heritage and contributes to the current low brand equity of SANSA. One of the significant opportunities in this regard is the involvement of South Africa in global space exploration missions. These have a potential to inspire the nation and the continent and instil a sense of pride to the nation given the pivotal role that our local expertise, capabilities and skills will play in this historic space mission.

4) The Development of the National Telecommunications Satellite Strategy

The custodian of the National Satellite Communication Strategy (SatComs) is the Department of Communications and Digital Technologies (DCDT) supported by the DSTI as the custodian of the National Space Strategy. The SatComs Strategy aims to address the challenge of digital divide through the deployment of a domestic satellite system particularly for many remote and underserved rural areas across South Africa.

Over the past 18 months, a draft SatComs strategy has been presented to the Director-Generals at both the DCDT and DSTI and subjected to a review by key government stakeholders from November 2022, which included representatives from Department of Defence (DoD), Department of Transport (DoT), Independent Communications Authority of South Africa (ICASA) and the State Security Agency (SSA), Air Traffic and Navigation Services (ATNS), CSIR and Presidency. A Social Economic Impact Assessment System (SEIAS) was conducted and has been successfully completed; the telecommunications satellite strategy would be issued a certification from the SEIAS process. The certification will be a green light towards a consultative process with all key stakeholders and getting approval from cabinet.



1.2.6. SWOT Analysis

The 2025/26 APP has taken into consideration the critical issues and focus areas derived from the analysis of SANSA's strengths, weaknesses, opportunities, and threats (SWOT), outlined below.

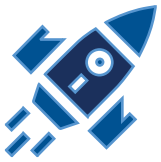
Table 13: SANSA SWOT Analysis

STRENGTHS	WEAKNESSES
· Proven space heritage and strong credibility as a partner of choice in Africa's space market. · Core skills base and highly skilled team capable of delivering on the National Space Programme. · Strategic geographic location for ground stations, research centres, and satellite tracking. · Established base infrastructure and unique facilities in space operations and science. · Strong international strategic partnerships and collaborations. · Diverse suite of space products and services with leading research output in space-related fields. · Leading research capability and output in space-related fields. · Clean audit outcomes, reflecting sound governance off which to build SANSA's brand equity. · Growing role in hosting international platforms and new projects like Matjiesfontein DSN.	· Financial sustainability pressures: Insufficient operational funding, rising operational costs, and limited revenue streams, especially for projects such SWx, SIH, and Matjiesfontein DSN. · Human capital constraints: Under-resourced in Earth Observation and Space Engineering programmes, with an insufficient talent pipeline and integration of space education. · Operating model inefficiencies and the lack of a value chain / project-based approach to delivering projects and services. · Ageing infrastructure: growing maintenance costs and geographic challenges affect facility upgrades. · Inadequate external brand visibility, limiting public awareness of SANSA's societal and economic contributions. · Although the broad transformation agenda is improving, there remains a lack of focus on developing black SMEs in space-related industries. · Dependence on Schedule 3A restrictions, limiting flexibility in funding, cash retention, and commercialisation efforts. · High overhead costs limiting competitiveness and narrow margins in project delivery. · Organisational culture challenges with misalignment on commercialisation and the new business model.

OPPORTUNITIES	THREATS
· Expansion of EO and AIT infrastructure to meet evolving user demands. · Revenue growth through commercialisation, leveraging SIH funds, and developing new products and services. · Strategic partnerships with BRICS and leveraging funding opportunities for space projects. · Leading AI and digital innovation in the space sector, positioning SANSA as a global leader. · Enhanced brand identity and visibility to increase public and institutional value. · Leveraging the DDM for local government adoption of decision-support tools to enhance service delivery and governance. · Strengthening ties with political champions to promote space relevance and secure support. · Playing a larger role in addressing national challenges like disaster management and illegal mining.	· Competition for scarce specialised skills and the inability to attract and retain top talent. · Disruptive technologies that may render current products obsolete. · Slow pace of government bureaucracy hindering project execution and funding. · Keyman dependency and risk of losing critical skills to competitors or external entities. · Rising energy costs and the need for alternative energy source, reducing resources for other initiatives. · Cybersecurity threats due to the potential for exponential organisational growth. · Legislative changes and civil actions affecting SANSA's operations and access to facilities.

1.2.7. Priorities for 2025/26

Table 14: Core business priorities for the 2025/26 financial year



Space Engineering

- National satellite build programme: Complete 60% of the Houwteq AIT Facility upgrades, and advance the development of the constellation of high-resolution satellites.
- Indigenous launch capability programme: Establish foundational elements for a national satellite launch capability, aligning with global space technology trends.

Earth Observation

- Develop Earth intelligence applications to address critical challenges, including food security, disaster risk reduction (early warning systems), and climate change.
- Expand SANSA's offerings into emerging sectors such as health innovation, energy, mining, and financial services, leveraging Earth observation technologies to unlock new growth opportunities.

Space Operations

- Achieve 90% completion of infrastructure at the Matjiesfontein (MTJ) Deep Space Ground Station, positioning it as a key player in deep space exploration.
- Increase commercial activities by hosting additional international facilities at Space Operations (HBK) and supporting various mission launches, including at least three exploration missions, reinforcing SANSA's role in global space initiatives.

Space Science

- Finalise a financial sustainability plan for the Space Weather Capability (SWx), ensuring its long-term operational viability.
- Advance the integration of space science elements into the Space Infrastructure Hub (SIH), promoting innovation and collaboration across sectors.

Space exploration

- Launch a recruitment programme for 'Afronauts' and commence their training to participate in future human spaceflight missions.
- Actively contribute to BRICS+ space station and lunar research programmes, with a focus on space situational awareness and traffic management.

SANSA Growth and Sustainability Strategy

- Partnerships and collaborations: Implement the international partnerships and collaborations strategy to attract investments in the national space capability, aligned with the priorities of the STI Decadal Plan.
- Significantly grow the revenue generated from the selling of space-based products and services by all SANSA programmes.
- Implement transformation and industry development strategies, including accelerator programmes for start-ups and targeted support for MSMEs to stimulate the local space economy.
- Transition SANSA to a Schedule 3A entity with revenue-generating capabilities, enabling reinvestment in capacity and capability development to support its strategic objectives.


MATJIESFONTEIN

PART C

MEASURING OUR PERFORMANCE

1. INSTITUTIONAL PROGRAMME PERFORMANCE INFORMATION

SANSA is constituted by the following programmes, which inform the packaging of this APP:

Programme 1: The **Administration** Programme provides administrative support and facilitates operational efficiency and cost-effective management, aligned with sound governance principles and the seamless integration and collaboration between SANSA programmes.

Programme 2: The **Earth Observation** Programme is primarily responsible for the acquisition and distribution of Earth observation data, value-added data products and services for societal benefit, and enabling nation.

Programme 3: The **Space Science** Programme leads multidisciplinary space science research and applications as well as postgraduate student training, science engagement, public awareness, and learner and educator support with STEMI subjects.

Programme 4: The **Space Operations** Programme is responsible for the provision of space ground segment support for data acquisition, conducting various space operations (including launch and early-orbit support), in-orbit testing, satellite lifecycle support and satellite mission control for national and international space industry clients and governments.

Programme 5: The **Space Engineering** Programme provides systems engineering and project management expertise, conducts satellite and subsystems analysis, leads the technical side of space programme project management through facilitated private space industry partnerships.

Informed by the legislative and policy mandates and strategic focus, the 2025-2030 Strategic Plan presents the impact statement of SANSA as:

Contributing to inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology

Listed below, the outcomes of the 2025-2030 Strategic Plan are aligned to MTDP 2024-2029:

Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure.

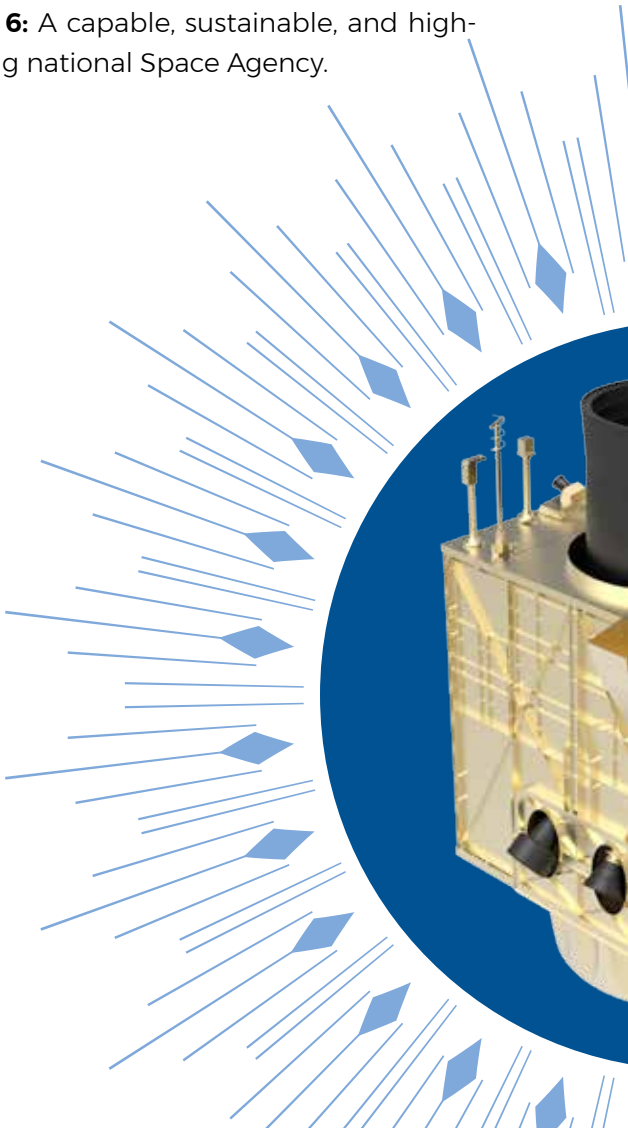
Outcome 2: Increased space relevant knowledge and decision-support tools that support the developmental agenda.

Outcome 3: Increased share of the global space market economy.

Outcome 4: A vibrant, competitive and transformed South African space industry.

Outcome 5: Increased human capacity in space science, technology and engineering.

Outcome 6: A capable, sustainable, and high-performing national Space Agency.

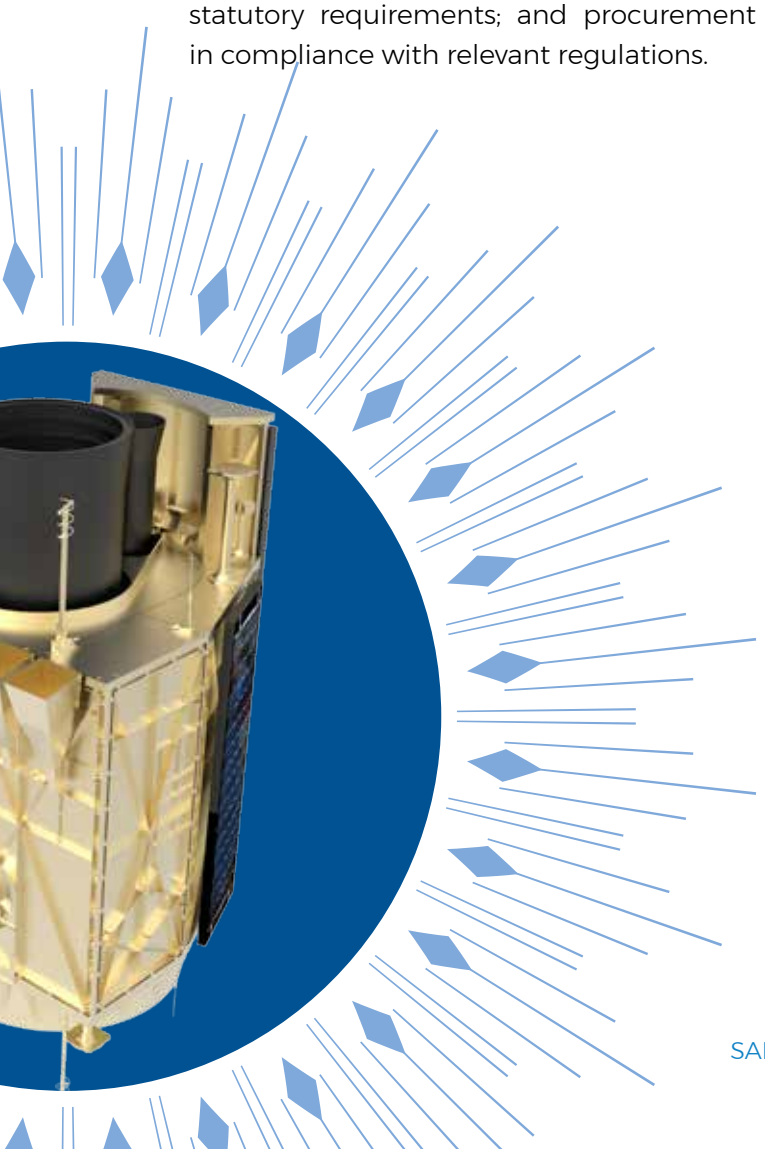


1.1. Programme 1: Administration

1.1.1. Programme Purpose

The Administration Programme provides management, administrative and technical support at an enterprise level across the organisation. This facilitates operational efficiency and cost-effective management, alignment with sound governance principles and the seamless integration and collaboration within the programmes within the organisation. The Administration Programme comprises two sub-programmes, as follows:

1. Enterprise Services: Human resources development and management; legal services; ICT; risk management; communications and marketing; and safety, health, and quality management (SHEQ).
2. Finance and supply chain management: Financial accounting, analysis, and planning; budgeting and cost control; financial reporting in line with internal and statutory requirements; and procurement in compliance with relevant regulations.



In contributing towards the SANSA impact of *"inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology"*, the Administration Programme directly supports delivery of the following 2025-2030 Strategic Plan outcomes:

Outcome 1: Enhanced national capability in space science, technology, and satellite infrastructure.

Outcome 4: A vibrant, competitive and transformed South African space industry.

Outcome 6: A capable, sustainable, and high-performing national Space Agency.

The 2025/26 Performance Plan of Programme 1 is reflected in the logframe tables below.

1.1.2. Programme 1: Outcomes, Outputs, Output Indicators, and Targets

Table 15: Administration programme – outcomes, outputs, output indicators and annual targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MEDIUM-TERM EXPENDITURE FRAMEWORK (MTEF) TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1 Enhanced national capability in space science, technology, and satellite infrastructure	1.1.Established partnerships actively contributing to the national space capability	1.1.1. Number of established partnerships actively contributing to the national space capability	-	-	-	New indicator	12	18	24
Outcome 4 A vibrant, competitive and transformed South African space industry	4.1. Targeted expenditure	4.1.1. Percentage contract operational expenditure spend on SMEs	20%	43%	45%	40%	42%	45%	50%
		4.1.2. Percentage total expenditure spend on Black-owned businesses	-	-	New indicator	45%	46.5%	48.5%	50%
Outcome 6 A capable, sustainable, and high-performing national Space Agency	6.1. High-performance initiatives implemented	6.1.1. Number of initiatives to transform SANSA into a high-performing agency	Skills Audit and Workplace plan not concluded	2	3	3	2	2	2
	6.2. Major brand awareness initiatives implemented	6.2.1. Number of major brand awareness initiatives implemented	-	-	-	New indicator	12	12	12

1.1.3. Programme 1: Output Indicators: Annual and Quarterly Targets

Table 16: Administration programme – output indicators, annual and quarterly targets

OUTPUT INDICATORS	2025/26 ANNUAL TARGET	QUARTERLY TARGETS			
		Q1 Apr - Jun 2025	Q2 Jul - Sep 2025	Q3 Oct - Dec 2025	Q4 Jan - Mar 2026
1.1.1. Number of established partnerships actively contributing to the national space capability	12	3	3	3	3
4.1.1. Percentage contract operational expenditure spend on SMEs	42%	42%	42%	42%	42%
4.1.2. Percentage total expenditure spend on Black-owned businesses	46.5%	46.5%	46.5%	46.5%	46.5%
6.1.1. Number of initiatives to transform SANSA into a high-performing agency	2	-	-	-	2
6.2.1. Number of major brand awareness initiatives implemented	12	3	3	3	3

1.1.4. Programme 1: Explanation of Planned Performance over the Medium-Term Period

The outputs of Programme 1 contribute to SANSA's strategic plan outcomes, as follows:

1) **Outcome 1: Enhanced national capability in space science, technology, and satellite infrastructure**

Building the national space capability is dependent on establishing and implementing strategic partnerships and collaborating with international, continental and national role-players for mutual benefit. SANSA's investment in partnerships is twofold: (1) increasing investment in international partnerships whilst carefully managing the risk of reduced sovereignty associated with reliance on external funding, and (2) prioritising collaborations with government departments such as the Department of Defence, Space Command, the Department of Cooperative Governance and Traditional Affairs, the Department of Communications and Digital Technologies, and the State Security Agency in partnerships aligned with common national interests.

