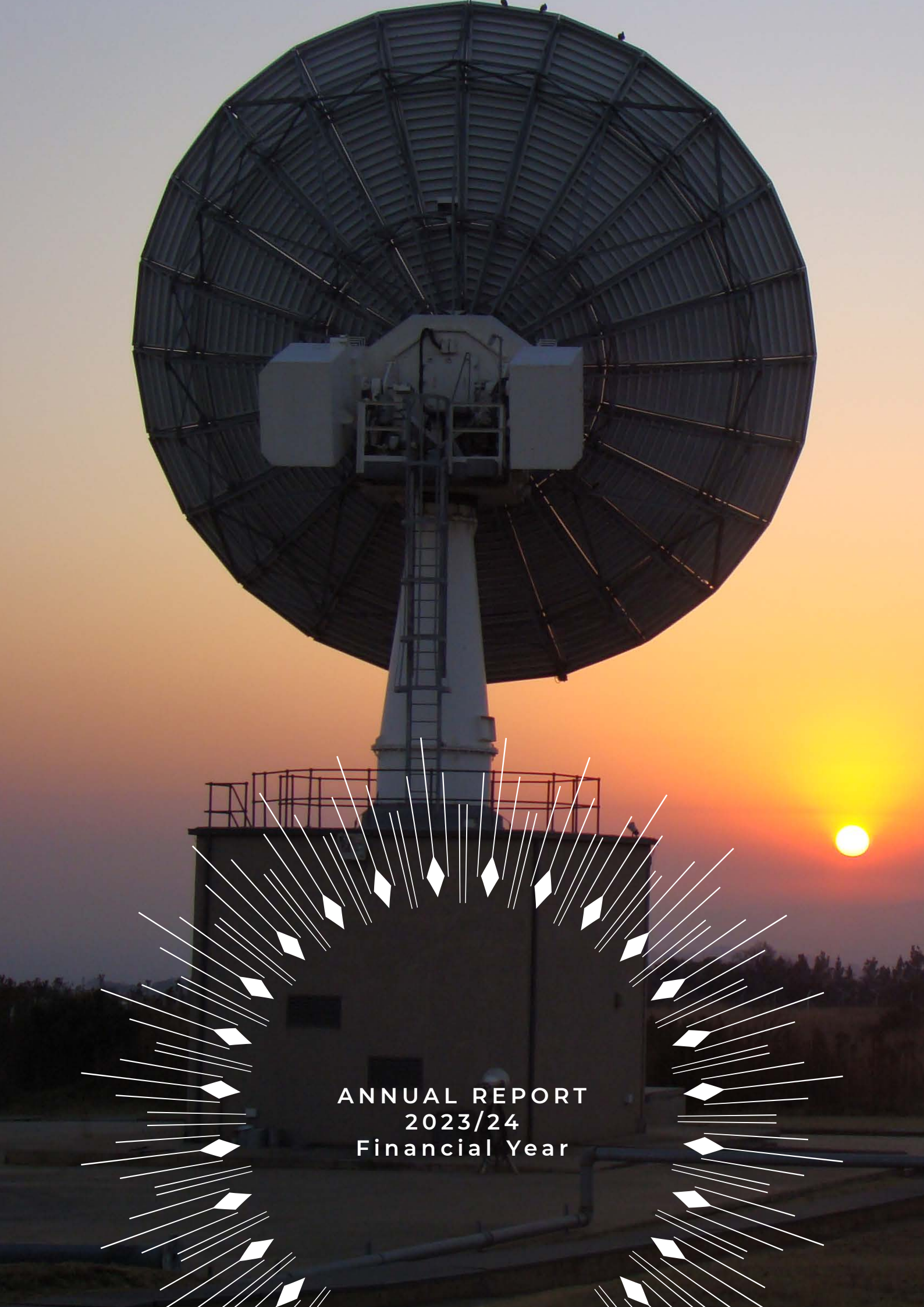
ANNUAL REPORT 2023/24

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

SANSA
SOUTH AFRICAN NATIONAL
SPACE AGENCY

30 YEARS OF FREEDOM
South Africa 1994 - 2024



ANNUAL REPORT
2023/24
Financial Year

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PART A

GENERAL INFORMATION

1. Public Entity's General Information

Registered Name	South African National Space Agency (SANSA)
Registered Number	Not Applicable
Chairperson of the Board	Mr Patrick Ndlovu
Chief Executive Officer	Mr Humbulani Mudau
Registered Office Address	Enterprise Building Mark Shuttleworth Street The Innovation Hub Pretoria 0087
Postal Address	PO Box 484 Silverton 0127
Contact Telephone Numbers	+27 12 844 0500
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Website Address	https://www.sansa.org.za
Email Address	information@sansa.org.za
Bankers	ABSA Bank 7th Floor Absa Towers West 15 Troye Street Johannesburg 2001
External Auditors	A2A Kopano Incorporated 147 Marais Street Brooklyn Pretoria 0181
Acting Board Secretary	Mr Mmoledi Malokane