SANSA aims to achieve at least three significant collaborations per quarter that strengthen the national space capability and contribute to the STI Decadal Plan, prioritising:

- Transformative research and innovation partnerships.
- International mobility programmes for training and skills development.
- Partnerships that leverage the synergy between international trade and innovation, including those that attract foreign investment.
- Leveraging the Multilateral Cooperation (BRICS+; ARMC) Continental and Global initiative (G20) that responds to SANSA strategic outcomes.

The Administration Programme plays a pivotal role in coordinating and reporting on collaborations and partnerships, ensuring alignment and accountability. However, successful implementation is a collective effort, relying on the active contributions and collaboration of all programmes to achieve shared objectives.

2) **Outcome 4: A vibrant, competitive and transformed South African space industry**

SANSA will be tracking the overall percentage spend in the 2025/26 financial year to ensure 42% of contract expenditure is directed towards supporting SMEs in accordance with the inclusive economic growth focus of the MTDP 2024-2029.

Key priorities include the ongoing execution of the B-BBEE Strategy and Implementation Framework, aiming for 46.5% of procurement spending to be directed toward Black-owned businesses. Within this, SANSA will strive to allocate 40% to women-owned enterprises, 30% to youth-owned enterprises, and 3% to businesses owned by persons with disabilities (PWDs).

Industry development will be enabled through SANSA's SME development and support programme, which leverages the NeoFrontiers Fund and other targeted interventions to empower aspiring Black entrepreneurs and enhance their competitiveness in space-related industries. The initiative aims to accelerate innovation, promote inclusivity, and drive the growth of a vibrant, transformed space economy.

3) **Outcome 6: A capable, sustainable, and high-performing national Space Agency**

Targeted interventions will be rolled out to foster a high-performance work culture that enhances engagement, retention, and productivity at SANSA. This will entail the development of a robust human capital programme and implementation of a comprehensive marketing strategy. By prioritising employee development

and promoting effective communication and collaboration, SANSA aims to create an environment where individuals are motivated to excel and contribute to the *RAMP-UP Phase* of SANSA's evolution.

In improving the SANSA brand awareness rating focus will be on the implementation of findings of the 2023/24 brand awareness survey conducted by the DSTI, and to progressively improve SANSA's brand awareness rating in each iteration of survey.

SANSA will continue to implement and address the findings outlined in the External Audit Action Plan to ensure the sustainability of a clean audit outcome and uphold high standards of financial governance and accountability.

Other key initiatives to strengthen organisational capabilities and performance:

- Review SANSA's operating model and organisational structure based on a value chain/matrix approach.
- Implement the approved leadership and development framework, as well as the coaching framework.
- Implement a change management and culture development plan through the appointed change management champions.
- Implement the succession management programme, as an outcome of the skills audit (ensure career ladders are established for all professionals).
- Review SANSA's funding model in line with the Growth and Sustainability Strategy.
- Develop and implement a clear marketing, communications and branding strategy.
- Implement initiatives to transform SANSA into a high-performing agency, including effective implementation of the new business model, reviewed SANSA values and culture improvement plan, as well as an enhanced performance management system and ICT architecture.

PRIORITIES RELATING TO WOMEN, YOUTH, PERSONS WITH DISABILITIES AND BLACK-OWNED BUSINESSES

The B-BBEE strategy prioritises women, youth, PWDs, and Black-owned businesses, focusing on preferential procurement, science engagement, supplier and skills development, and employment equity. SANSA aims to enhance PWD participation in its programmes. The performance management system includes talent management and personal development goals to boost employee skills. Additional initiatives will offer internships, volunteer programmes, and study assistance to build the capacity required for implementation of the 2025-2030 Strategic Plan.

These interventions aim to strengthen SANSA's global position and financial sustainability, supporting the government's transformation agenda for the benefit of designated target groups.

1.1.5. Programme 1: Resource Considerations

Table 17: Administration programme – revenue estimates

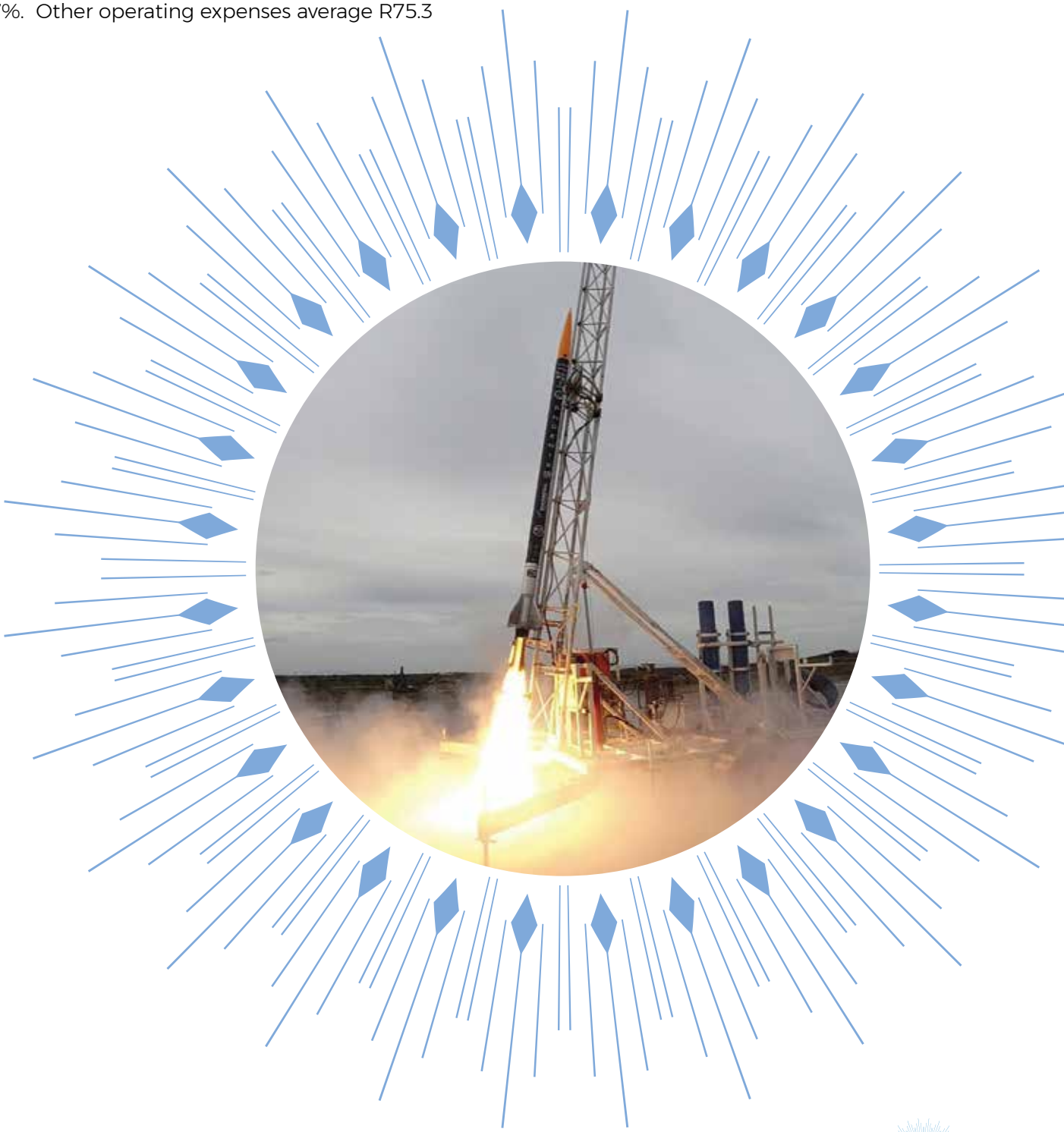
REVENUE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Revenue from Non-Exchange Transactions	**77 085 906**	**63 855 434**	**69 890 366**	**73 143 894**	**206 919 693**
Operational Transfers	**61 391 906**	**63 885 434**	**69 890 366**	**73 143 894**	**206 919 693**
PG - SIH	61 381	63 885 434	69 890 366	73 143 894	**206 919 693**
Ring fenced Grants	**15 704 000**	**-**	**-**	**-**	**-**
Space Science & Technology	15 704 000	-	-	-	**-**
Revenue from Exchange Transactions	**85 493 694**	**109 186 562**	**111 275 545**	**117 269 660**	**337 731 767**
Rendering of Services	-	-	-	-	**-**
Other Income	85 493 694	109 186 562	111 275 545	117 269 660	**337 731 767**
Interest Income	11 070 324	21 590 629	12 123 798	12 681 493	**46 395 920**
Cost recovery income	74 423 370	87 595 933	99 151 747	104 588 167	**291 335 847**
Total Revenue	**162 579 600**	**173 071 996**	**181 165 910**	**190 413 554**	**544 651 461**

Table 18: Administration programme – expenditure estimates

EXPENDITURE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Employee Related Costs - CTC	86 868 211	92 608 919	97 748 714	103 144 443	**293 502 076**
Incentive Bonus Provision	7 239 018	92 608 919	97 748 714	103 144 443	**293 502 076**
Board Member Remuneration	2 413 544	2 524 809	2 639 687	2 759 001	**7 923 497**
Repairs and Maintenance	732 236	1 958 448	2 047 557	2 140 107	**6 146 112**
Grants and Subsidies Paid	15 704 000	-	-	-	**-**
Training Expenses	4 396 310	6 276 094	6 561 656	6 858 243	**19 695 993**
General Exenses	39 476 281	61 236 317	64 022 569	66 916 389	**192 175 275**
Total Operating Expenditure	**156 829 601**	**172 321 996**	**181 165 910**	**190 413 554**	**543 901 460**
Surplus / (Deficit) for the year	**5 750 000**	**750 000**	**-**	**-**	**750 000**
Capital Expenditure	**5 750 000**	**750 000**	**-**	**-**	**750 000**
Machinery and equipment	5 000 000	-	-	-	**-**
Computer Equipment	750 000	750 000	-	-	**750 000**
Total Expenditure	**162 579 601**	**173 071 996**	**181 165 910**	**190 413 554**	**544 651 460**

The annual average budget for the Administration programme is R181.5 million over the MTEF period, which is funded from the Parliamentary Grant and interest income. The financial model includes cost recovery from operations to Administration to fund the centralised functions which supports operations.

The average employee costs are R105.9 million over the MTEF period, which includes an average annual inflationary salary increase of 5.7%. Other operating expenses average R75.3 million per year and include administration costs, support services, communication expenses, governance and compliance costs, communication costs and ICT infrastructure expenditure. Other operating expenses are also subject to annual inflationary adjustments of around 4.6% per annum, subject to available funding. Capital expenditure averaging of R250,000 per annum is included to address some of infrastructure requirements within the Administration programme in mainly ICT.



1.2. Programme 2: Earth Observation

1.2.1. Programme Purpose

The Earth Observation (EO) Programme provides applied research for the development and promotion of Earth observation products for socio-economic development. The programme's core function is geared towards implementation of the South African Earth Observation Systems Strategy (SAEOSS) and advancing the use of space applications and decision-support tools for socio-economic development through key thematic areas that include food security, water resource management, integrated spatial planning and land reform, disaster management, peace and security, oceans economy and global change.

Key functions of the programme include:

- Provision of research, product improvement and expansion for Earth observation value.
- Provision of satellite images, EO value-added products and services through the use of applied research.
- Implementation of the SAEOSS and advancing the use of space applications for socio-economic development.

In contributing towards the SANSA impact of *"inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology"*, the EO Programme directly supports delivery of the following 2025-2030 Strategic Plan outcomes:

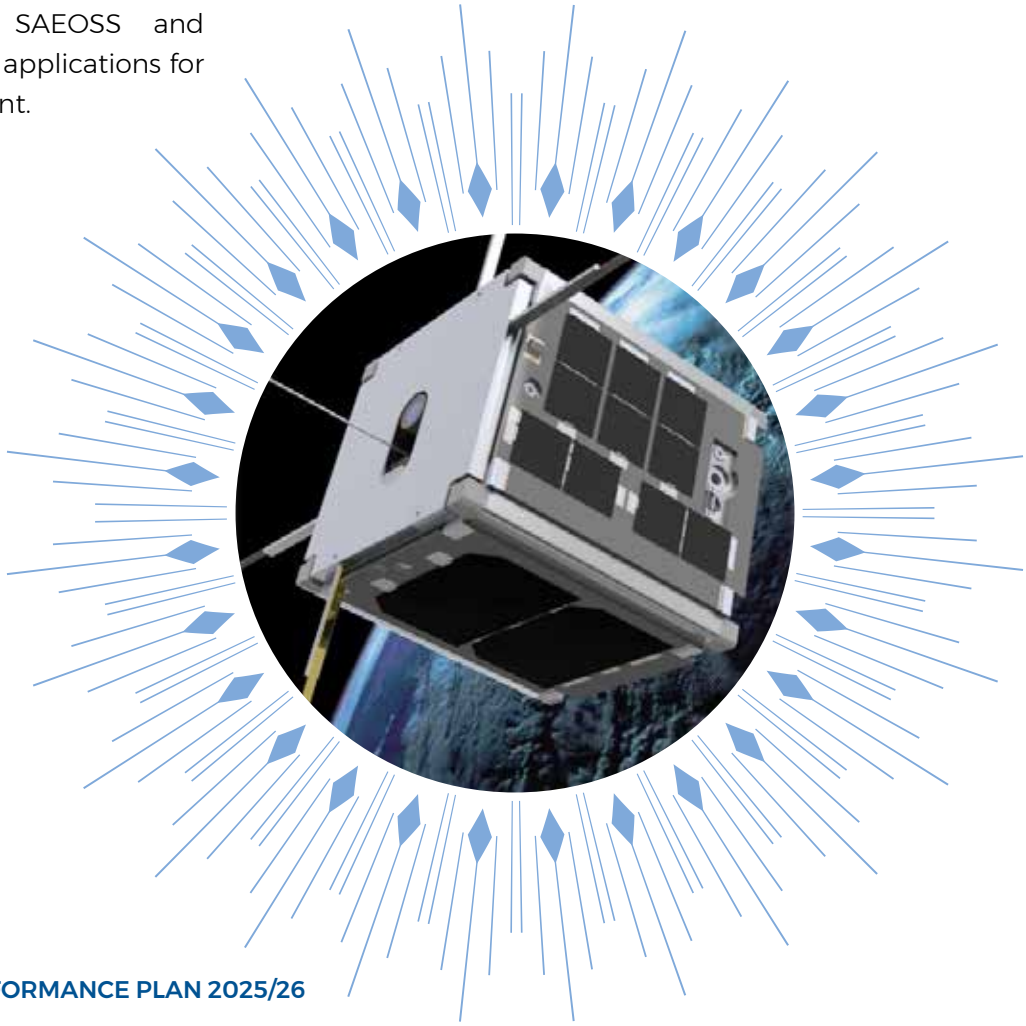
Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure.

Outcome 2: Increased space relevant knowledge and decision-support tools that support the developmental agenda.

Outcome 3: Increased share of the global space market economy.

Outcome 5: Increased human capacity in space science, technology and engineering.

The 2025/26 Performance Plan of Programme 2 is reflected in the logframe tables below.



1.2.2. Programme 2: Outcomes, Outputs, Output Indicators, and Targets

Table 19: Earth observation programme – outcomes, outputs, output indicators and annual targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1 Enhanced national capability in space science, technology, and satellite infrastructure	1.2. Accessible South African Earth Observation Systems (SAEOS) data	1.2.1. Functional SAEOS portal established	-	-	-	New indicator	Functional SAEOSS portal established by end Q2 2025/26	-	-
Outcome 2 Increased space relevant knowledge and decision-support tools that support the developmental agenda	2.1. Productive output of supported research and development (R&D) in space-related sciences	2.1.1. National research productivity score for supported R&D (Earth Observation)	517.64	488.70	350.24	150	300	350	400
	2.2. Decision-support tools deployed in key thematic areas	2.2.1. Number of decision-support tools developed in key thematic areas	-	-	-	New indicator	3	3	2
Outcome 3 Increased share of the global space market economy	3.1. Revenue generated from space operations, applications and services	3.1.1. Rand value of revenue generated from space operations, applications and services (Earth Observation)	-	-	New indicator	R50 million	R50.2 million	R140 million	R128 million
Outcome 5 Increased human capacity in space science, technology and engineering	5.1. Youth awareness of space-related sciences	5.1.1. Number of youth directly engaged on space-related sciences	22 224	42 707	58 076	41 000	50 000	54 000	56 000

1.2.3. Programme 2: Output Indicators: Annual and Quarterly Targets

Table 20: Earth observation programme – output indicators, annual and quarterly targets

OUTPUT INDICATORS	2025/26 ANNUAL TARGET	QUARTERLY TARGETS			
		Q1 Apr - Jun 2025	Q2 Jul - Sep 2025	Q3 Oct - Dec 2025	Q4 Jan - Mar 2026
1.2.1. Functional SAEOS portal established	Functional SAEOSS portal established by end Q2 2025/26	-	Functional SAEOSS portal established	-	-
2.1.1. National research productivity score for supported R&D (Earth Observation)	300	-	150	-	150
2.2.1. Number of decision-support tools developed in key thematic areas	3	-	-	-	3
3.1.1. Rand value of revenue generated from space operations, applications and services (Earth Observation)	R50.2 million	-	R25.1 million	-	R25.1 million
5.1.1. Number of youth directly engaged on space-related sciences	50 000	11 000	20 000	8 000	11 000

1.2.4. Programme 2: Explanation of Planned Performance over the Medium-Term Period

The EO Programme leads in Earth intelligence through the provision of satellite data, insights, and advanced techniques in support of the development of a future capable state. Key functions include satellite image acquisition, processing, archiving and dissemination; and development of EO products and services.

The outputs of Programme 2 contribute to SANSA's strategic plan outcomes, as follows:

1) **Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure:**

EO contributes to the national space capability through three main baskets of products and services: i) **Data as a Service:** This involves data acquired from both public and commercial sources, archived and stored by SANSA as part of its sensor portfolio; ii) **Remote Sensing Products:** The Programme will operate services designed to deliver high socio-economic value that are developed through standardised models and partnerships to ensure comprehensive national capabilities are leveraged; and iii) **Infrastructure (Platforms) as a Service:** Developing EO infrastructure (including data reception, processing, archiving, and distribution) is crucial for enhancing the growth and competitiveness of South Africa's Earth Observation Programme.

The SAEOS Strategy is a national initiative designed to coordinate the collection, integration, and dissemination of EO data to inform policy-making, stimulate economic growth, and promote sustainable development in South Africa. Developed through a collaborative and consultative process led by the DSTI, the strategy aims to align and integrate EO activities across the country.

A critical enabler of the strategy is the development and operationalisation of the SAEOS portal, which will serve as a central platform for accessing and managing EO data. Key deliverables for the planning period include:

- Deployment of a fully functional and accessible online SAEOS portal: The portal will provide seamless access to EO data and related resources.
- Data discoverability: At a minimum, the portal must enable discovery of SANSA EO data to improve accessibility and utility for various stakeholders.
- Metadata integration: Integration of metadata from at least one data custodian into the SAEOS portal, ensuring comprehensive and reliable data representation.

The SAEOS portal will serve as a user-oriented entry point to Earth observation resources, providing a web interface for accessing metadata, decision-support tools, and specialised portals. By centralising and promoting the use of EO data, the platform will enable collaboration, reduce duplication in data acquisition and tool development, and enhance the socio-economic impact of EO technologies across South Africa.

2) **Outcome 2: Increased space relevant knowledge and decision-support tools that support the developmental agenda:**

Research output: The EO Programme will aim to achieve a research productivity score of 300, which is a composite score based on publications, graduated students, research funding, and researcher rating achieved.

Decision-support tools: The Programme aims to distribute operational EO applications that deliver significant socio-economic benefits through collaboration between SANSA, research councils, universities, the private sector, and government entities. This collaborative approach ensures that the full suite of national capabilities is effectively deployed to maximise impact.

Three decision-support tools aligned with key thematic areas of the NSP are planned for development during the 2025/26 financial year. These tools will directly support the implementation of the STI Decadal Plan, addressing priority areas to enhance evidence-based decision-making and innovation-driven solutions. By the end of the financial year, SANSA aims to have three active users of the deployed decision-support tools.

3) **Outcome 3: Increased share of the global space market economy:**

In 2025/26, SANSA aims to generate R50.2 million in revenue through its Earth Observation (EO) programme by leveraging its space operations, applications, and services whilst building robust client networks to ensure long-term sustainability. A critical driver of this revenue is the successful deployment and active adoption of decision-support tools currently under development. This capability will be progressively strengthened as infrastructure related to the SIH is implemented, enhancing SANSA's value proposition and user engagement.

4) **Outcome 5: Increased human capacity in space science, technology and engineering:**

SANSA seeks to ensure enhanced awareness and training support is provided to learners and educators on space science and technology. It further aims to create awareness amongst the youth to maintain and/or grow a developmental pipeline whilst aligning science engagement activities to contribute to the DDM.

SANSA will optimise partnerships with national and international education organisations to enhance science engagement through learner visits, funding proposals, participation in science festivals, weeklong activities, career workshops, and the establishment of after-school science clubs. EO aims to raise the awareness of 50 000 youth, through direct engagement in the 2025/26 financial year.

PRIORITIES RELATING TO WOMEN, YOUTH, PERSONS WITH DISABILITIES AND BLACK-OWNED BUSINESSES

Through implementation of the NEOFrontiers initiative and partnerships with the NRF and other agencies such as provincial development agencies, SANSA will strengthen its contribution to the outcome of building human capacity (particularly for youth) in key space initiatives. SANSA will ensure continued support of government's transformation agenda for the benefit of women, youth, people with disabilities, and black-owned businesses.

SANSA will be tracking the EO percentage-spend in the 2025/26 financial year to ensure 42% of contract expenditure is directed towards supporting SMEs in accordance with the inclusive economic growth focus of MTDP 2024-2029. Key priorities include the ongoing execution of the B-BBEE Strategy and Implementation Framework, aiming for 46.5% of procurement spending to be directed toward Black-owned businesses. Within this, the EO Programme will strive to allocate 40% to women-owned enterprises, 30% to youth-owned enterprises, and 3% to businesses owned by persons with disabilities (PWDs).

1.2.5. Programme 2: Resource Considerations

Table 21: Earth observation programme – revenue estimates

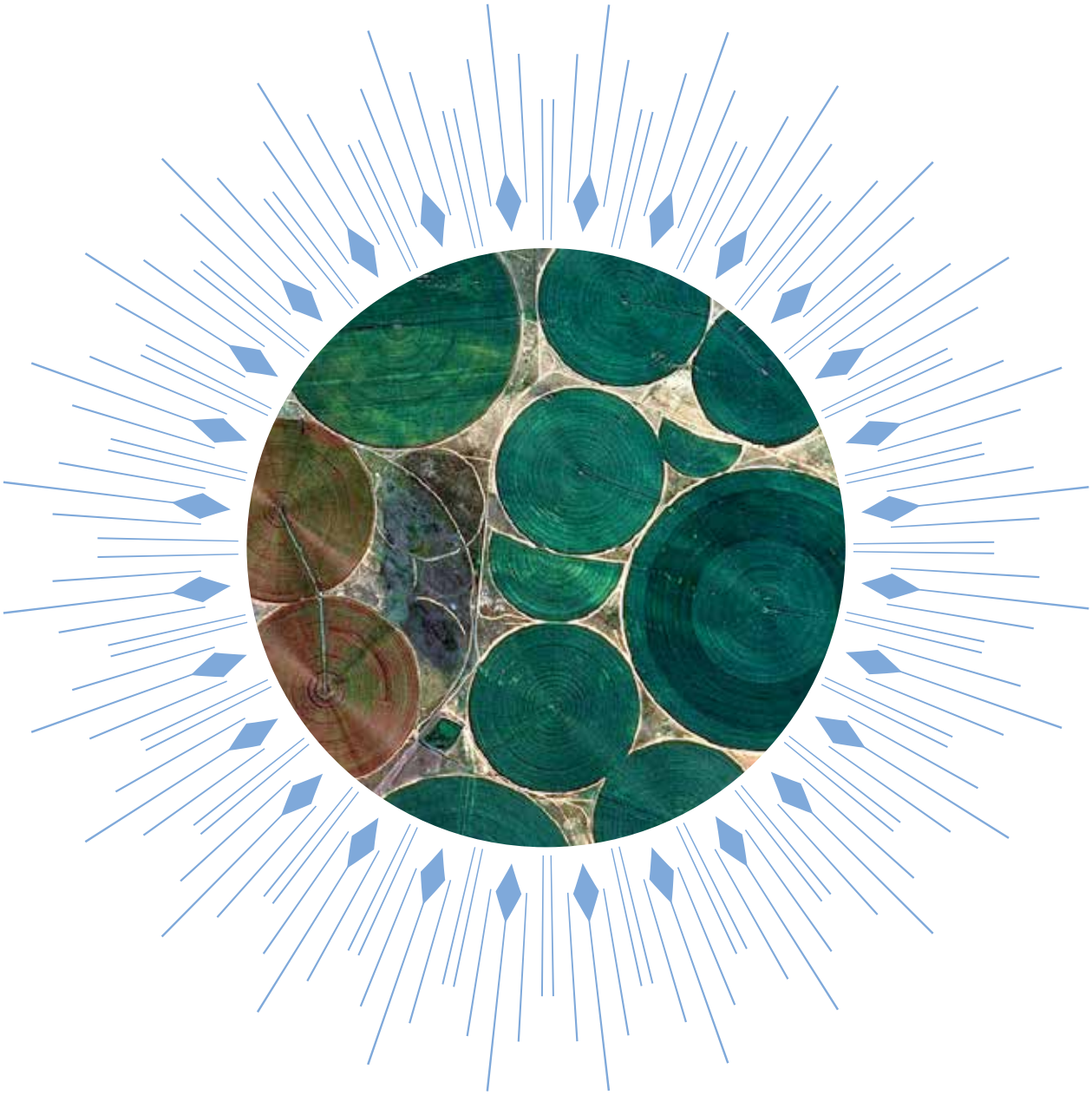
REVENUE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Revenue from Non-Exchange Transactions	**88 388 310**	**167 482 261**	**22 280 179**	**23 096 388**	**212 858 828**
Operational Transfers	**88 388 310**	**167 482 261**	**22 280 179**	**23 096 388**	**212 858 828**
Parliamentary Grant	11 388 310	20 560 678	22 280 179	23 096 388	**65 937 245**
PG - SIH	77 000 000	146 921 583	-	-	**146 921 583**
Revenue from Exchange Transactions	**50 550 000**	**50 559 220**	**140 701 154**	**128 821 631**	**320 082 005**
Rendering of Services	50 200 000	50 209 220	140 351 154	128 471 631	**319 032 005**
Contract Revenue - Public Sector	50 000 000	50 000 000	140 132 415	128 243 004	**318 375 419**
Contract Revenue - Private Sector	200 000	209 220	218 740	228 627	**656 586**
Other Income	**350 000**	**350 000**	**350 000**	**350 000**	**1 050 000**
Interest Income	350 000	350 000	350 000	350 000	**1 050 000**
Total Revenue	**138 938 310**	**218 041 481**	**162 981 334**	**151 918 019**	**532 940 833**

Table 22: Earth observation programme – expenditure estimates

EXPENDITURE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Employee Related Costs - CTC	33 106 876	29 804 949	31 161 074	32 569 555	**93 535 579**
Incentive Bonus Provision	2 453 029	2 483 746	2 596 756	2 714 130	**7 794 632**
Repairs and Maintenance	1 571 109	1 643 537	1 718 318	1 795 986	**5 157 842**
Data Licence fees	15 550 615	30 006 875	25 000 000	27 500 000	**82 506 875**
Grants and Subsidies Paid	6 893 849	29 476 867	-	-	**29 476 867**
Training Expenses	1 048 000	1 096 313	1 146 195	1 198 003	**3 440 511**
General Expenses	17 735 258	18 552 854	19 397 009	20 273 754	**58 223 616**
Cost recovery expense	51 579 573	62 802 389	76 961 981	60 636 591	**200 400 962**
Total Operating Expenditure	**129 938 311**	**175 867 530**	**157 981 334**	**146 688 019**	**480 536 882**
Surplus / (Deficit) for the year	**8 999 999**	**42 173 951**	**5 000 000**	**5 230 000**	**52 403 951**
Capital Expenditure	**9 000 000**	**42 173 951**	**5 000 000**	**5 230 000**	**52 403 951**
Computer Equipment	-	18 173 951	5 000 000	5 230 000	**28 403 951**
Software and intangible assets	9 000 000	24 000 000	-	-	**24 000 000**
Total Expenditure	**138 938 311**	**218 041 481**	**162 981 334**	**151 918 019**	**535 940 833**

The annual average budget for the EO Programme is R177.6 million over the MTEF period, which is funded from the Parliamentary grant, SIH grant funding, exchange revenue and interest income. The average employee costs are R33.7 million over the MTEF period, which includes an average annual inflationary increase of 5.7%.

Other operating expenses average R126.4 million per year and include costs related to research, development, science advancement, data processing and dissemination and SIH project costs. These costs are adjusted for annual inflation averaging 4.6% over the MTEF period but limited to available funding. Capital expenditure is expected to average R17.4 million comprising computer equipment and Software relating to SIH.



1.3. Programme 3: Space Science

1.3.1. Programme Purpose

The Space Science (SS) Programme leads multidisciplinary space science research and development.

Key functions include:

- The provision of fundamental and applied research, product improvement and expansion for space weather and other geospace and magnetic technology products and services on a commercial and private basis.
- The programme also provides leadership in postgraduate science and engineering student training, as well as science engagement through both learner and educator science support.

In contributing towards the SANSA impact of *"inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology"*, the SS Programme directly supports delivery of the following 2025-2030 Strategic Plan outcomes:

Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure.

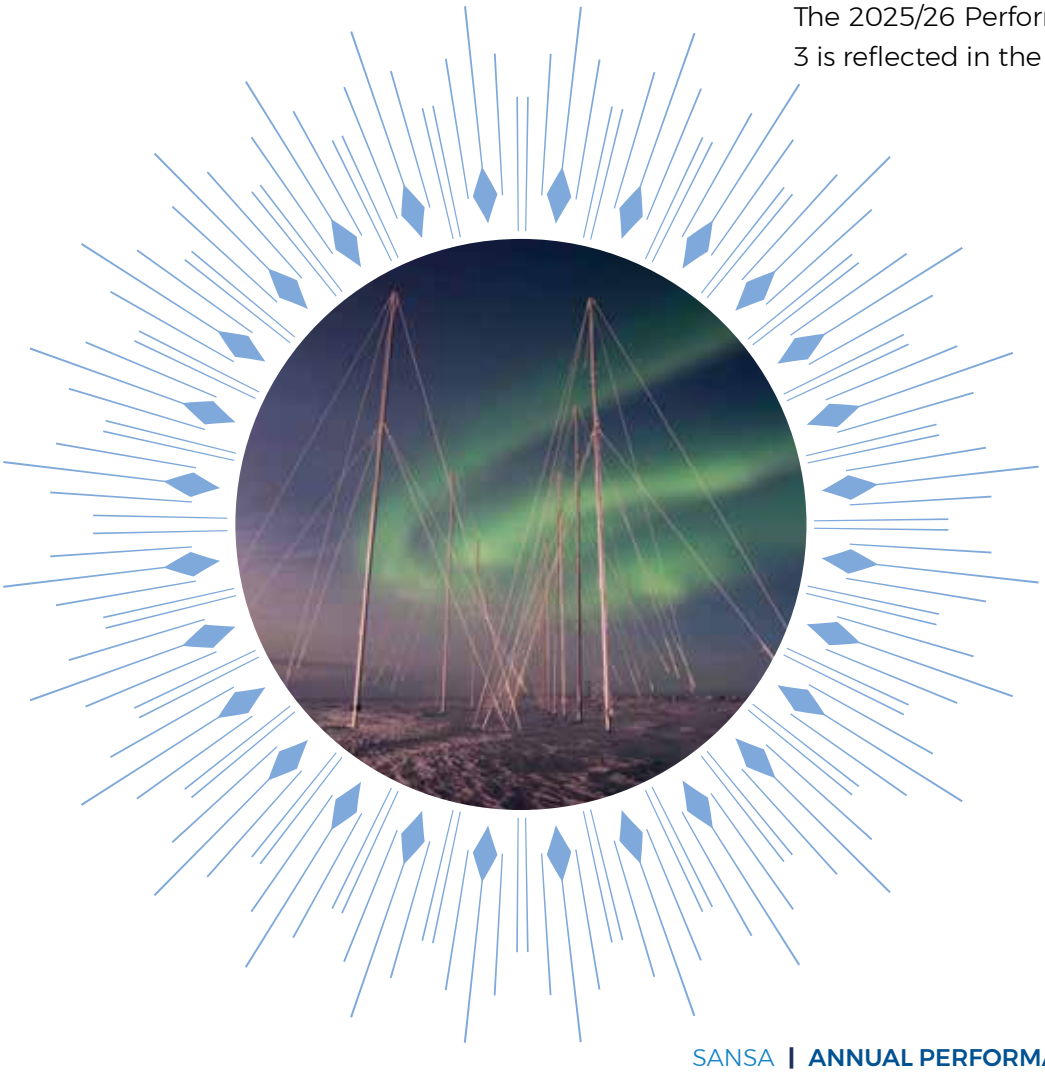
Outcome 2: Increased space relevant knowledge and decision- support tools that support the developmental agenda.