2. List of Abbreviations

AIT	Assembly Integration and Testing
APP	Annual Performance Plan
ARC	Audit and Risk Committee
ASRI	Aerospace Systems Research Institute
ATNS	Air Traffic and Navigation Services
B-BBEE	Broad-Based Black Economic Empowerment
BFI	Budget Facility for Infrastructure
BRICS	Brazil, Russia, India, China, and South Africa
CBA	Cost Benefit Analysis
CDEF	Concurrent Design Engineering Facility
CEO	Chief Executive Officer
COVID-19	Coronavirus Disease 2019
CPUT	Cape Peninsula University of Technology
CSIR	Council for Scientific and Industrial Research
DLR	German Space Agency
DRC	Democratic Republic of the Congo
DoT	Department of Transport
DSI	Department of Science and Innovation
dtic	Department of Trade, Industry and Competition
EGNOS	European Geostationary Navigation Overlay Service
EO	Earth Observation
EO-Sat	Earth-Observation Satellite
ERRP	Economic Reconstruction and Recovery Plan
ESA	European Space Agency
EVI	Enhance Vegetation Index
EXCO	Executive Committee
FY	Financial Year
GEO	Group on Earth Observations
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GRAP	Generally Recognised Accounting Practice
HCD	Human Capital Development
HF	High Frequency
HPC	High-Performance Computing
IAC	International Astronautical Congress
ICAO	International Civil Aviation Organization
ICT	Information and Communications Technology
ISO	International Organzation for Standardization
ISWC	International Space Weather Camp
KZN	KwaZulu-Natal
MDAsat	Maritime Domain Awareness Satellite
MoU	Memorandum of Understanding
MTJ	Matjiesfontein
MTSF	Medium-Term Strategic Framework
NASA	National Aeronautics and Space Administration
NDP	National Development Plan
NKP	National Key Point
NRF	National Research Foundation
NRSC	National Remote Sensing Centre
NSP	National Space Programme
NSW	National Science Week
PFMA	Public Finance Management Act, (Act No. 1 of 1999), (as amended by Act No. 29 of 1999)
R&D	Research and Development
Roscosmos	Russian State Space Corporation
RSSC	Remote Sensing Satellite Constellation
SAAF	South African Air Force
SAASTA	South Africa Agency for Science and Technology Advancement
SANSA	South African National Space Agency
SAWS	South African Weather Service
SCM	Supply Chain Management
SE	Space Engineering
SIH	Space Infrastructure Hub
SME	Small to Medium Enterprise
SO	Space Operations
SS	Space Science
SSGI	Space Science and Geospatial Institute
STEM	Science, Technology, Engineering and Mathematics
STI	Science, Technology and Innovation
SU	Stellenbosch University
SuperDARN	Super Dual Auroral Radar Network
UK	United Kingdom
UKNSA	UK National Space Academy
UKZN	University of KwaZulu-Natal
USA	United States of America
US	University of Stellenboch
ZINGSA	Zimbabwe National Geospatial and Space Agency

3. Foreword by the Chairperson

On behalf of the SANSA Board, it gives me immense pleasure to present the 2023/24 Annual Report. I remain immensely proud to be leading the Board of the South African National Space Agency (SANSA) and thank the members of the Board, acknowledging and valuing their continued support and expertise.

During the fiscal year, the Board embarked on Strategic Repositioning SANSA, by initiating the "Ramp Up Phase" which essentially is about growing the Space Agency's capabilities and infrastructure to serve its mandate of delivering space solutions and technologies to better serve the nation, while tackling the triple challenges of poverty, unemployment and inequality. This was an opportune time as the 2024/25 financial year is the end of the current five-Year Strategy with the "Ramp Up Phase" Strategy already charting a new trajectory for the 2025–2030 SANSA Strategy.

The SANSA "Ramp Up Phase" Strategy and its five Flagship Programmes will move South Africa from the current position of being an Emerging Space Nation to an Intermediate Space Nation with its own Space Assets and Space Infrastructure. A critical achievement in the 2023/24 financial year is the commencement of the implementation of the Space Infrastructure Hub Programme (SIP 22), which saw the budget of over R481million allocated to this programme and has enabled SANSA to restart of the EO-SAT 1 Manufacturing project, through the placement of the contract to Denel SOC for the completion of the EO-SAT 1 project, thanks to the effort and support from the shareholder, Dr Blade Nzimande, the Minister of Science and Innovation.

SANSA having undergone an independent Institutional Review by a panel of experts in 2021, which made 18 recommendations that will reposition SANSA to fulfil its mandate, has implemented 15 of the 18 recommendations of the Institutional Review. The remaining three recommendations are being implemented with partner institutions and we hope to complete the implementation of these remaining recommendations in the 2024/25 financial year.

The implementation of SANSA's New Business Model, which is aimed at ensuring the breaking down of silos and foster efficient use of SANSA Skills across the whole organisation, is progressing well and the implementation of the New Business Model will be completed in 2025 financial year.

I continue to express gratitude to the Minister of the Department of Science and Innovation Dr Blade Nzimande, the SANSA Board, management and staff (SANSANites) for their patience and support in bringing to realisation the vision of an integrated National Space Capability that responds to socio-economic challenges in Africa. Lets be the Agency to drive the Africa Vision 2063 from the Southern Tip of Africa.

Mr Patrick Ndlovu
SANSA Board Chairperson
31 July 2024

4. Chief Executive Officer's Overview

Dear Valued Partners, Customers and Stakeholders,

It has been a remarkable journey during my first year as CEO of the South African National Space Agency (SANSA) and I am grateful for your support in the executing of my role at the Agency.

I am happy to share with you the milestones achieved over the fiscal year and the vision for SANSA into the exciting future of Space for Impact.

During the year under review, SANSA concluded with 15 out of 17 performance targets being met – resulting in an 88% overall achievement of the planned annual targets.

Financially, the revenue growth was substantial with the acquisition of some of the Space Infrastructure Hub (SIH) being acquired within the last quarter of the year. This comes after lengthy discussions, motivations and planning for the SIH that endorses the faith government places on SANSA to make a meaningful contribution to the economy and lives of our citizens.