Outcome 3: Increased share of the global space market economy.

Outcome 5: Increased human capacity in space science, technology and engineering.

Outcome 6: A capable, sustainable, and high-performing national Space Agency.

The 2025/26 Performance Plan of Programme 3 is reflected in the logframe tables below.



1.3.2. Programme 3: Outcomes, Outputs, Output Indicators, and Targets

Table 23: Space science programme – outcomes, outputs, output indicators and annual targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1 Enhanced national capability in space science, technology, and satellite infrastructure	1.3. Sustainable space weather capability (SWx)	1.3.1. Break-even revenue to total SWx Cost	-	-	-	New indicator	22%	35%	59%
	1.4. Public awareness initiatives implemented	1.4.1. Number of public awareness initiatives implemented	-	-	-	New indicator	30	35	40
Outcome 2 Increased space relevant knowledge and decision-support tools that support the developmental agenda	2.1. Productive output of supported research and development (R&D) in space-related sciences	2.1.1. National research productivity score for supported R&D (Space Science)	1 287.63	1 172.04	1 226.26	1 100	1 100	1 100	1 100
Outcome 3 Increased share of the global space market economy	3.1. Revenue generated from space operations, applications and services	3.1.1. Rand value of revenue generated from space operations, applications and services (Space Science)	-	-	New indicator	R8.59 million	R 14.5 million	R 15.2 million	R18 million
	3.4. Commercial agreements signed	3.4.1. Number of commercial agreements signed	-	-	-	New indicator	9	12	15
Outcome 5 Increased human capacity in space science, technology and engineering	5.1. Youth awareness of space-related sciences	5.1.1. Number of youth directly engaged on space-related sciences	8 064	11 672	15 350	7 500	10 000	10 500	11 000

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	5.2. Students and interns supported	5.2.1. Number of students and interns supported for formalised training	26	29	90	72	72	72	72
Outcome 6: A capable, sustainable, and high-performing national Space Agency	6.3. ISO standards implemented	6.3.1. ISO accreditation achieved (Space Science)	-	-	-	New indicator	Accredited: ISO 9001	Accredited: ISO 9001 ISO 17025	Accredited: ISO 9001 ISO 17025

1.3.3. Programme 3: Output Indicators: Annual and Quarterly Targets

Table 24: Space science programme – output indicators, annual and quarterly targets

OUTPUT INDICATORS	2025/26 ANNUAL TARGET	QUARTERLY TARGETS			
		Q1 Apr - Jun 2025	Q2 Jul - Sep 2025	Q3 Oct - Dec 2025	Q4 Jan - Mar 2026
1.3.1. Break-even revenue to total SWx Cost	22%	-	-	-	22%
1.4.1. Number of public awareness initiatives implemented	30	5	8	10	7
2.1.1. National research productivity score for supported R&D (Space Science)	1 100	250	250	250	350
3.1.1. Rand value of revenue generated from space operations, applications and services (Space Science)	R 14.5 million	R3.625 million	R3.625 million	R3.625 million	R3.625 million
3.4.1. Number of commercial agreements signed	9	2	2	2	3
5.1.1. Number of youth directly engaged on space-related sciences	10 000	2 500	2 500	2 500	2 500
5.2.1. Number of students and interns supported for formalised training	72	-	-	-	72
6.3.1. ISO accreditation achieved (Space Science)	Accredited: ISO 9001	-	-	-	Accredited: ISO 9001

1.3.4. Programme 3: Explanation of Planned Performance over the Medium-Term Period

The SS Programme will maintain its emphasis on offering a research, development, and service platform; conducting collaborative, multidisciplinary cutting-edge research; delivering technology and applied science services to government and industry users; and initiating, coordinating, and implementing human capacity development and science engagement programmes.

Additionally, the Programme will continue to prioritise engagements with both upstream and downstream sectors of the space Industry to identify and focus on the essential skills needed for its human capacity development initiatives.

The outputs of Programme 3 contribute to SANSA's strategic plan outcomes, as follows:

1) **Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure:**

The SS Programme contributes to the national space capability through two main baskets of products and services: i) **Magnetic Technology Services:** SANSA operates a specialised magnetically clean facility equipped with a large three-axis Helmholtz coil system and a non-magnetic temperature chamber. This facility offers vital services to both space and non-space sectors, including electric and magnetic navigation ground support, magnetic field modelling, landing compass calibrations, and magnetic sensor sourcing and integration; and ii) **Space Weather Capability**

(SWx): SANSA runs the Space Weather Regional Warning Centre for Africa, part of the International Space Environment Service, which plays a crucial role in monitoring solar activity. The SWx offers essential information, early warnings, and forecasts about space weather conditions, primarily benefitting communication and navigation systems across the defence, aeronautics, aviation, and communication sectors.

Recognising that space weather has global implications with regional effects, SANSA is dedicated to developing expertise in areas impacting South Africa, empowering decision-makers to implement effective mitigation strategies. Key technologies vulnerable to space weather include satellite systems, electric power networks, satellite-based navigation, satellite-based communication, HF-based communication, aviation, and other critical sectors. Space weather can have severe consequences on systems used in agriculture, mining, transport, and mobile communications. SANSA will collaborate with these sectors to quantify the impacts and raise awareness about leveraging space weather information to protect vulnerable technology systems.

In 2025/26 the SWx sustainability and growth plan will be implemented to ensure an increased return on investment (target, 22% breakeven) whilst promoting long-term sustainability of the capability.

The agency further aims to enhance public awareness and training support for learners and educators in space science and technology. Additionally, it seeks to boost SANSA's outreach amongst youth to promote a developmental pipeline while aligning science engagement activities with the DDM, through initiatives such as public tours, lectures, space talks, client days, and media campaigns.

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2) **Outcome 2: Increased space relevant knowledge and decision-support tools that support the developmental agenda**

The SS Programme aims to achieve a research productivity score of 1,100 in the 2025/26 financial year. This composite score reflects performance across key metrics, including publications, graduated students, research funding secured, and researcher ratings. The programme is dedicated to advancing both fundamental and applied research whilst providing cutting-edge development and service platforms. It will prioritise collaborative and multidisciplinary research initiatives and deliver technology and applied science services tailored to the needs of government and industry stakeholders, driving innovation and national capability in space science.

3) **Outcome 3: Increased share of the global space market economy**

In 2025/26, SANSA aims to leverage its space operations, applications and services to generate R14.5 million in revenue through the SS Programme and establish client networks for long-term sustainability. Revenue-generating offerings include the space weather services provided through the SWx, magnetic technology products, and space science value-added products. Revenue generating initiatives will be strengthened through the signing of at least nine commercial agreements in the financial year.

4) **Outcome 5: Increased human capacity in space science, technology and engineering**

SANSA's priority interventions aim to enhance science engagement by facilitating school visits to its facilities, conducting outreach in rural areas through the Space Lab, organising holiday programmes, seeking funding proposals, participating in science festivals, coordinating weeklong science activities, running career workshops, partnering with educational organisations, and establishing after-school science clubs. Accordingly, SS will raise the awareness of 10,000 youth, through direct engagement in the 2025/26 financial year.

SANSA assesses its impact on external HCD initiatives by tracking the total number of students and interns supported through opportunities such as bursaries, internships, job shadowing, in-service training, and supervision by SANSA researchers. A total of 72 students and interns are to be supported for formalised training during 2025/26.

5) **Outcome 6: A capable, sustainable, and high-performing national Space Agency**

The agency recognises the value of ISO accreditation in enhancing institutional credibility and improving quality management to bolster operational efficiency. SANSA will therefore strengthen its risk management and regulatory compliance measures to ensure continuous improvement in the implementation of ISO standards as it strives towards ISO 9001 accreditation in 2025/26.

PRIORITIES RELATING TO BLACK WOMEN, YOUTH, PERSONS WITH DISABILITIES AND BLACK-OWNED BUSINESSES

The SS Programme will continue to contribute towards ensuring support is provided to black women, youth, PWDs through bursaries, internships, job shadowing, and in-service training opportunities. Amongst other key initiatives, SANSA has seen drastic improvements in the number of women, especially black woman, supported through bursary programmes in recent years.

Over the MTEF, the Programme will contribute to the education, supervision and/or mentorship of more than 200 young students and interns. A target of 50% of this number has been set for women, and SANSA will leverage opportunities for women and the youth to gain skills and exposure to enhance their employment prospects.

SANSA will be tracking the SS percentage spend in the 2025/26 financial year to ensure

42% of contract expenditure is directed towards supporting SMEs in accordance with the inclusive economic growth focus of MTDP 2024-2029. Key priorities include the ongoing execution of the B-BBEE Strategy and Implementation Framework, aiming for 46.5% of procurement spending to be directed toward Black-owned businesses. Within this, the SS Programme will strive to allocate 40% to women-owned enterprises, 30% to youth-owned enterprises, and 3% to businesses owned by persons with disabilities (PWDs).

1.3.5. Programme 3: Resource Considerations

Table 25: Space science programme – revenue estimates

REVENUE	Original budget	Medium Term Expenditure Framework		Total MTEF
	2024/25	2025/26	2026/27	2027/28
Revenue from Non-Exchange Transactions	**66 574 498**	**65 086 845**	**49 023 347**	**47 336 420**	**161 446 613**
Operational Transfers	**37 055 741**	**38 872 095**	**32 431 833**	**33 941 596**	**105 245 525**
Parliamentary Grant	25 055 741	22 843 678	32 431 833	33 941 596	**89 217 108**
PG - SIH	12 000 000	16 028 417	-	-	**16 028 417**
Ring fenced Grants	**29 518 757**	**26 214 750**	**16 591 514**	**13 394 824**	**56 201 088**
Post graduate student bursary support - DST	6 500 000	6 500 000	6 500 000	6 500 000	**19 500 000**
Research Grants	6 018 757	2 714 750	6 591 514	6 894 824	**16 201 088**
Space Weather Centre	17 000 000	17 000 000	3 500 000	-	**20 500 000**
Revenue from Exchange Transactions	**19 801 414**	**23 148 920**	**28 655 754**	**33 657 859**	**85 472 533**
Rendering of Services	8 591 927	14 547 438	15 209 346	17 987 209	**47 743 993**
Contract Revenue - Public Sector	7 366 927	11 897 438	12 438 771	15 091 404	**39 427 613**
Contract Revenue - Private Sector	600 000	2 200 000	2 300 100	2 404 065	**6 904 165**
Contract Revenue - Foreign	625 000	450 000	470 475	491 740	**1 412 215**
Other Income	11 209 487	8 601 482	13 456 407	15 670 650	**37 728 540**
Interest Income	-	1 100 000	1 144 000	1 189 760	**3 433 760**
Sundry Income	-	550 000	575 000	600 000	**1 725 000**
Cost recovery income	11 209 487	6 951 482	11 737 407	13 880 890	**32 569 780**
Total Revenue	**86 375 913**	**88 235 766**	**77 689 101**	**80 994 280**	**246 919 146**

Table 26: Space Science Programme – Expenditure estimates

EXPENDITURE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Employee Related Costs - CTC	43 397 499	42 974 121	45 359 185	47 863 012	**136 196 317**
Incentive Bonus Provision	3 683 198	3 581 177	3 779 932	3 988 584	**11 349 693**
Repairs and Maintenance	4 483 500	5 040 000	5 269 320	5 507 493	**15 816 813**
Grants and Subsidies Paid	6 500 000	6 500 000	6 500 000	6 500 000	**19 500 000**
Training Expenses	456 100	470 000	491 385	513 596	**1 474 981**
General Expenses	12 976 486	13 380 468	13 989 279	14 621 595	**41 991 342**
Cost recovery expense	-	-	-	-	**-**
Total Operating Expenditure	**71 496 783**	**71 945 766**	**75 389 101**	**78 994 280**	**226 329 146**
Surplus / (Deficit) for the year	**14 879 130**	**16 290 000**	**2 300 000**	**2 000 000**	**20 590 000**
Capital Expenditure	**14 879 130**	**16 290 000**	**2 300 000**	**2 000 000**	**20 590 000**
Buildings and other fixed structures	1 500 000	4 000 000	-	-	**4 000 000**
Machinery and equipment	10 379 130	11 050 000	850 000	500 000	**12 400 000**
Computer Equipment	2 300 000	1 075 000	750 000	750 000	**2 575 000**
Software and intagible assets	700 000	-	-	250 000	**250 000**
Vehicles	-	-	700 000	-	**700 000**
Research Equipment	-	100 000	-	150 000	**250 000**
Laboratory Equipment	-	15 000	-	200 000	**215 000**
Office Equipment	-	50 000	-	-	**50 000**
Exibits	-	-	-	150 000	**150 000**
Total Expenditure	**86 375 913**	**88 235 766**	**77 689 101**	**80 994 280**	**246 919 146**

The annual average budget for the Space Science Programme is R82.3 million over the MTEF period, which is funded from the Parliamentary grant, SIH grant funding, contract revenue, interest revenue and ring-fenced grant income. Ring fence grants decreases in the outer year due to Space Weather Operational funding not yet secured

The average employee costs are R49.1 million over the MTEF period, which includes an average annual of inflationary increases of 5.6%.

Other operating expenses average R26.3 million per year and include research costs, product development, science engagement, human capital development, facility management, engineering support to research, applied science and project-related costs. These costs are adjusted for inflation averaging 4.6% over the MTEF period but limited to available funding. Capital expenditure averaging R6.8 million is included for the purchase of research equipment and the SIH project-related items.

1.4. Programme 4: Space Operations

1.4.1. Programme Purpose

The Space Operations (SO) Programme provides global ground segment support to local, regional and international satellite operators and manufacturers, also supporting SANSA Earth Observation programme for the acquisition of satellite data.

The HBK facility is uniquely positioned as the primary ground receiving station and Telemetry, Tracking and Control (TT&C) service provider on the African continent with the competitive advantage of having the necessary geographical footprint, full coverage of the entire frequency range and the operational and technical excellence to serve both local and international markets. It enables SANSA to offer comprehensive space operations, including launch support, in-orbit testing, and satellite mission control for both national and international clients, ensuring complete ground segment support throughout the project lifecycle.

With the new ground station at MTJ, South Africa will enhance its deep space capabilities and provide essential services for tracking CubeSats, creating opportunities for local manufacturers to advance their satellite programmes within the entire value chain.

In contributing towards the SANSA impact of *"inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology"*, the SO Programme directly supports delivery of the following 2025-2030 Strategic Plan outcomes:

Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure.

Outcome 3: Increased share of the global space market economy.

Outcome 5: Increased human capacity in space science, technology and engineering.

Outcome 6: A capable, sustainable, and high-performing national Space Agency.

The 2025/26 Performance Plan of Programme 4 is reflected in the logframe tables below.