Our products and services have expanded and increased the client base, however, more needs to be done to ensure it is sustainable into the future as we acknowledge the changes to technology and customer requirements that is resulting from artificial intelligence and associated technological advancements.

This will form part of navigating the challenges and seizing of opportunities we foresee as the Space Agency strives to cement South Africa as a respected and impactful space nation.

Our global support in space remains an important legacy from which to build and lead on the continent. Partnerships locally and abroad will be supported and enriched as the country occupies numerous global committees that provide growth opportunities in space science and technology.

We remain committed to innovate, adapt and stay true to the mandate of SANSA as we persevere in delivering even better against the performance targets laid out in the 2024/25 Annual Performance Plan for SANSA.

Our focus remains on creating value for all stakeholders and citizens through the development and sharing of new knowledge on space and Earth, developing human capital, products and services, growing the local space sector and leaving a legacy of impact in all we do.

Together, the SANSA Board, DSI and employees have worked to create an ecosystem where space innovation is supported to make a valuable contribution to all stakeholders and I express my gratitude and appreciation for the aligned effort.

Thank you to our partners and stakeholders for being an integral part of our journey. As we journey into the future of space for South Africa, I look forward to strengthening these relationshsips for greater impact.

Mr Humbulani Mudau
Chief Executive Officer
31 July 2024

5. Statement of Responsibility and Confirmation of Accuracy of the **Annual Report**

To the best of our knowledge and belief, we confirm the following:

All information and amounts disclosed in the Annual Report are consistent with the SANSA 2023/24 Annual Financial Statements audited by A2A Kopano Incorporated.

The Annual Report is complete, accurate, free from any omissions.

The Annual Report has been prepared in accordance with the guidelines on the Annual Report as issued by National Treasury.

The Annual Financial Statements (Part F) have been prepared in accordance with the South African Generally Recognised Accounting Practice (GRAP) standards applicable to the public entity.

The Accounting Authority is responsible for the preparation of the Annual Financial Statements and for the judgements made in this information.

The Accounting Authority is responsible for establishing and implementing a system of internal control which has been designed to provide reasonable assurance as to the integrity and reliability of the performance information, the human resources information and the Annual Financial Statements.
The external auditors are engaged to express an independent opinion on the Annual Financial Statements.

In our opinion, the Annual Report fairly reflects the operations, the performance information, the human resources information and the financial affairs of the entity for the financial year ended 31 March 2024.

Yours faithfully,

Mr Humbulani Mudau
Chief Executive Officer
31 July 2024

Mr Patrick Ndlovu
Chairperson of the Board
31 July 2024

6. Strategic Overview

6.1 SANSA Vision and Mission

The vision and mission of the entity play a crucial role in SANSA's commitment to repositioning the South African space programme and ensuring its integral role in the socioeconomic-environmental development of the continent.

Vision

SANSA's vision statement for repositioning the South African space programme:

"An integrated National Space Capability that responds to socio-economic challenges in Africa by 2030."

Mission

SANSA's mission statement relating to the South African space programme:

"To provide leadership in unlocking the potential of Space for the advancement and benefit of humanity."

6.2 SANSA Values

SANSA's activities were underpinned by the following values:

Figure 1: SANSA's values

In alignment with SANSA's values, the Agency's management and employees, have jointly defined the following Employee Value Proposition:

> *"At SANSA, we create opportunities to learn and grow, providing a world-class service to our stakeholders and clients through individuals who are energetic, enthusiastic, and passionate about what we do. We promote a healthy work-life balance, and provide equitable remuneration and competitive benefits to build a motivated workforce that contributes to the long-term good of society."*