1.4.2. Programme 4: Outcomes, Outputs, Output Indicators, and Targets

Table 27: Space operations programme – outcomes, outputs, output indicators and annual targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1: Enhanced national capability in space science, technology and satellite services	1.5. Space infrastructure developed or upgraded	1.5.1. Percentage achievement of MTJ project implementation milestones	Environmental Impact Assessment (EIA) and business case concluded for the development of deep space capabilities	Cost benefit and proposal to government and funders 20% of Matjiesfontein deep space facility project plan executed	25% of Matjiesfontein deep space facility project plan executed	70% of Matjiesfontein deep space facility project plan executed	90% achievement of MTJ project implementation milestones	100% achievement of MTJ project implementation milestones	-
Outcome 3 Increased share of the global space market economy	3.1. Total revenue generated from space operations, applications and services	3.1.1. Rand value of revenue generated from space operations, applications and services (Space Operations)	-	-	-	R204.5 million	R 121 million	R 148.6 million	R 174.5 million
	3.2. Missions supported	3.2.1. Number of missions supported	-	-	-	New indicator	22	25	30
		3.2.2. Number of exploration missions supported	-	-	-	New indicator	2	3	4
	3.3. New hosted facilities	3.3.1. Number of new hosted facilities	-	-	-	New indicator	3	4	5

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 5: Increased human capacity in space science, technology and engineering	5.2. Students and interns supported	5.2.2. Number of students and interns supported for technical training	-	-	-	New indicator	2	3	4
Outcome 6: A capable, sustainable, and high-performing national Space Agency	6.3. ISO standards implementation	6.3.1. ISO accreditation achieved (Space Operations)	-	-	-	New indicator	Accredited: ISO 9001	Accredited: ISO 9001 ISO 17025	Accredited: ISO 9001 ISO 17025

1.4.3. Programme 4: Output Indicators: Annual and Quarterly Targets

Table 28: Space operations – output indicators, annual and quarterly targets

OUTPUT INDICATORS	2025/26 ANNUAL TARGET	QUARTERLY TARGETS			
		Q1 Apr - Jun 2025	Q2 Jul - Sep 2025	Q3 Oct - Dec 2025	Q4 Jan - Mar 2026
1.5.1. Percentage achievement of MTJ project implementation milestones	90% achievement of MTJ project implementation milestones	-	-	-	90%
3.1.1. Rand value of revenue generated from space operations, applications and services (Space Operations)	R 121 million	-	-	-	R121 million
3.2.1. Number of missions supported	22	4	5	8	5
3.2.2. Number of exploration missions supported	2	-	-	-	2
3.3.1. Number of new hosted facilities	3	-	1	1	1
5.2.2. Number of students and interns supported for technical training	2	-	1	-	1
6.3.1. ISO accreditation achieved (Space Operations)	Accredited: ISO 9001	-	-	-	Accredited: ISO 9001

1.4.3. Programme 4: Explanation of Planned Performance over the Medium-Term Period

The SO Programme plays a critical role in the provision of products and applications aimed at addressing South Africa's economic, social, and environmental challenges.

The outputs of Programme 4 contribute to SANSA's strategic plan outcomes, as follows:

1) **Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure**

The SO Programme contributes to the national space capability through three main baskets of products and services: **(1) Earth observation data acquisition support** – A proportion of SANSA's space operations activities with respect to daily passes of Low Earth Orbit (LEO) satellites are devoted to the downloading of satellite imagery from commercial and public earth observation satellites, (ii) **Teleport hosting** – focuses on developing infrastructure to enable the hosting of teleport-like services, which supports SANSA's sustainability and provides a redundant fibre link to a central hub in South Africa, and (iii) **Satellite support** – SO provides satellite support to various clients on a commercial basis, generating a significant income stream. The satellite support includes Telemetry, Tracking and Command of satellite platforms, hosted infrastructure services and satellite launch support.

Since 2014, SANSA and NASA have explored establishing a deep space complex in South Africa, identifying MTJ as a suitable site for a ground station supporting lunar missions and deep space exploration. The installation of this ground station will enhance South Africa's capabilities in international space exploration whilst also prioritising social upliftment initiatives within the MTJ development over the 2025/26 financial year and MTEF. 90% completion of the project is planned for 2025/26.

SO will further lead and facilitate the creation of new products and applications for increased share of the space products and applications market consisting of services relating to all programmes in SANSA. These will be products developed and generated from SO Earth observation, space sciences and any other services rendered effectively generating, additional external revenue, supporting the sustainability of SANSA. The products and applications offered for distribution are market-ready, forming the basis for SANSA's participation as a service provider in the space market for an identified client base.

2) **Outcome 3: Increased share of the global space market economy**

SO plans to expand revenue by R121 million and attract local and international stakeholders through locally hosted infrastructure, thereby enhancing SANSA's relevance in the global space community. Additionally, the agency aims to ensure high-quality services aligned with international standards and optimise returns on investment in hosted infrastructure to support growth, sustainability, and retention of high-end skills. The space applications, products and service offerings for revenue generation in 2025/26 include hosted infrastructure services to foreign and local clients, telemetry, tracking, and command of satellite platforms, and mission launch support.

Over the MTEF period, focus will also be on operationalising the deep space network capability in MTJ to improve prospects for the generation of additional external revenue thus supporting the sustainability of SANSA. This will be done whilst continually enhancing satellite operations and expanding market opportunities for revenue growth. Additionally, SO will focus on promoting MTJ as a tourist destination and strengthening international cooperation by contributing to global space standards, sharing expertise with developing nations, and leading in space governance.

A total of 22 missions will be supported by the SO Programme during the financial year with three new hosted facilities envisaged for the same period.

3) **Outcome 5: Increased human capacity in space science, technology and engineering**

A total of two students and interns are to be supported for technical training through the SO Programme during the 2025/26 financial year. Focus will therefore be on the provision of internships for vocationally trained individuals to support the technical support team in performing planned and reactive maintenance on SANSA SO technical infrastructure.

4) **Outcome 6: A capable, sustainable, and high-performing national Space Agency**

SANSA will enhance its risk management and regulatory compliance practices to ensure ongoing improvements in the implementation of ISO standards as it works towards achieving ISO 9001 accreditation.

PRIORITIES RELATING TO WOMEN, YOUTH, PEOPLE WITH DISABILITIES AND BLACK-OWNED BUSINESS

In alignment with the transformational agenda of SANSA and government at large, the programme will continue with its efforts towards ensuring women, youth, PWDs and black-owned businesses benefit from planned interventions through partnerships and procurement relating to the provision of space-related products and applications.

SANSA will be tracking the SO percentage spend in the 2025/26 financial year to ensure 42% of contract expenditure is directed towards supporting SMEs in accordance with the inclusive economic growth focus of MTDP 2024-2029. Key priorities include the ongoing execution of the B-BBEE Strategy and Implementation Framework, aiming for 46.5% of procurement spending to be directed toward black-owned businesses. Within this, the SO Programme will strive to allocate 40% to women-owned enterprises, 30% to youth-owned enterprises, and 3% to businesses owned by persons with disabilities (PWDs).

1.4.4. Programme 4: Resource Considerations

Table 29: Space Operations Programme – Revenue estimates

REVENUE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Revenue from Non-Exchange Transactions	**128 256 869**	**164 044 590**	**209 661 318**	**23 720 510**	**397 426 418**
Operational Transfers	**128 256 869**	**91 044 234**	**159 661 318**	**23 720 510**	**274 426 062**
Parliamentary Grant	28 256 869	31 044 234	22 661 318	23 720 510	**77 426 062**
PG - SIH	100 000 000	60 000 000	137 000 000	-	**197 000 000**
Ring fenced Grants	**-**	**73 000 356**	**50 000 000**	**-**	**123 000 356**
Deep Space Network	-	73 000 356	50 000 000	-	**123 000 356**
Revenue from Exchange Transactions	**76 231 044**	**121 403 921**	**148 595 092**	**174 475 891**	**44 474 904**
Rendering of Services	76 231 044	121 403 921	148 595 092	174 475 891	**444 474 904**
Contract Revenue - Public Sector	6 769 313	8 765 599	17 913 494	18 723 184	**45 402 277**
Contract Revenue - Private Sector	4 522 472	5 091 863	5 323 542	5 564 166	**15 979 571**
Contract Revenue - Foreign	64 939 259	107 546 459	125 358 055	150 188 541	**383 093 055**
Total Revenue	**204 487 913**	**285 448 511**	**358 256 409**	**198 196 401**	**841 901 322**

Table 30: Space Operations Programme – Expenditure estimates

EXPENDITURE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Employee Related Costs - CTC	39 674 867	45 565 654	48 095 121	50 753 229	**144 414 004**
Incentive Bonus Provision	2 580 963	3 186 524	3 363 377	3 549 035	**10 098 936**
Repairs and Maintenance	8 799 633	9 213 215	10 225 533	11 109 907	**30 548 655**
Antenna Infrastructure Services	2 000 000	13 354 034	15 461 643	12 067 646	**40 883 322**
General Expenses	44 598 567	42 070 831	47 061 355	49 378 419	**138 510 605**
Cost recovery expense	41 922 293	39 057 897	47 049 381	71 338 165	**157 445 443**
Total Operating Expenditure	**139 576 322**	**152 448 155**	**171 256 409**	**198 196 401**	**521 900 966**
Surplus / (Deficit) for the year	**64 911 591**	**133 000 356**	**187 000 000**	**-**	**320 000 356**
Capital Expenditure	**64 911 591**	**133 000 356**	**187 000 000**	**-**	**320 000 356**
Buildings and other fixed structures	42 275 000	83 000 356	163 000 000	-	**246 000 356**
Machinery and equipment	22 636 591	50 000 000	23 000 000	-	**73 000 000**
Vehicles	-	-	1 000 000	-	**1 000 000**
Total Expenditure	**204 487 913**	**285 448 511**	**358 256 409**	**198 196 401**	**841 901 322**

The annual average budget for the SO Programme is R280.6 million over the MTEF period, which is funded from the parliamentary grant, SIH grant funding, ring-fenced grant income and exchange revenue derived from the sale of products and services.

The average employee costs are R51.5 million over the MTEF period, which includes an average annual inflationary salary increases of 5.7%. Other operating expenses average R70 million per year and include operational and technical costs, facility management, data costs and cost recovery charges from other programmes averaging R52.4 million per annum. These costs are adjusted for annual inflation averaging 4.6% over the MTEF period but limited to available funding.

Capital expenditure averaging R106.6 million includes the Matjiesfontein Deep Space Network and the purchase of machinery and computer equipment, limited to available income.

1.5. Programme 5: Space Engineering

1.5.1. Programme Purpose

The Space Engineering (SE) Programme leads systems engineering and programme/project management excellence and drives the satellite development programme in South Africa in partnership with external contractors, R&D institutions, and private sector partners. The Programme conducts satellite and subsystems analysis, leads the technical side of the Space Programme project management, human capital development in space engineering, as well as facilitates private space industry and staholder partnerships.

Key functions of the Programme include:

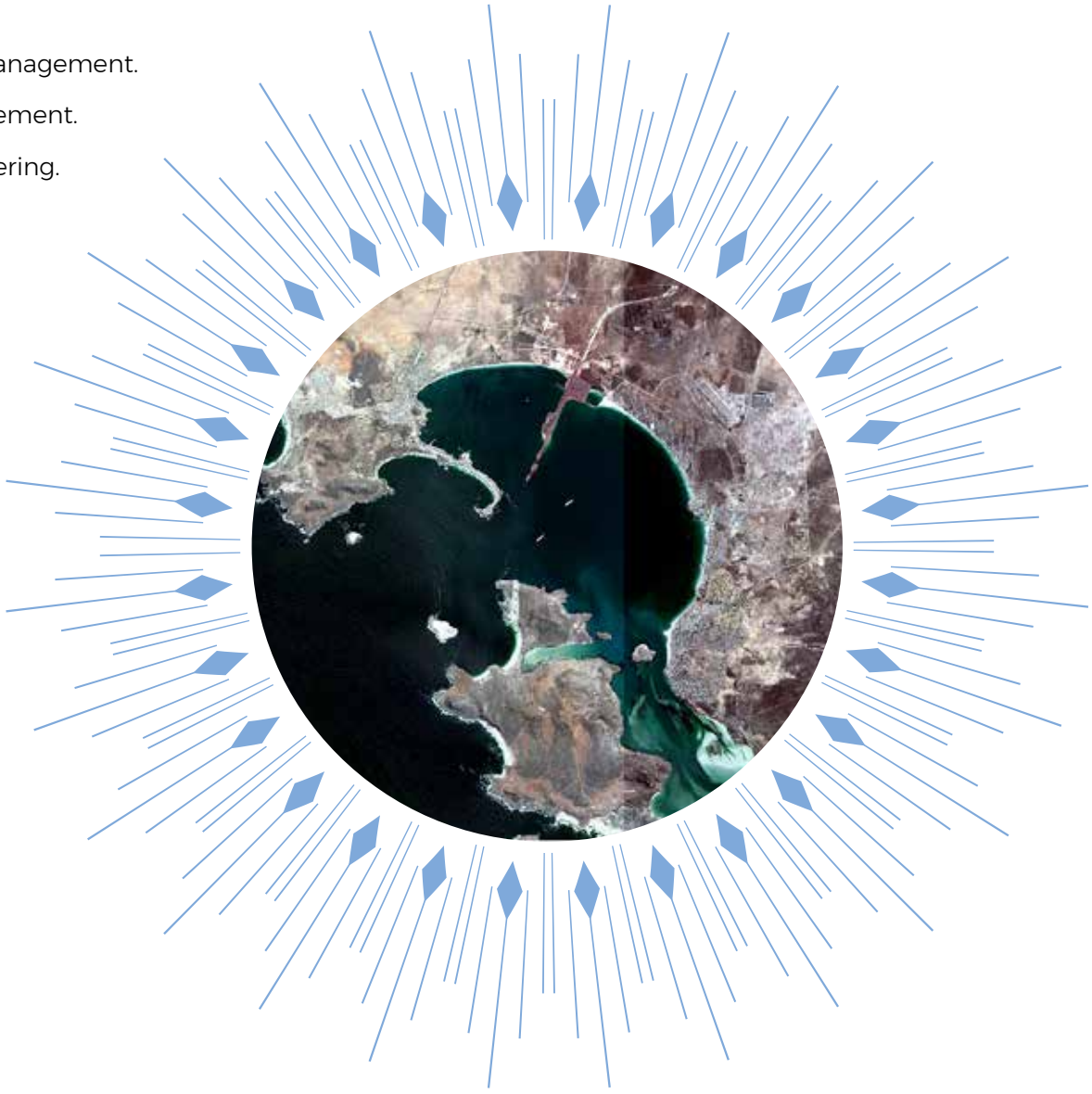
1. Portfolio management: (i) Strategic alignment, and (ii) Budget / resource prioritisation.
2. Programme management.
3. Project management.
4. System engineering.

In contributing towards the SANSA impact of *"inclusive economic growth and industrialisation, job creation, and a capable state through advancements in space science, engineering and technology"*, the SE Programme directly supports delivery of the following 2025-2030 Strategic Plan outcomes:

Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure.

Outcome 6: A capable, sustainable, and high-performing national Space Agency.

The 2025/26 Performance Plan of Programme 5 is reflected in the logframe tables below.



1.5.2. Programme 5: Outcomes, Outputs, Output Indicators, and Targets

Table 31: Space engineering programme – outcomes, outputs, output indicators and annual targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1: Enhanced national capability in space science, technology and satellite services	1.5. Space infrastructure developed or upgraded	1.5.2. Percentage achievement of EO-SAT 1 project implementation milestones	New Indicator	Contracting, acquisition of the SIH Phase I mission system not concluded by year-end	7% of SIH Phase 1 project plan executed	50% of EO-SAT 1 project completed	50% achievement of EO-SAT 1 project implementation milestones	100% achievement of EO-SAT 1 project implementation milestones	-
		1.4.3. Percentage achievement of AIT facility upgrade project implementation milestones	Revised project schedule and implementation plan	0%	0% of upgraded AIT facility project plan executed	50% of upgraded AIT facility project plan executed	60% achievement of AIT facility upgrade project implementation milestones	100% achievement of AIT facility upgrade project implementation milestones	-
Outcome 6: A capable, sustainable, and high-performing national Space Agency	6.3. ISO standards implementation	6.3.2. Development and implementation of ISO standards implementation plan (Space Engineering)	-	-	-	New indicator	ISO standards implementation plan developed	50% of ISO standards Implementation plan achieved	100% of ISO standards Implementation plan achieved

1.5.3. Programme 5: Output Indicators: Annual and Quarterly Targets

Table 32: Space engineering programme – output indicators, annual and quarterly targets

OUTPUT INDICATORS	2025/26 ANNUAL TARGET	QUARTERLY TARGETS			
		Q1 Apr - Jun 2025	Q2 Jul - Sep 2025	Q3 Oct - Dec 2025	Q4 Jan - Mar 2026
1.5.2. Percentage achievement of EO-SAT 1 project implementation milestones	50% achievement of EO-SAT 1 project implementation milestones	-	-	-	50%
1.4.3. Percentage achievement of AIT facility upgrade project implementation milestones	60% achievement of AIT facility upgrade project implementation milestones	-	-	-	60%
6.3.2. Development and implementation of ISO standards implementation plan	ISO standards implementation plan developed	-	-	-	ISO standards implementation plan developed

1.5.4. Programme 5: Explanation of Planned Performance over the Medium-Term Period

The SE Programme continues to lead systems engineering and project management excellence and drives a small satellite development programme in South Africa in partnership with external contractors, R&D institutions, and private sector partners. The Programme is mainly charged with the responsibility to centrally project manage, execute, facilitate, guide, and assist all strategically aligned programmes and projects within the agency according to an appropriate SANSA standardised set of processes, workflows, and tools, utilising resources available internally across SANSA or external domain expert contractors.

The outputs of Programme 5 contribute to SANSA's strategic plan outcomes, as follows:

1) **Outcome 1: Enhanced national capability in space science, technology and satellite infrastructure**

The SE Programme enhances national space capability by investing in the development and upgrade of facilities to support space missions and stimulate the local space economy. In collaboration with industry and academic partners, the programme manages and maintains these facilities whilst advancing national research and development initiatives.

EO-SAT1 Programme: The EO-SAT1 Programme, South Africa's first government-owned commercial Earth Observation mission, will be 50% complete by the end of 2025/26 and fully operational by 2026/27. As South Africa's contribution to the African Resource and Environmental Management Satellite Constellation (ARMC), it aims to:

- Advance scientific excellence in Africa, aligned with the socio-economic goals of AU 2063.
- Promote the peaceful use of space, human capital development, and infrastructure growth.
- Enable industrial development in space technologies, promoting a transformed satellite-building industry in South Africa.

The project provides SANSA and the local industry a platform to build satellite capacity through the EO-SAT1 HCD Programme, contributing to a globally competitive and sustainable space sector.

Houwteq / AIT Facility Upgrade: 60% of the upgrades are planned for completion by end 2025/26. The facility will offer assembly, integration, testing, calibration, and validation services to the space, automotive, and defence industries. This will strengthen SANSA's stakeholder relationships and incentivise industrial growth. Innovation and incubation spaces will support SMEs, with the operationalisation of Houwteq promoting industry-wide and international collaboration, driving innovation, and realising economic benefits.

Technology Stations: With government support, these stations will provide specialised equipment access for the space sector. Engineering and technical students will gain hands-on experience through SANSA mentorship, fulfilling postgraduate qualification requirements.

2) **Outcome 4: A vibrant, competitive and transformed South African space industry**

The SE Programme will take the lead in developing and implementing an intellectual property (IP) commercialisation plan for SANSA and the broader industry. In 2025/26, the programme will focus on crafting a clearly defined commercialisation strategy and plan, with subsequent years dedicated to recognising and/or filing IP to maximise its value. This initiative aligns with SANSA's strategic intent to drive industry growth, enhance innovation, and support organisational sustainability over the 2025–2030 Strategic Plan period.

3) **Outcome 6: A capable, sustainable, and high-performing national Space Agency**

The SE Programme will focus on ensuring the development of an ISO standard Implementation Plan in the 2025/26 financial year and enhance its risk management and regulatory compliance practices to ensure ongoing improvements as it works towards achieving ISO 9001 accreditation within the next five years.

PRIORITIES RELATING TO WOMEN, YOUTH, AND PEOPLE WITH DISABILITIES

In alignment with the transformational agenda of SANSA and government at large, the programme will continue with its efforts towards ensuring youth, women, and PWDs benefit from planned interventions relating to infrastructure development and contract expenditure.

SANSA will be tracking the SE percentage spend in the 2w025/26 financial year to ensure 42% of contract expenditure is directed towards supporting SMEs in accordance with the inclusive economic growth focus of MTDP 2024-2029. Key priorities include the ongoing execution of the B-BBEE Strategy and Implementation Framework, aiming for 46.5% of procurement spending to be directed toward Black-owned businesses. Within this, the SE Programme will strive to allocate 40% to women-owned enterprises, 30% to youth-owned enterprises, and 3% to businesses owned by persons with disabilities (PWDs).

1.5.5. Programme 5: Resource Considerations

Table 33: Space engineering programme – revenue estimates

REVENUE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Revenue from Non-Exchange Transactions	**303 560 174**	**268 876 404**	**156 130 699**	**13 646 308**	**438 653 411**
Operational Transfers	**303 560 174**	**268 876 404**	**98 039 304**	**13 646 308**	**380 562 016**
Parliamentary Grant	11 560 174	11 918 976	13 039 304	13 646 308	**38 604 588**
PG - SIH	292 000 000	256 957 428	85 000 000	-	**341 957 428**
Ring fenced Grants	**-**	**-**	**58 091 395**	**-**	**58 901 395**
AIT Facilities	-	-	17 500 000	-	**17 500 000**
Satellite Development Programme	-	-	40 591 395	-	**40 591 395**
Revenue from Exchange Transactions	**7 869 088**	**7 312 870**	**13 122 209**	**13 505 700**	**33 940 779**
Other Income	7 869 088	7 312 870	13 122 209	13 505 700	**33 940 779**
Cost recovery income	7 869 008	7 312 870	13 122 209	13 505 700	**33 940 779**
Total Revenue	**311 429 182**	**276 189 274**	**169 252 907**	**27 152 007**	**472 594 189**

Table 34: Space engineering programme – expenditure estimates

EXPENDITURE	Original budget	Medium Term Expenditure Framework			Total MTEF
	2024/25	2025/26	2026/27	2027/28	
Employee Related Costs - CTC	16 360 059	17 277 858	18 236 779	19 243 450	**54 758 087**
Incentive Bonus Provision	1 363 338	1 439 822	1 519 732	1 603 621	**4 563 174**
Grants and Subsidies Paid	62 000 000	53 300 000	17 500 000	-	**70 800 000**
General Expenses	1 705 785	1 784 421	1 865 613	1 556 736	**5 206 770**
Total Operating Expenditure	**81 429 182**	**73 802 101**	**39 122 124**	**22 403 807**	**135 328 032**
Surplus / (Deficit) for the year	**230 000 000**	**202 387 173**	**130 130 784**	**4 748 201**	**337 266 158**
Capital Expenditure	**230 000 000**	**202 387 173**	**130 130 784**	**4 748 201**	**337 266 158**
Computer Equipment	-	-	4 539 389	4 748 201	**9 287 590**
Satellite Development	230 000 000	202 387 173	125 591 395	-	**327 978 568**
Total Expenditure	**311 429 182**	**276 189 274**	**169 252 907**	**27 152 007**	**472 594 189**

The annual average budget for the Space Engineering Programme is R 157.5 million over the MTEF period, which is funded from the Parliamentary Grant, SIH grant funding and ring-fenced grant income.

The average employee costs are R19.7 million over the MTEF period, which includes an average annual inflationary increase of 5.7%. Other operating expenses average R25.3 million over the MTEF period and include ring-fenced grant expenditure for the AIT upgrade, travel, and other general expenditure. These costs are adjusted for annual inflation averaging 4.6% over the MTEF period but limited to available funding.

Capital expenditure averaging R112.4 million is estimated for the satellite development.

2. CONSOLIDATED OUTCOMES, OUTPUTS, OUTPUT INDICATORS, AND ANNUAL TARGETS

Table 35: 2025/26 Consolidated Outcomes, Outputs, Output Indicators and Annual Targets

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 1: Enhanced national capability in space science, technology and satellite services	1.1. Joint space programme initiatives undertaken through partnerships	1.1.1. Number of established partnerships actively contributing to the national space capability	-	-	-	New indicator	12	18	24
	1.2. Accessible South African Earth Observation Systems (SAEOS) data	1.2.1. Functional SAEOS portal established	-	-	-	New indicator	Functional SAEOSS portal established by end Q2 2025/26	-	-
	1.3. Sustainable space weather capability (SWx)	1.3.1. Break-even revenue to total SWx Cost	-	-	-	New indicator	22%	35%	59%
	1.4. SANSA public awareness initiatives implemented	1.2.1 Number of public awareness initiatives implemented	-	-	-	New indicator	30	35	40

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	1.5. Space infrastructure developed or upgraded	1.5.1. Percentage achievement of MTJ project implementation milestones	Environmental Impact Assessment (EIA) and business case concluded for the development of deep space capabilities	Cost benefit and proposal to government and funders 20% of Matjiesfontein deep space facility project plan executed	25% of Matjiesfontein deep space facility project plan executed	70% of Matjiesfontein deep space facility project plan executed	90% achievement of MTJ project implementation milestones	100% achievement of MTJ project implementation milestones	-
		1.5.2. Percentage achievement of EO-SAT 1 project implementation milestones	New Indicator	Contracting, acquisition of the SIH Phase I mission system not concluded by year-end	7% of SIH Phase 1 project plan executed	50% of EO-SAT 1 project completed	50% achievement of EO-SAT 1 project implementation milestones	100% achievement of EO-SAT 1 project implementation milestones	-
		1.4.3. Percentage achievement of AIT facility upgrade project implementation milestones	Revised project schedule and implementation plan	0%	0% of upgraded AIT facility project plan executed	50% of upgraded AIT facility project plan executed	60% achievement of AIT facility upgrade project implementation milestones	100% achievement of AIT facility upgrade project implementation milestones	-

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Outcome 2 Increased space relevant knowledge and decision-support tools that support the developmental agenda	2.1. Productive output of supported research and development (R&D) in space-related sciences	2.1.1. National research productivity score for supported R&D (EO and SS)	1 805.27	1 660.74	1616.5	1 250	1 500	1 600	1 700
	2.2. Decision-support tools deployed in key thematic areas	2.2.1. Number of decision-support tools developed in key thematic areas	-	-	-	New indicator	3	3	2
Outcome 3: Increased share of the global space market economy	3.1. Revenue generated from space operations, applications and services	3.1.1. Rand value of revenue generated from space operations, applications and services (EO, SS, and SO)	R82.3 million	R105.2 million	R149.2 million	R 343.09 million	R186 million	R304 million	R321 million
	3.2. Missions supported	3.2.1. Number of missions supported	-	-	-	New indicator	22	25	30
		3.2.2. Number of exploration missions supported	-	-	-	New indicator	2	3	4
	3.3. New hosted facilities	3.3.1. Number of new hosted facilities	-	-	-	New indicator	3	4	5

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
	3.4. Signed commercial agreements for Space Science	3.4.1 Number of commercial agreements signed	-	-	-	New indicator	9	12	15
Outcome 4 A vibrant, competitive and transformed South African space industry	4.1. Targeted expenditure	4.1.1. Percentage contract operational expenditure spend on SMEs	20%	43%	45%	40%	42%	45%	50%
		4.1.2. Percentage total expenditure spend on Black-owned businesses	-	-	New Indicator	45%	46.5%	48.5%	50%
Outcome 5: Increased human capacity in space science, technology and engineering	5.1. Youth awareness of space-related sciences	5.1.1. Number of youth directly engaged on space-related sciences (EO and SS)	30 288	54 379	73 426	48 500	60 000	64 500	67 000
	5.2. Students and interns supported	5.2.1. Number of students and interns supported for formalised training (SS)	86	73	90	72	72	72	72

OUTCOME	OUTPUTS	OUTPUT INDICATORS	AUDITED PERFORMANCE			ESTIMATED PERFORMANCE	MTEF TARGETS		
			2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
		5.2.2. Number of students and interns supported for technical training (SO)	-	-	-	New indicator	2	3	4
Outcome 6: A capable, sustainable, and high-performing national Space Agency	6.1. High-performance initiatives implemented	6.1.1. Number of initiatives to transform SANSA into a high-performing agency	Skills Audit and Workplace place not concluded	2	3	3	2	2	2
	6.2. Major brand awareness initiatives implemented	6.2.1. Number of major brand awareness initiatives implemented	-	-	-	New indicator	12	12	12
	6.3. ISO standards implementation	6.3.1. ISO accreditation achieved (SS)	-	-	-	New indicator	Accredited: ISO 9001	Accredited: ISO 9001 ISO 17025	Accredited: ISO 9001 ISO 17025
		6.3.1. ISO accreditation achieved (SO)	-	-	-	New indicator	Accredited: ISO 9001	Accredited: ISO 9001 ISO 17025	Accredited: ISO 9001 ISO 17025
		6.3.2. Development and implementation of ISO standards implementation plan (SE)	-	-	-	New indicator	ISO standards implementation plan developed	50% of ISO standards Implementation plan achieved	100% of ISO standards Implementation plan achieved

3. UPDATED KEY RISKS

Table 36: Updated risks and mitigation actions

Outcome	Key Risks	Risk Mitigations
O1. Enhanced national capability in space science, technology and satellite infrastructure	· Lack of indigenous technological capability weakening national security interest and data sovereignty	· Develop indigenous capability in space technologies · Foster partnerships with multiple local partners, BRICS, etc. to diversify access to technologies and infrastructure: Partnership selection, management, and protection of intellectual property · Control over domestic capabilities, sensitive technology, and national influence · Business development: Market analysis and diversification strategies
O2. Increased space relevant knowledge and decision-support tools that support the developmental agenda	· Compromised sustainability and effectiveness of Earth Observation (EO) solutions and knowledge generation	· Investment in critical infrastructure · Advanced / robust decision-support tools: Invest in Data analytics, user-friendly platforms, sector-specific tools, etc. · Business development: demonstration of value of EO insights to attract customers · Responding to the Thematic user requirement with the high value products and services
O3. Increased share of the global space market economy	· Inability by South Africa to establish global recognition and influence in space initiatives (space knowledge and governance)	· Future-proof education: talent development and education · Leverage International (Local) Cooperations: Meaningful participation in global space forums) · Regional space collaboration · Space weather monitoring capabilities: Invest in related infrastructure · Develop a comprehensive Space Debris and Satellite Deorbiting Strategy · Inspiring youth and women/ development of STEMI
	· Limited competitiveness in attracting global space missions and contracts	· Strategic alliances with global Space Agencies, including private space companies · Cooperating with emerging space markets (Region/ Africa) · Diversify ground station offering; mission control, space exploration, etc. · Streamlining of supply chain process to allow for shortened times to acquire critical spares and fast execution of establishment projects. · Indefinite approval of retention of surplus that will allow for a buffer of funds (from profit) to support reactive and planned maintenance and upgrade activity to retain competitiveness. · Business Development: Recruitment across programmes

Outcome	Key Risks	Risk Mitigations
O4. A vibrant, competitive and transformed South African space industry	· Limited industry new entrants in the Space industry that represent the transformation objectives and demographics of South Africa.	· Government and industry collaboration: Space-related procurement on SMMEs/ (procurement goals) · Innovation hubs and incubators · Space education, and STEMI education outreach · Future-proof education · Transformation matrics and feedback mechanism
O5. Increased human capacity in space science, technology and engineering	· Inadequate development of talent pipeline and insufficient integration of Space education	· Marketing of Space education through marketing Agencies · Establish industry-academic partnerships · (Space academy) Curriculum development; teacher training programmes · National awareness campaigns · Promotion of Space careers and industry integration · Review of academia to assert the appropriateness of training programmes
O6. A capable, sustainable, and high-performing national Space Agency	· Not fit for purpose organisational design, and limited leadership capacity below EXCO level that can drive a culture of high performance of the Agency	· Organisational design and structure/ ideal operating model · Quarterly culture initiatives: Inclusion of values in performance contracting, etc. · Employee engagement surveys and action plans · Leadership development programmes · Develop/enhance an employer value proposition to attract skilled candidates and improve employee retention as an additional mitigation · Organisation-Wide Project Management Office · Artificial Intelligence Strategy
	· Failure to establish a sustainable and competitive export and domestic market for South African products and services	· Develop Funding model: Incl SWx, EO, SE, & SO · Customer-centricity · Viable Business models (Programmes) · Business Development: Market analysis and diversification strategies · Investment in marketing and promotion · SANSA investment and sustainability strategy

Outcome	Key Risks	Risk Mitigations
Crosscutting	· Cybersecurity vulnerabilities leading to potential data breaches, malware infections, and phishing attacks · Failure to build a positive public image owing to low brand awareness	· Regular update and patch systems · Ongoing employee training on security best practices, Quarterly Cyber security User Awareness · Advanced threat detection and prevention systems; Firewall, Spam Filters, Antivirus, policies · Regular systems backup in accordance with the DRP · Advance Email Security/ MimeCast · ICT Security Procedures · Security Operations Centre (SOC), cyber security monitoring · Regular penetration tests · Acceptable use Policy · Develop and implement integrated marketing sand communication strategy · Increase investment in targeted marketing and publicity campaigns to enhance urban and rural reach · Monitor and measure brand performance · Media monitoring and analysis to evaluate brand reputation · Enhance digital presence through social media.

4. PUBLIC ENTITIES

Not applicable.

5. INFRASTRUCTURE PROJECTS

Table 37: SANSA planned infrastructure projects for 2025/26

Project Name	Programme	Description	Outputs	Start Date	Completion Date	Total Estimated Cost	Prior Year Expenditure	Current Year Expenditure
AIT facility	SE and SO	Development and upgrade of AIT facility	Infrastructure for the Industry	1 April 2021	31 March 2027	R36 million	-	-
MTJ deep space ground network	SE and SO	Lunar Exploration Ground Sites (LEGS) at the MTJ site	Establishment of the ground segment	1 November 2022	31 October 2027	R75 million	-	-
EO-SAT1	SE	Development and launch of South Africa's first operational Earth Observation satellite.	Infrastructure, Intellectual Property, Space Heritage, Human Capital Development, Prestige.	1 April 2024	31 March 2027	R315 million	0	0

6. PUBLIC PRIVATE PARTNERSHIPS

Not applicable.