6.3 SANSA Contribution: Sustainability Pillars

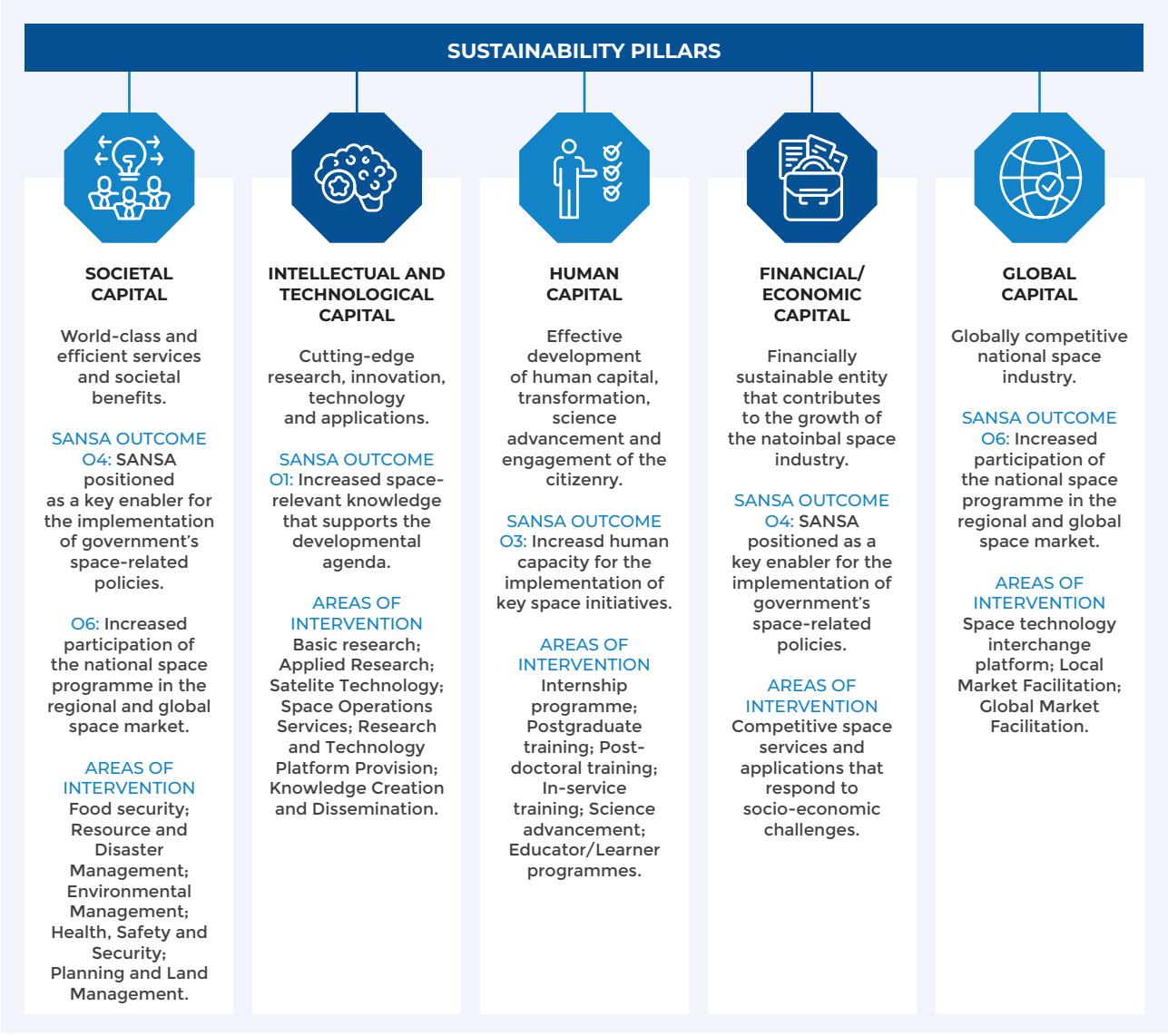


Figure 2: SANSA's contribution towards the sustainability pillars

SANSA's strategic initiatives, including those relating to strategic partnerships and collaborations and ensuring an improved organisational culture, seek to enhance business efficiencies in a manner that will result in growth and sustainability for the entity and South Africa's broader space sector.

7. Legislative and Other Mandates

7.1 Legislative and Other Mandates

Established in accordance with the Public Finance Management Act (PFMA), No. 1 of 1999, SANSA operates as a Schedule 3A Public Entity under the auspices of the Department of Science and Innovation (DSI).

The Agency's legislative mandate is premised on two key Acts namely: the **Space Affairs Act (Act No. 84 of 1993) and the South African National Space Agency (SANSA) Act (Act No. 36 of 2008)**. The former is an instrument of the Department of Trade, Industry and Competition (**the dtic**) which provides a regulatory and policy framework for the South African Space Programme, while the SANSA Act which is governed by the DSI, enabled the establishment of SANSA as an implementing agency for the South African Space Programme. Key legislative and other mandates relevant to SANSA include the following:

Public Finance Management Act (PFMA) (Act No. 1 of 1999) establishes the framework for overseeing the utilisation of public funds by public entities. As a Schedule 3A National Public Entity, SANSA is obligated to adhere to the requirements and principles of the PFMA.

Science and Technology Laws Amendment Act (Act No. 9 of 2020) amends the establishment legislation of several DSI public entities including SANSA with the intention of streamlining governance processes of the accounting authorities of public entities.

The **National Key Point Act (Act No. 102 of 1980)** provides for the declaration and protection of sites of national strategic importance against sabotage, as determined by the Minister of Police in 2004, and the Minister of Defence. The Act provides for the protection of the Hartebeesthoek and Hermanus facilities which have both been declared as National Key Points (NKP).

White Paper for Science, Technology, and Innovation (STI) (2019) focuses on increasing the impact of STI on the country's national priorities, including economic growth, strategic partnerships, and the development of an innovation culture with a whole-of-society approach through a Government Innovation Compact.

Decadal Plan on Science, Technology, and Innovation (STI) (2022) serves as the implementation plan for the 2019 White Paper. SANSA's efforts and investment focused on building and maintaining a competitive national space infrastructure that fosters R&D, delivery of products and services, industry development and strengthening international partnerships, will be positioned to support the Decadal Plan priorities. In addition to its focus on research, capacity building and other activities aimed at addressing the Decadal Plan's three Societal Grand Challenges, SANSA continues to prioritise international cooperation and partnership activities aligned with the STI Decadal Plan priorities for expanded and strategic internationalisation.

National Development Plan (NDP), Vision 2030 is aimed at eliminating poverty and reducing inequality by 2030. It comprises 13 chapters, inclusive of a set of objectives and actions for each, which details how government intends to respond on different fronts to the manifold challenges facing South Africa.

South African Economic Reconstruction and Recovery Plan (ERRP) (2020) was developed to address the resultant economic crisis of the Coronavirus Disease 2019 (Covid-19) pandemic. SANSA intends to continue to contribute to the ERRP by providing solutions through the development and distribution of space products and applications that respond to the specific challenges related to the pandemic and other broader socio-economic challenges.

7.2 Policy Mandate

The primary objectives of the National Space Policy are to:

- 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,
- Promote capacity-building initiatives, both as a means towards effective participation in the space arena, as well as to develop capacity in science and technology, in space and in general,
- Facilitate the provision of appropriate and adequate space capabilities to support South Africa's domestic and foreign policy objectives,
- Foster a robust science and technology base in research institutions and the higher education sector,
- 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,
- 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,
- Promote improved cooperation with other nations in the mutually beneficial peaceful uses of outer space, and
- Promote greater awareness and appreciation, at all levels of South African society, of the relevance and benefits of space science and technology.

SANSA is resolute in its pursuit to take a prominent position in the National Space Programme and gain a larger market share globally. By promoting innovation and industrial competitiveness, SANSA aims to drive the successful execution of the National Space Policy. Through the utilisation of space science and technology, SANSA will develop applications that cater to the provision of geospatial, telecommunication, timing, and positioning products and services, thereby contributing to the establishment of a knowledge economy.

8. Organisational Structure

Figure 3 reflects the SANSA organisational structure as outlined in the Revised 2020–2025 Strategic Plan:

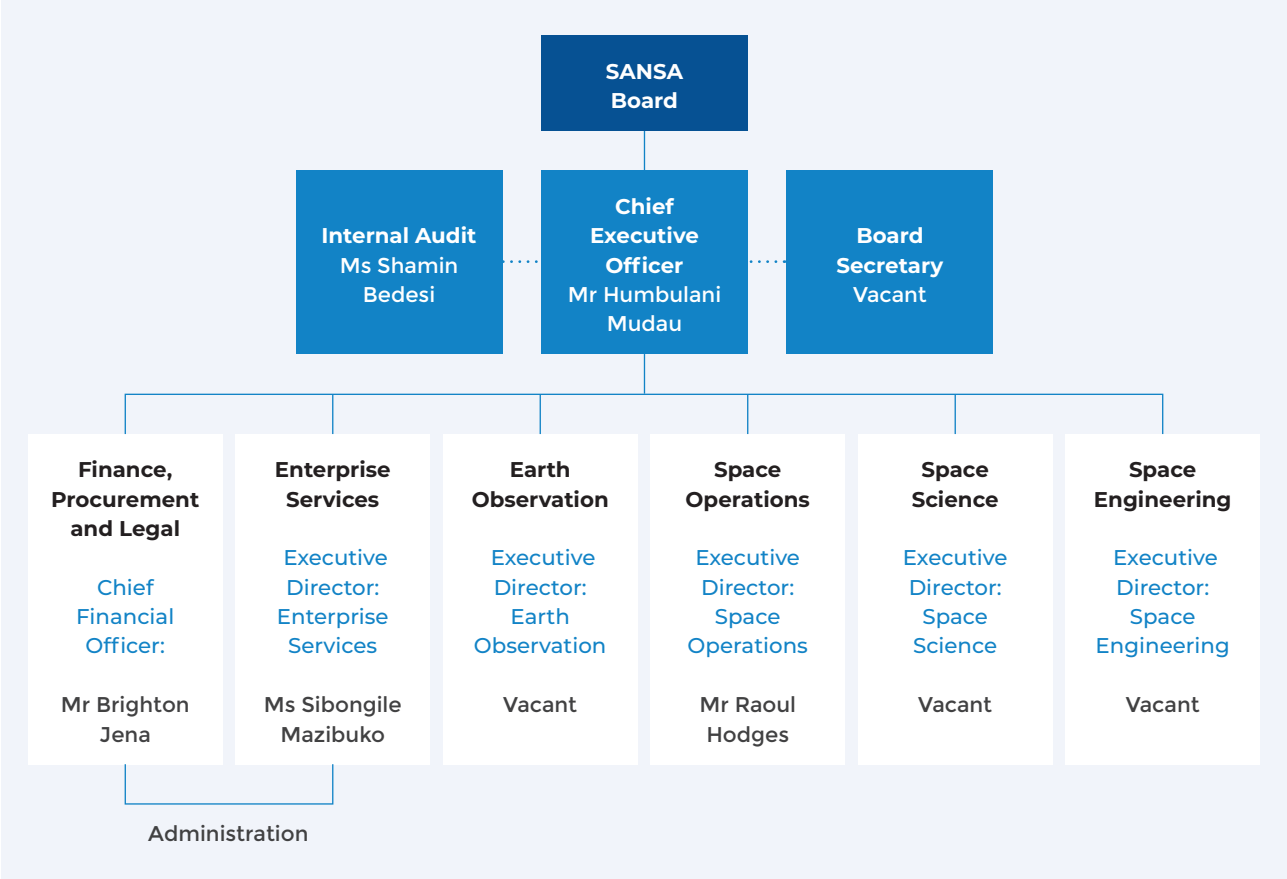


Figure 3: SANSA's organisational structure

PART B

PERFORMANCE INFORMATION

9. Auditor's Report: **Predetermined Objectives**

The External Auditors perform the necessary audit procedures on the Agency's performance information to provide reasonable assurance in the form of an audit conclusion. The audit conclusion on the performance against predetermined objectives is included in the report to management, with material findings being reported under the Predetermined Objectives heading of the report on other legal and regulatory requirements section of the auditor's report.

Refer to pages 115 to 120 of the Auditor's Report, published as Part F: Financial Information.

10. Situational Analysis

10.1 Integrated Impact Report

One year of operational Space Weather

SANSAnites celebrate one year of operational space weather

SANSA celebrated one year of operational space weather on 03 November 2023. The space weather team of eight forecasters, led by Dr Mpho Tshisaphungo, delivered daily space weather forecasts and issued 315 space weather warnings from 03 November 2022 until 31 March 2024. The three new Space Weather forecasters who joined SANSA on 01 August 2022 are fully trained and competent to deliver on SANSA's mandate after receiving ten months of intensive in-house training. The training included a trip to the United Kingdom (UK) Meteorological (Met) Office in Exeter, UK, to work alongside Met Office Space Weather Operations Centre (MOSWOC) forecasters for two weeks, providing operational experience for the forecasters.