PART D

TECHNICAL INDICATOR DESCRIPTIONS

Indicator Title 1.1.1	Number of established partnerships actively contributing to the national space capability
Definition	The indicator tracks the number of formal partnerships (international, continental, and national) established and actively contributing to the development and enhancement of South Africa's national space capability. Active contribution includes resource sharing, co-development of space technologies, training, joint research projects, or other collaborative activities aligned with SANSA's strategic outcomes, including in the following areas: · Transformative research and innovation partnerships. · International mobility programmes for training and skills development. · Partnerships that leverage the synergy between international trade and innovation, including those that attract foreign investment. · Leveraging the Multilateral Cooperation (BRICS; ARMC) Continental and Global initiative (G20) that responds to SANSA strategic outcomes. The implementation of the collaboration/partnership is dependent on teamwork between the Corporate Stakeholder Engagement Role and the SANSA core Programmes (EO, SS, SO, and SE).
Source of Data	Partnership agreements or Memoranda of Understanding (MoUs). Progress reports from SANSA programme managers. Records of joint activities, resource sharing, or project outputs.
Method of Calculation / Assessment	Simple count of all formalised partnerships that demonstrate tangible contributions, such as completed activities, deliverables, or outcomes within the reporting period.
Means of Verification	Partnership progress reports are signed off on a quarterly basis. The partnership progress report must state what and how the strategic intent was achieved through the reported initiative or partnership.
Assumptions	Partnerships are formalised and aligned with the dimensions for developing the national space capability. Active collaboration occurs within the reporting period, with measurable outcomes.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	CEO's Office: Stakeholder Engagement Unit.

Indicator Title 1.2.1.	Functional SAEOS portal established
Definition	The indicator measures the establishment of a fully functional SAEOS (South African Earth Observation System) portal, which serves as a centralised platform for accessing, managing, and disseminating Earth observation (EO) data. A functional portal includes features such as user accessibility, metadata integration, data discoverability, and operational tools for stakeholders to support decision-making.
Source of Data	Development and deployment reports. User acceptance testing (UAT) documentation. Portal usage analytics and functionality reports.
Method of Calculation / Assessment	Assessment of the portal against defined functional requirements, including: • Accessibility: The portal is live and accessible online. • Data discoverability: SANSA EO data is searchable and accessible via the portal. • Metadata integration: Inclusion of at least one data custodian's metadata.
Means of Verification	Operational testing reports verifying the portal meets functional requirements. User feedback or surveys confirming usability and accessibility. Demonstration or live access to the portal.
Assumptions	Adequate resources (funding, technical expertise) are available to develop and deploy the portal.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Annually (Q2 2025/26).
Desired Performance	Achievement of targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation.

Indicator Title 1.3.1	Break-even revenue to total SWx Cost
Definition	The indicator tracks the cost over income percentage relating to the Space Weather (SWx) to track progress made towards sustainability.
Source of Data	Invoices
Method of Calculation / Assessment	=SWx operating expenses / operating income (calculated as a percentage). Cost to cover the income measured as a percentage of income generated by the SWx.
Means of Verification	SANSA revenue and expenditure reports from Finance.
Assumptions	Availability of timely financial records that can be validated.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Annually.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Science.

Indicator Title 1.4.1	Number of public awareness initiatives implemented
Definition	The indicator is designed to measure the marketing of space products and services to key users.
Source of Data	Tracking of awareness and training interventions, including the users reached.
Method of Calculation / Assessment	A simple count of awareness initiatives. A spreadsheet and/or registers will be maintained indicating the users reached, the awareness or training interventions undertaken, and the related products and services. Attendance registers will be kept as a record. Where applicable, written confirmation of remote / virtual training sessions.
Means of Verification	Reports and other records are signed off on a quarterly basis.
Assumptions	Participation of targeted beneficiaries.
Disaggregation of Beneficiaries	Beneficiaries will include youth, women, and persons with disabilities and data collection will ensure disaggregation of beneficiaries.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Science.

Indicator Title 1.4.3.	Percentage achievement of AIT facility upgrade project implementation milestones
Definition	The indicator measures the percentage of planned milestones achieved during the implementation of the AIT (Assembly, Integration, and Testing) facility upgrade project. Milestones include infrastructure upgrades, procurement of specialised equipment, and operational readiness activities necessary to enhance the facility's capacity to support space, automotive, and defence industries.
Source of Data	Project implementation plans and milestone schedules. Progress reports from the AIT facility project team.
Method of Calculation / Assessment	Percentage achievement = (number of milestones completed / total milestones planned for the period) x 100.
Means of Verification	Project Schedule showing comparison between project plan and achieved milestones, with supporting documents.
Assumptions	Sufficient funding and resources are allocated to the project. Project schedule and milestones not affected by external factors such as supplier disruptions.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Annually.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Engineering.

Indicator Title 1.5.1.	Percentage achievement of MTJ project implementation milestones
Definition	Progress against the project implementation plan for the development of the Matjiesfontein deep space facility.
Source of Data	Quarterly reports prepared on the project progress against the project concept document.
Method of Calculation / Assessment	Tracking of progress (in percentage) against the project implementation plan.
Means of Verification	Project Schedule showing comparison between project plan and achieved milestones
Assumptions	Availability of requisite funding from government.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Annually.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Operations.

Indicator Title 1.5.2.	Percentage achievement of EO-SAT1 project implementation milestones
Definition	The indicator tracks the percentage of planned EO-SAT1 project milestones successfully achieved during the reporting period. The EO-SAT1 project focuses on developing South Africa's first government-owned commercial Earth Observation satellite. Milestones include design, development, testing, and deployment phases critical to the project timeline.
Source of Data	Quarterly reports are prepared on the project progress against the approved project plan. Tracking of progress against key milestones.
Method of Calculation / Assessment	Percentage achievement = (number of milestones completed / total milestones planned for the period) x 100.
Means of Verification	Project Schedule showing comparison between project plan and achieved milestones, with supporting documents.
Assumptions	Project schedule and milestones not affected by external factors that limits the accuracy. Existence of project implementation capacity and adequate funding.
Disaggregation of Beneficiaries	Local industry support to yield upstream benefits in terms of economic stimulation and downstream benefits to be realised once the system is operational.
Spatial Transformation	National.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Annually.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Engineering.

Indicator Title 2.1.1.	National research productivity score for supported R&D
Definition	The research productivity score for R&D. This is meant to demonstrate SANSA's research output and is an indicator of research output, quality, impact, and relevance.
Source of Data	This productivity score is based on a function of research funding sourced + publications (journals, books, reports, proceedings) + students graduated + research rating status + researcher status as an editor of journals, books, reports and proceedings. Data sources to include: i. Published papers in PDF and hard copy available. For books - front pages available in PDF. Impact Factor as per the quarter end date determined from publisher's web page (screen shot to be retained). ii. Proceedings or popular articles in PDF available. iii. Grant funding listed for the calendar year in grant award registers, and award letters available – also available from finance system as grant income received, copy of register from NRF System indicating payments received for that year up to end of quarter. Only grant funding for research projects or grant holder linked student funding should be included – no independent student (PDP) or post doc or science engagement funding. iv. Students graduated – list is maintained with PDF copies of degree certificates or award letters or university confirmation letters. v. Research rating status – determined by rating award letters. vi. researcher status as an editor – published material in PDF copy; hard copy or web page screen shot available.
Method of Calculation / Assessment	Composite score as calculated in "Determination of Research Productivity Score" document.
Means of Verification	Excel sheet with composite score calculation.
Assumptions	Availability of required data on key inputs to be scored and reported.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation and ED: Space Science.

Indicator Title 2.2.1.	Number of decision-support tools developed in key thematic areas
Definition	The indicator measures the number of decision-support tools developed by SANSA in key thematic areas such as disaster risk reduction, climate change, food security, and urban planning. The tools are designed to provide actionable insights for stakeholders, enabling evidence-based decision-making and contributing to the national developmental agenda.
Source of Data	Development project plans and progress reports. Tool documentation, including user manuals and technical specifications. Deployment records and stakeholder feedback reports.
Method of Calculation / Assessment	A simple count of decision-support tools completed and deployed for use during the reporting period. A tool is considered 'developed' when it meets all specified requirements, passes quality assurance, and is made operational for stakeholders.

Indicator Title 2.2.1.	Number of decision-support tools developed in key thematic areas
Means of Verification	Tool demonstration or operational availability. Project completion reports validated by SANSA governance structures. Stakeholder or user acceptance testing records.
Assumptions	Adequate funding and technical resources are available for tool development.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	The tools are expected to prioritise areas with the greatest need, particularly underrepresented or underserved regions, contributing to equitable spatial development.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Annually.
Desired Performance	Achievement of targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation.

Indicator Title 3.1.1.	Rand value of revenue generated from space operations, applications and services
Definition	The indicator measures the revenue generation capacity from all space operations, applications and services. The revenue generated by the organisation for the financial year includes all forms of income beyond the parliamentary grant, e.g., intercompany contractual revenue, external contracts, and ring-fenced grant income.
Source of Data	The information is based on signed contracts and the actual financial transactions on the financial system and reported numbers on the financial statements.
Method of Calculation / Assessment	The total rand value of all the contractual revenue generated from space operations, applications and services.
Means of Verification	Contracts with the clients and / or invoices.
Assumptions	Stakeholder engagement and collaboration.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation/ ED: Space Operations / ED: Space Science.

Indicator Title 3.2.1.	Number of missions supported
Definition	The indicator seeks to track the number of normal missions SANSA has provided support services to. A normal mission is defined as a mission in the low-earth orbit and geosynchronous orbit. Support to missions bolsters confidence and trust amongst stakeholders, including other space agencies, governments, and private sector partners, solidifying SANSA's reputation and opening the possibilities to more partnerships and collaboration opportunities. Tracking the missions that SANSA has provided support services to is a means to ensure continuous improvement, optimise performance, and build a foundation for future growth and trust in the agency's capabilities.
Source of Data	Quarterly report on missions supported.
Method of Calculation / Assessment	Simple count of the number of missions supported.
Means of Verification	Report that documents the missions that SANSA has provided support to, with supporting documentation.
Assumptions	Stakeholder engagement and collaboration. Availability of functional antennas.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Operations.

Indicator Title 3.2.2.	Number of exploration missions supported
Definition	The indicator seeks to track the number of exploration missions SANSA has provided support services to. Exploration missions are defined as non-earth orbits which may include sun, other planets, moon orbit (primary orbit). Tracking successful exploration missions that SANSA has provided support services for enables the space agency to build a record of reliability, enhance strategic planning, foster partnerships, and demonstrate the responsible use of resources – all of which are essential for sustaining and expanding exploration efforts.
Source of Data	Quarterly report on missions supported.
Method of Calculation / Assessment	Simple count of the number of exploration missions supported.
Means of Verification	Report that documents the missions that SANSA has provided support to, with supporting documents.
Assumptions	Stakeholder engagement and collaboration. Availability of functional antennas.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-end).
Reporting Cycle	Annually.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Operations.

Indicator Title 3.3.1.	Number of new hosted facilities
Definition	The indicator tracks the number of new hosted systems. A hosted facility is defined as distinct new infrastructure located on a SANSA site, from either a new customer or the expansion of an existing customer facilities.
Source of Data	Quarterly reports on new hosted systems.
Method of Calculation / Assessment	A simple count of the number of new hosted systems (projects).
Means of Verification	New contract or service order for new hosted facility.
Assumptions	Stakeholder engagement and collaboration.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly (Q2, Q3, and Q4).
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Operations.

Indicator Title 3.4.1.	Number of commercial agreements signed
Definition	The indicator tracks the number of commercial agreements successfully concluded for infrastructure hosting (attract BRICS+, and other global space agencies and nations).
Source of Data	Signed commercial agreements.
Method of Calculation / Assessment	A simple count of the number of commercial agreements signed.
Means of Verification	Commercial agreements signed with SANSA clients.
Assumptions	Stakeholder engagement and collaboration.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Space Science.

Indicator Title 4.1.1.	Percentage contract operational expenditure spend on SMEs
Definition	The indicator measures the extent to which SANSA is supporting SMEs through all contract operational expenditure spend, as overseen by SCM for the organisation. The indicator measures the percentage of all contract operational expenditure that is expended to SMMEs for all SANSA programmes, including Administration, Earth Observation, Space Science, Space Operations and Space Engineering. Data licence fees will be an exception and are not to be considered in calculation of the SMME contract values. Key considerations will be supplier turnover of no more than R50 million and employees not exceeding 250.
Source of Data	Invoices for related expenditure.
Method of Calculation / Assessment	Rand value of invoices that is paid to SMMEs divided by the total SANSA contract operational expenditure, expressed as a percentage.

Indicator Title 4.1.1.	Percentage contract operational expenditure spend on SMEs
Means of Verification	Invoices, Central Supplier Database certificates (CSDs) and SCM reports reflecting supplier expenditure.
Assumptions	Availability of SANSA funds to be expended on programmes under its control. Mechanisms to be developed and implemented for the monitoring and reporting of progress relating to MTDP targets including those relating to Women, Youth and PWDs.
Disaggregation of Beneficiaries	While this may not be possible to achieve in the next financial year, SANSA will strive towards achieving the MTDP 2024-2029 targets for designated groups: · Black women-owned SMMEs – 40% · Black youth-owned SMMEs – 30% · PWD-owned SMMEs – 3%
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation/ ED: Space Science / ED: Space Operations / ED: Space Engineering.

Indicator Title 4.1.2.	Percentage total expenditure spend on Black-owned businesses
Definition	This measures the extent to which SANSA is supporting the transformation agenda through all procurement expenditure, excluding employment costs, as overseen by SCM for the organisation. The indicator measures the percentage of all operational and capital expenditure that is spent on black-owned business for all SANSA programmes, including Administration, Earth Observation, Space Science, Space Operations and Space Engineering. Data licence fees will be an exception and are not to be considered in calculation. Enterprises are regarded as black-owned if 51% of the enterprise is owned by black people.
Source of Data	Invoices for related expenditure.
Method of Calculation / Assessment	Rand value of invoices received by black-owned businesses divided by the total SANSA operational and capital expenditure.
Means of Verification	Invoices, Central Supplier Database certificates (CSDs) and SCM reports reflecting supplier expenditure on outsourced services.
Assumptions	Availability of SANSA funds to be expended on programmes under its control.
Disaggregation of Beneficiaries	While this may not be possible to achieve in the next financial year, SANSA will strive towards achieving the MTDP 2024-2029 targets for designated groups: · Black women-owned businesses – 40% · Black youth-owned businesses – 30% · PWD-owned businesses – 3%
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation/ ED: Space Science / ED: Space Operations / ED: Space Engineering.

Indicator Title 5.1.1.	Number of youth directly engaged on space-related sciences
Definition	The indicator measures the number of young people engaged directly through some specific activity (e.g., visit by learners to a SANSA facility, learner workshop/ lesson, SANSA visit to a school, Mobile Lab activity) and will exclude a count of young people who visit SANSA stands at exhibits.
Source of Data	· Hard copies of attendance register of activities. · PDF of attendance registers and summary. · Other relevant reports or written confirmations to be utilised where applicable (e.g., virtual sessions).
Method of Calculation / Assessment	A simple count of youth. Manual calculation of the quantitative number of youth beneficiaries. Youth beneficiaries refer to all individuals engaged by SANSA that are aged from six years to 34 years.
Means of Verification	· Signed-off attendance registers – sign-off by educator or SANSA representative acceptable. · Other relevant reports or written confirmations to be utilised where virtual sessions were held.
Assumptions	Participation of targeted beneficiaries.
Disaggregation of Beneficiaries	100% youth, disaggregated equally between women and men.
Spatial Transformation	Activities will cover all districts identified in the District Development Model.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Higher than targeted performance is desirable.
Indicator Responsibility	ED: Earth Observation / ED: Space Science.

Indicator Title 5.2.1.	Number of students and interns supported for formalised training
Definition	The total number of students currently linked and supported by SANSA through bursaries and/or supervised by SANSA researchers as well as the total number of interns supported by SANSA. SANSA employees who are supported under any SANSA employee's development scheme should not be counted. Further, this excludes short courses and focuses on students that are registered for some formal training for a degree, diploma, or certificate within the South African National Qualification Framework. Interns that are employed through any mechanism and mentored by a SANSA employee are counted.
Source of Data	· All active contracts of supervision engagement. · All active internship contracts and other SANSA student support agreements.
Method of Calculation / Assessment	Consolidated manual head count of all supported students and interns across SANSA programmes. Students and interns are supported subject to funding being available in that financial year. Consequently, each student and intern will be counted for every financial year that SANSA is able to support them, even if their degree / programme / internship runs over multiple years. The academic year and the financial year are not the same. Consequently, students and interns that accept offers in the 4th quarter (beginning of the academic year), are only counted in the 1st quarter (the beginning of the financial year). Otherwise, they are counted in the quarter that the offer was made and accepted.
Means of Verification	Contracts and student agreements / proof of student supervision / SANSA registers of supported students and interns.