During the launch of the Space Weather Centre in 2022, Dr Blade Nzimande, Minister of Higher Education, Science and Innovation highlighted the importance of strengthening relationships with end-users and maximising the use of space products and services. Through strategic and targeted stakeholder engagements, the SANSA Space Weather Centre significantly increased its partnerships, training and awareness footprint. The impact of these efforts is illustrated by the ground-breaking aviation programme, hosted by the Air Traffic and Navigation Services (ATNS) SOC Ltd Aviation Training Academy (ATA) in partnership with SANSA, to understand and mitigate the effects of solar activity. The five-day training programme titled, *An Introduction to Space Weather for Aviation Personnel*, was officially launched on 18 March 2024 at the world-renowned ATA.

The need for space weather forecasts is increasing as solar maximum ramps up and is expected to reach its peak in 2025.

Building a legacy of impact in Matjiesfontein (MTJ)

Locals who assisted in the Geotech survey. Left: Hendrik Baadjies; right: Raymond Carolus

SANSA believes that the MTJ project will create a legacy of impact both for the organisation and the community. The Agency aims to ensure that community members extract as much value as possible from the project. Hendrik Baadjies and Raymond Carolus (pictured) were the first MTJ residents to get involved in the MTJ project through the company responsible for geotechnical investigations at the site. When interviewed, the pair expressed gratitude and hope for a better future for the community as a result of the project.

International Prestige: SANSA attracts Top International Minds

SANSA continues to attract international partnerships and visitors through the Space Science (SS) Programme, thereby increasing mutual benefit, learning opportunities and international prestige.

SANSA hosted Dr Donald Danskin a renowned space weather specialist from Canada in early 2024, who collaborated with the SANSA space weather team on further developing products and services and participated in efforts to create public awareness of space weather and the Space Weather Centre.

The Agency also hosted Dr Michal Janosek from the Czech Technical University in Prague, Czech Republic who has been working with the Applied Science and Technology (AST) group on various cutting-edge magnetic technology innovations. SANSA Hermanus' unique magnetically clean facility enables the AST group to push the boundaries of the known applications of magnetism.

Dr Nigussie Giday from the Space Science and Geospatial Institute (SSGI), Ethiopia visited SANSA from 23 October to 05 November 2023 to participate in a hands-on training programme on magnetometer installations, operation, and data logging. The training formed part of a joint project called the Pan-African Magnetometer Network. SANSA will deploy a magnetometer and a Global Navigation Satellite System (GNSS) receiver at ENTOTO, one of SSGI's research facilities located at the outskirts of Addis Ababa at the magnetic equator and will ensure an increase of important magnetic data for the African continent.

Other international collaborators include Dr Yuichi Otsuka and MSc student Sota Kato from Japan; Dr Jurgen Matzka and Marcos da Silva from Germany; Dr Prateek Mayank from India; Dr Daniel Okoh from Nigeria; Dr Michelle Dougherty a renowned South African academic living in the UK; Rowan Walpose and Mark Moldwin from the United States of America (USA) and five researchers from the Polar Research Institute of China.

International students who chose SANSA as an academic institution of choice to improve their space science knowledge over the past year include Muneeza Ali from Pakistan; Shai Tolendando from the University of Michigan, USA; Kevin Wallace from the University of Michigan, USA; Victoria Oluwaseun Fatoye from Nigeria and Nahum Ndunge Maundu from Kenya.

Dr Donald Danskin giving a public lecture at the SANSA Space Weather Centre.

Dr Michelle Dougherty giving a public lecture during her visit to SANSA Hermanus

Proudly South African – the High Tech Radar at the tip of the world

South Africa owns and operates the most advanced digital version of a series of radars, known as the Super Dual Auroral Radar Network (SuperDARN). This international system of 35 cooperating high frequency (HF) radars run by nine countries in both hemispheres are located mainly in the high-latitude auroral zones. South Africa's advanced digital version of SuperDARN radar is situated at the South African National Antarctic Programme (SANAE IV), in Antarctica, and is the only SuperDARN radar operated by an African country. Although each radar is a research tool in its own right, it is the combination of all radars together as a global network where SuperDARN's real scientific power resides.

The radar network offers an effective low-cost window into the near-Earth space environment as well as excellent engineering development and scientific research opportunities. The value SuperDARN offers is increasing in that the network is expanding, at a rate of about one new radar every year, to include PolarDARN and StormDARN radars at higher and lower latitudes, respectively. The project seeks to understand the complex processes that start on the Sun, propagate towards Earth on the solar wind, impact on the Earth's magnetosphere, and in turn cause geomagnetic storms which have multiple impacts on the upper atmosphere and consequently human technologies on the ground. This system is called space weather.

Overwintering engineers from SANSA in the harsh Antarctic conditions

South Africa joined the SuperDARN network in 1997, becoming the second country to successfully deploy an HF radar in Antarctica after the UK; beating out the deployment of the Japanese radar in 1998 by almost a full year. This analogue version of the radar operated for over 15 years and saw several operational improvements and upgrades to its antenna systems completed during this period. In 2012 the recently established SANSA undertook a massive upgrade of the radar to a state-of-the-art digital HF radar. This was a big leap away from the traditional analogue approach. South Africa established itself as a key role player within the SuperDARN community often outperforming its collaborators in publications and in students who graduated and trained through its human capital development initiatives. South Africa has hosted the annual SuperDARN workshop in 1997, 2010, 2021 and, most recently, in 2023, where SuperDARN Researchers and Principal Investigators gather to share achievements and plan for operations.

During the 2023/24 reporting period, after a prolonged period of R&D , the digital HF radar underwent a further upgrade to enhance the platform's capability. These upgrades included the integration of an additional, secondary antenna array for the radar to capture angle of arrival data; an extra stereo data channel, which allows the radar to conduct two experiments at the same time as well as a new, Python based, radar operating system (ROS) to replace the outdated ROS that had been adapted from the old analogue radar. These upgrades were completed in February 2024 by the combined SANAE 62nd and 63rd overwintering team members. These upgrades have revitalised the digital HF radar platform and have unlocked additional research and scientific opportunities. SANSA operates a programme of multiple projects, in space physics and engineering, which study natural phenomena or develop techniques and technologies centred on the South African HF radar located at SANAE IV in Antarctica. In doing so, SANSA will meet its international obligations to the SuperDARN consortium as well as Antarctica, train staff and students, engage the public and learners, and enhance South Africa's research reputation and standing through publications and scientific/engineering presentations. The ongoing operational costs for the digital HF radar is currently being covered mostly by a grant from the DSI.

SANSA hosts Brazil, Russia, India, China, and South Africa (BRICS) Heads of Space Agencies

The representatives from the BRICS Space Agencies during their meeting at the SANSA Space Weather Center in Hermanus for the BRICS Summit hosted by South Africa

SANSA hosted the heads of BRICS Space Agencies during the BRICS Summit 2023 at the SANSA Space Weather Centre in Hermanus on 24 July 2023. Representatives from all five current members attended the meetings and contributed to the shared activities. SANSA also met with the Russian and Chinese delegations for separate bilateral meetings and laid the groundwork for future collaborations. SANSA hosted the BRICS delegation on a tour of Overberg Test Range and Houwteq Assembly Integration and Testing (AIT) facility.

Dr Lee-Anne McKinnell Posthumous Award

Dr Lee-Anne McKinnell was posthumously awarded for her impact contribution to science and innovation

The life and immense contribution of Dr Lee-Anne McKinnell to SANSA and the Space Industry was celebrated during the South African Science Forum on Friday 8 December 2023 when she was given a posthumous Science Diplomacy award at the closing ceremony. Dr McKinnell, who was the Managing Director of SANSA's Space Science Programme, passed away on Saturday 19 August 2023 after a short illness. She served as the Managing Director for 12 years and during this time made a tremendous contribution to the space science, skills development, and science engagement sectors.

The Space Weather Project was her crowning achievement that produced a space weather capability for the country in three years, on time, and within budget. Dr McKinnell was a space weather advocate and custodian of the unique SANSA Hermanus facility which is now a NKP, thanks to her continued efforts to protect and enhance the value of the facility.

Dr McKinnell served on numerous international committees and working groups, including as the Space Weather co-chair for the World Meteorological Organization, ensuring Africa's interests are maintained in the field of space science and related technology. She also received a long list of awards for her contribution to the Space Science field.

10.2 SANSA Strategic Initiatives

Space Infrastructure Hub (SIH)

SANSA received the final assessment report for the SIH submission at the end of October 2022. The Agency was required to address some gaps identified in the report by the Budget Facility for Infrastructure (BFI) to meet the condition of the provisional recommendation for funding by 31 March 2023. This included the appointment of a Cost Benefit Analysis (CBA) specialist. In line with SANSA's transformation priorities and supplier development targets, a CBA service provider, Urban Econ was appointed by 31 March 2023. The CBA concluded at the end of July 2023 and the report was submitted by SANSA to the BFI as per the prescribed deadline.

The CBA results indicated that the SIH project will result in increased economic activity in the local economy through, job creation, and improvements across many sectors in terms of improved planning, cost savings, and improved efficiency. The revenue for the SIH will also contribute to growing the local government's tax base. SANSA received acknowledgement of receipt from BFI on the CBA report. In January 2024 the DSI provided a correspondence to SANSA confirming the funding allocation of R481 million designated for the implementation of various projects essential for the advancement of the SIH.

MTJ Project

SANSA is moving forward with the establishment phase of the MTJ deep space project. There has been significant progress made on the completion of the tender process to appoint a design engineering company, a crucial step in the detailed planning and execution of the project.

Some of the current activities that are already underway include constructing access roads and installing security fencing, laying the groundwork for future construction and operations. Weekly engagements between SANSA and the National Aeronautics and Space Administration (NASA) team began in late 2023 to ensure that needs and expectations are understood and managed. The teams continue to work on the preparations for a Lunar Exploration Ground Segment (LEGS) Systems Concept Review (SCR) which will be hosted by NASA. This review will be with all the LEGS stations (White Sands, The USA, MTJ South Africa and (provisionally) Geraldton Australia.

SANSA continues to keep the DSI appraised with the developments on the project through the provision of formal quarterly progress reports.

SANSA Institutional Review Recommendations

An Institutional evaluation of SANSA was conducted to determine the relevance, efficiency and effectiveness of SANSA in 2022. The panel acknowledged that while significant progress has been made over the first ten years, SANSA has not been fully successful in putting into place the infrastructure and processes that lay the foundation for future growth and especially economic impact on the space sector in South Africa. The review included the evaluation of the progress made by the Agency since its inception.

The Institutional Review final report identified 18 findings with recommendations. The final report also recommended key strategic initiatives for SANSA to embark on in order to serve as the cornerstone for fostering future growth and enhancing the Agency's economic impact on the space sector in South Africa.