Indicator Title 5.2.1.	Number of students and interns supported for formalised training
Assumptions	Participation of targeted beneficiaries. Availability of finding.
Disaggregation of Beneficiaries	Beneficiaries may include youth, women, and persons with disability as appropriate. Black women will be prioritised.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Quarterly.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Space Science.

Indicator Title 5.2.2.	Number of students and interns supported for technical training
Definition	The total number of students or interns currently linked and supported by SANSA through internships at TVET level. Students and interns may be exposed to technical training opportunities at the SANSA HBK facility.
Source of Data	All active internship contracts and other SANSA student support agreements for TVET level.
Method of Calculation / Assessment	Consolidated manual head count of all supported students and interns provided technical support capacitation at TVET level. Students and interns are supported subject to funding being available in that financial year. Consequently, each student and intern will be counted for every financial year that SANSA is able to support them, even if their programme / internship runs over multiple years. The academic year and the financial year are not the same. Consequently, students and interns that accept offers in the 4th quarter (beginning of the academic year), are only counted in the 1st quarter (the beginning of the financial year). Otherwise, they are counted in the quarter that the offer was made and accepted.
Means of Verification	Contracts and student agreements / proof of student supervision / SANSA registers of supported students and interns.
Assumptions	Participation of targeted beneficiaries. Availability of finding.
Disaggregation of Beneficiaries	Beneficiaries may include youth, women, and persons with disability as appropriate. Black women will be prioritised.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Bi-annually.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Space Operations.

Indicator Title 6.1.1.	Number of initiatives to transform SANSA into a high-performing agency
Definition	This indicator provides for the interventions needed to improve the performance of SANSA.
Source of Data	The Executive Committee (EXCO) approved initiatives: i) HCD programme, ii) Marketing Strategy.
Method of Calculation / Assessment	A simple count of number of the initiatives.
Means of Verification	Interventions approved by EXCO. EXCO minutes.
Assumptions	Availability of internal capacity.

Indicator Title 6.1.1.	Number of initiatives to transform SANSA into a high-performing agency
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Annually.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Enterprise Services.

Indicator Title 6.2.1.	Number of major brand awareness initiatives implemented
Definition	The indicator tracks the number of significant brand awareness initiatives implemented by SANSA within the reporting period. These initiatives aim to enhance public and stakeholder awareness of SANSA's activities, services, and contributions to South Africa's space capabilities, ultimately improving the organisation's brand awareness rating. Examples of initiatives include national campaigns, media outreach, exhibitions, and participation in industry forums.
Source of Data	Findings of the annual brand awareness survey conducted by the DSTI. Campaign and project reports. Media analytics and engagement metrics (e.g., social media reach, website traffic). Event participation records and stakeholder feedback.
Method of Calculation / Assessment	Simple count of major initiatives implemented, defined as activities with measurable outputs and targeted at raising SANSA's visibility and reputation.
Means of Verification	Documentation of initiative outcomes (e.g., media coverage reports, campaign analytics). Records of stakeholder engagement or feedback collected during or after initiatives.
Assumptions	Availability of internal capacity, adequate funding and resources to execute major initiatives.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Cumulative (year-to-date).
Reporting Cycle	Quarterly.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Enterprise Services.

Indicator Title 6.3.1.	6.3.1. ISO accreditation achieved
Definition	The indicator tracks the implementation of ISO standards by SANSA to ensure accreditation.
Source of Data	ISO accreditation certificate. Approved implementation plan.
Method of Calculation / Assessment	ISO 9001 accreditation certificate awarded to SANSA programmes: · Space Science · Space Operations
Means of Verification	Interventions implemented to achieve SANSA's ISO 9001 accreditation.
Assumptions	Availability of internal capacity.

Indicator Title 6.3.1.	6.3.1. ISO accreditation achieved
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Annually.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Space Science / ED: Space Operations.

Indicator Title 6.3.2.	Development and implementation of ISO standards implementation plan
Definition	The indicator tracks progress made towards implementation of ISO standards by SANSA to ensure accreditation.
Source of Data	ISO Implementation Plan.
Method of Calculation / Assessment	Percentage of progress achieved against the Implementation Plan.
Means of Verification	Verification of approved ISO Implementation Plan.
Assumptions	Availability of internal capacity. Available Budget. SE - AIT facility available and operational.
Disaggregation of Beneficiaries	Not applicable.
Spatial Transformation	Not applicable.
Calculation Type	Non-cumulative.
Reporting Cycle	Annually.
Desired Performance	Achievement of the targeted performance is desirable.
Indicator Responsibility	ED: Space Engineering.

ANNEXURES TO THE ANNUAL PERFORMANCE PLAN

ANNEXURE A: AMENDMENTS TO THE STRATEGIC PLAN

Not applicable.

ANNEXURE B: CONDITIONAL GRANTS

Not applicable.

ANNEXURE C: CONSOLIDATED INDICATORS

Not applicable.

ANNEXURE D: DISTRICT DEVELOPMENT MODEL

Areas of intervention	Five-year Planning Period					
	Project description	District Municipality	Location: GPS Coordinated	Project Leader	Social Partners / Key Project Stakeholders	Allocated Budget
Spatial development	High- and medium-resolution satellite imagery supporting decision-making	Various districts and metros	Various throughout country	Data, Products and Services (DPS) Manager	Not applicable	R30 million
	National Water Quantity Information System	Various districts and metros	Various throughout country	Space Intelligence (SI) Manager	Department of Water and Sanitation	
	Disaster awareness initiatives based on the disaster prevalence in each district	Various districts and metros	Various throughout country	SI Manager	National Disaster Management Centre	
	Flood risk layer or product derived for the entire country and analysed per districts or metros	Various districts and metros	Various throughout country	SI Manager	National Disaster Management Centre	
	Human Settlement layer or product used for spatial planning	All districts and metros	Various throughout country	SI Manager	Dept. of Human Settlements; Housing Development Agency/districts and local municipalities MDB; IEC; Eskom and other relevant entities	

Areas of intervention	Five-year Planning Period					
	Project description	**District Municipality**	**Location: GPS Coordinated**	**Project Leader**	**Social Partners / Key Project Stakeholders**	**Allocated Budget**
	DDM decision-support tools	All districts and metros	All throughout country	SI Manager	All districts and local municipalities, provincial and national departments responsible for services	R20 million
Ecological and Biodiversity	High- and medium-resolution satellite imagery supporting decision-making	Various districts and metros	Various throughout country	SI Manager	All district and metros across the countries	R10 million
	National Water Quantity Information System	Various districts and metros	Various throughout country	SI Manager	DWS, DFFE, Various District and metros	R12.5 million
Social development	Science outreach projects, SS	Main focus Western Cape (Hermanus) further outreach to other districts countrywide	-34.42413˚S 19.22485˚E	Science Engagement Management and staff	Tourists and Business	±R7 million
	Municipal training	Three districts will be prioritised per year amounting to 15 district municipalities trained in five years	Various locations per province	Science Engagement Manager	District and local municipalities to be trained	±R1.5 million
	Employment opportunities during operational phase of MTJ (operations technicians, maintenance technicians, labourers, support personnel)	Matjiesfontein/ Laingsburg	-33.241384˚S 20.551414˚E	SANSA SO HR	Local Schools, TEI's MTJ community, Laingsburg Town Ultimately the Western Cape Government	Budget will be a percentage of project cost and the % of time spend on HCD in the communities

Areas of intervention	Five-year Planning Period					
	Project description	**District Municipality**	**Location: GPS Coordinated**	**Project Leader**	**Social Partners / Key Project Stakeholders**	**Allocated Budget**
Economic and Infrastructure	Space Weather Capability (SWx)	Overberg District Municipality	-34.42413°S 19.22485°E	Special Projects Lead	DSTI, Government, SOE and Private sector	Infrastructure value: R375 million centred in Hermanus, bringing business and tourists to the town and employing 84 staff members
	High resolution satellite imagery supporting infrastructure monitoring	Various districts and metros	Various throughout country	DPS Manager	PICC	
	3,7m antenna for Earth Observation Data	Mogale City	25,53,14.66S 27.42.28,59E	ED: Space Operations	Not applicable	
	Houwteq Assembly Integration and Testing	Overberg Municipality	-34.221869° S19.129867°E	Project Manager	Khoisan Community that has settled at the vicinity of High Rising Road leading to Houwteq Precinct.	R62 million
	Supplier development	Matjiesfontein/ Laingsburg	-33.241384°S 20.551414°E	Project manager: MTJ ground station	New suppliers to the Development from Laingsburg and The MTJ community	Operational cost 40% for service such as security, Cleaning, local labour
	Service and product provision opportunities: Various during construction phase of MTJ	Matjiesfontein/ Laingsburg	-33.241384°S 20.551414°E	Project manager: MTJ ground station	Civil contractor appointed by SO under the contract will be responsible for local supplier beneficiation	Operational cost 40% for service such as security, Cleaning, local labour
	Service and product provision opportunities: Various during operations of MTJ (Garden services/ security etc.)	Matjiesfontein/ Laingsburg	-33.241384°S 20.551414°E	Project manager: MTJ ground station and SANSA SO Management	Local service providers as developed through the supplier development process	Operational cost 40% for service such as security, Cleaning, local labour

Areas of intervention	Five-year Planning Period					
	Project description	District Municipality	Location: GPS Coordinated	Project Leader	Social Partners / Key Project Stakeholders	Allocated Budget
Safety and Security	Magnetically Clean Environment supporting magnetic technology products and services for the defence and space sectors	Overberg District Municipality	-34.42413°S 19.22485°E	Applied Science and Technology Manager	DSTI, Government, SOE and Private sector	Infrastructure value: R375 million centred in Hermanus, bringing business and tourists to the town and employing 84 staff members

ANNEXURE E: SANSA DETAILED RESPONSE TO THE DECADAL PLAN (2022)

As part of the 2024/25 strategic planning process, SANSA Exco conducted a detailed analysis of the strategic initiatives and implementation considerations in terms of the enablers, societal grand challenges, and STI priorities of the Decadal Plan (2022). It provides a comprehensive list of opportunities to be considered in SANSA's annual planning cycles over the medium-term.

1) Decadal Plan Enablers:

Human Resources, International Collaboration, Infrastructure (Physical and/or Cyberinfrastructure), and Investment:

Strategic Initiatives	Implementation Considerations
HUMAN RESOURCES	

· Develop integrated, targeted skills and competencies development and outreach programme:
  · Bursaries allocation based on skills needed for future state of industry
  · Apprenticeships and practical training programme for TVET and B-TECH students (Critical)
  · Integrated outreach programmes
  · Linkage with skills development forum
  · Industry talent placement approach
  · Partnerships with SETAs
  · Identify specific schools/leaners (e.g., schools of specialisation in Gauteng) to elevate exposure to space science.
· Space education inclusion in basic education curriculum (input into increase in numbers of learners taking STEM).
	· Conduct skills audit (internal, and the science and technology industry)
	· Engaging with Dept of Basic Education on curriculum (inclusion of space education)
	· Funding application to DSI for funding of apprentices and trainee technicians
	· Engagements with DHET to access SETA funding (Public Service Seta / MICTSETA):
	  · Skills developed through partnerships with SETAs, priority for TVET/BTech students.
	· Seek opportunities to develop skills for the space industry in other provinces, e.g., partnership with the Thohoyandou Skills Development, per MoU.

Strategic Initiatives	Implementation Considerations
INTERNATIONAL COLLABORATION	

• Implement SANSA's stakeholder engagement framework (strategy compact):
  • Government departments/institutions as SANSA's primary stakeholder.
  • Foreign governments, responsible for incubating the national space programmes.
  • Research and academic institutions (regional and international), supporting space and technology development.
  • Space forums (regional and international), for development of global space policies, principles and programmes based on international cooperation.
  • Other: General public, media, customers (local and international market), contractors, industry – national space companies in the value chain, space agencies/ institutions, and NGOs.
	• Develop a detailed matrix of each strategic partner:
	  • ID for each local and global market
	  • ID the opportunities for mutual benefit and alignment of space-related initiatives and operational capabilities
	  • Prioritise an investment mindset as Africa's leading Space Agency.

INFRASTRUCTURE	
Implementation of: • **Space Infrastructure Hub (SIH),** which combines physical infrastructure and big data-driven technologies, to support mission development for future SA satellites, satellite communications capabilities, and the development of local satellite navigation augmentation systems. • **Assembly Integration and Testing (AIT) Facility,** for SADC and Africa, supporting the satellite build programme, industrial and human capital development. • **Ground segments:** • HBK and MTJ (Deep space network ground station) • **EODC**, with DESA as interface • **CDF** – Concurrent Design Facility • New SANSA head office building.	NT treasury engagements on funding mechanism
INVESTMENT	
• Explore establishment of a SPV for investment and sustainability strategy (per SANSA Act). Access investment in: • Banking, insurance, health innovation, and mining • Downstream – develop portfolio of applications and services to be provided for Treasury potential top slicing from departments. • Increased revenue streams – MTJ, SWx, Space Operations. • Internationalisation and science diplomacy – use of country's geographic advantage in hosting facilities for global space partners and generating FDI • Establish bilateral cooperation's with development finance agencies to mobilise funding • dtic – Space Industrialist Framework, implementation plan under development (mobilise funding) • Business accelerators and incubators (linking with existing and creating new).	• Portfolio of products marketed to sell across three spheres of government, and others – NEPAD, WFP, and philanthropies • EO Strategy/Plan on how to generate the R125 million • NEO frontiers fund – investing in start-ups that take products to market (Equity Funding). • Redefine as an investment fund, build the industry. Move towards NEO funding/ supporting certain number of SMEs • Review Centres of Competence.

2) Societal Grand Challenges:

Climate Change, Future-Proof Education, Reindustrialised Modern Economy, and the Future of Society

Strategic Initiatives	Implementation Considerations
CLIMATE CHANGE	
· Develop decision-support tools to support climate change adaptation and resilience, including building early warning systems.	· Leading in providing overall direction in terms of earth intelligence: Develop the decision-support tools to support climate change adaptation and resilience (social, economic, and environmental).
FUTURE-PROOF EDUCATION	
· Disruptive space education flagship, including shift to 4IR, coding, Internet of Things, AI, big data, and robotics in education.	· Build human capabilities in C4ISIR (command, control, communications, computers, intelligence, surveillance, reconnaissance).
REINDUSTRIALISED MODERN ECONOMY	
· Smart agriculture – build precision agriculture information system (PAIS) · Smart mining – build mining information system (observe available resources) · Defence and security information management system – digital terrain and environmental intelligence for deployed soldiers · Satellite development programme – for future space missions that will reindustrialise the space industry (high-tech advanced manufacturing) · OCIMS and SAR data acquisition – contribute new decision-support tools to OCIMS · MDASAT constellation development (AIS/VDES) · K (potassium)-line sensor development · SAR satellite mission development · Downstream reindustrialisation of the space industry – building new industries focusing on earth intelligence (NEOFrontiers) · Space-based augmentation system (SBAS) implementation · Indigenous launch capability implementation.	· Develop overarching approach and products/ services portfolio for phased implementation.
THE FUTURE OF SOCIETY	
· Provide sustainable Human Settlement information systems (rural and urban) · Machine2Machine (M2M) satellite constellation mission development · Support implementation of DDM (empower municipalities with space infrastructure) · Community-based products and services: Co-develop/grassroots innovation/local.	· Community-based products and solutions (co-developments, grass roots innovation, local entrepreneurs) · Municipal EODC (run and build own decision-support tools – opportunities for locals) - develop framework, partnerships with universities, incubation hub, access to markets… connect the dots, e.g., link to education (value chain). Facilitate.

3) STI Priorities:

Health Innovation, and Energy Innovation

Strategic Initiatives	Implementation Considerations
HEALTH INNOVATION	
· Remote sensing epidemiology (mapping) · Mapping of non-communicable diseases, e.g., cholera outbreaks, malaria · Develop health information decision-support system, inclusive of e-Health (surface heat vulnerability information).	
ENERGY INNOVATION	
· Decision-support tools for renewables (Mapping etc.) – suitability studies to ID areas to harvest more sunlight to support renewable energy transition · Spatial mapping for local municipalities: develop information system (i.e., to count number of houses with solar panels) · Electricity access spatial mapping – for developmental impact.	Develop SANSA's plan to contribute to the JET.

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