The strategic initiatives include the development of a 30-year National Space Programme (NSP), the identification of space champions, a SANSA flagship programme, and the development of a national telecommunications satellite strategy. SANSA has commenced efforts towards the achievement of these initiatives and has included specific timelines for the implementation of the key strategic initiatives as well as targets in the Annual Performance Plan for the 2024/25 financial year.

EO-Sat1

In 2022, the Director General (DG) of the DSI requested SANSA to submit a proposal for the completion of the Earth Observation Satelite (EO-Sat1) project. A proposal for the completion of the Earth Observation Satellite (EO-Sat1) Programme was submitted by SANSA to the DSI in the first quarter of the 2022/23 financial year. DSI confirmed receipt of the proposal in July 2022 and indicated support for the proposed option, after which the DSI further requested the submission of an EO-Sat1 Project Implementation Plan that includes Transformation and Human Capital Development (HCD) prior to receiving approval to proceed with the proposed option. The project implementation plan was submitted to the DSI for approval to complete the project.

On 15 August 2023, SANSA received a letter (Annexure A) from the DSI indicating that the DSI has reviewed the EO-Sat1 Project Implementation Plan and committed to fund the completion of EO-Sat1 for R200 million for the satellite segment and R115 million for the launch segment. On 23 January 2024, the SANSA Board considered and approved the commencement of the EO-Sat1 project.

11. Overview of Public Entity's Performance

11.1 Service Delivery Environment

All of SANSA's work and strategic initiatives are founded on and guided by the Agency's mandate, mission and vision of an integrated National Space Capability that addresses socio-economic challenges in Africa by 2030. During the 2023/24 financial year, the Agency remained committed to spearheading strategic initiatives aimed at achieving its desired outcomes and creating a conducive environment for the growth and inclusivity of the local space sector.

The Agency's developmental agenda aimed at transforming the space industry was aligned to the policy imperatives of government, and priorities of the DSI. The implementation of planned initiatives during the reporting period would not have been feasible without the entity having taken due consideration of external factors impacting its service delivery.

Key among these was an economic environment characterised by low levels of growth which was exacerbated by perpetually competing priorities of government that reduced the availability of funding streams for SANSA and other similar public entities. The 2023 Adjusted Estimates of National Expenditure (AENE) from National Treasury contained budget cuts for government departments including the DSI. Subsequently, the DSI issued SANSA with an adjusted budget and advised the Agency to revise (where applicable) the 2020-2025 Strategic Plan (SP) and 2023/24 Annual Performance Plan (APP) in line with the Department of Planning, Monitoring and Evaluation (DPME) Revised Framework for SPs and APPs. SANSA revised it's 2023/24 APP in line with the National Treasury's 2023 AENE, SANSA's approved amended budget and DSI's recommendation.

11.2 Organisational Environment

SANSA's delivery during the reporting period was driven by the following organisational programmes in accordance with the entity's five-year strategy: (i) Programme 1: Administration; (ii) Programme 2: Earth Observation; (iii) Programme 3: Space Science; (iv) Programme 4: Space Operations; and (v) Programme 5: Space Engineering.

The Agency's priorities during the 2023/24 financial year were informed by the following key objectives as provided in the SANSA Act:

- Promote the peaceful use of outer space,
- Support the creation of an environment conducive to industrial development in space technology,
- Foster research in space science, communications, navigation, and space physics,
- Advance scientific, engineering, and technological competencies and capabilities through HCD outreach programmes and infrastructure development, and
- Foster international cooperation in space-related activities.

The Agency retained a reserved stance towards the establishment of its performance targets for the 2023/24 financial year, aligning with constraints concerning the availability of sufficient financial resources.

During the 2023/24 financial year SANSA's performance was measured against the 17 performance indicators outlined in the approved APP and the entity concluded the year with 15 of these having been met - resulting in an 88% overall achievement of the planned annual targets.

11.3 Key Policy Developments and Legislative Changes

The institutional policies and strategies, as reflected in the revised 2020-2025 Strategic Plan, remained relevant for the 2023/24 financial year. There has been no changes to policy and legislative requirements.

12. Overview of Performance

12.1 Strategic Outcomes

This Annual Report for the 2023/24 performance period reflects SANSA's progress towards achieving the following five strategic outcomes as outlined in the Revised 2020–2025 SP:

Table 1: SANSA strategic outcomes, outcome indicators and five-year targets

Outcome	Outcome Indicator	Baseline	Five-Year Target (March 2025)
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 3 for South African researchers in direct space-related areas
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%
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
	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
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
	O4.2. External audit outcome	Unqualified audit opinion with material findings	Achieve and maintain an unqualified audit opinion with no material findings
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%

Outcome	Outcome Indicator	Baseline	Five-Year Target (March 2025)
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 potential new revenue streams from products and applications to be developed once the market analysis has been completed)
	O6.2. Percentage growth in products and services provided to the market	New indicator	Lower target: 20% Upper target: 40%

12.2 Progress Towards Achievement of Institutional Impact and Strategic Outcomes

The table that follows provides a summary of the progress made by SANSA as of 31 March 2023 towards achieving the nine outcome indicators reflected in the entity's 2020–2025 Revised Strategic Plan (SP).

Table 2: SANSA strategic outcomes, outcome indicators and 5-year targets

Outcome Indicator	2024/25 Target	Actual Achievement as at 31 March 2024
O1.1. Average research publication rate for South African researchers in direct space-related areas	Average annual research publication rate of 3 for South African researchers in direct space-related areas	Total number of publications: 135
O2.1. Average operational expenditure spend on SMEs	Lower target: 20%; Desired target: 30%; Upper target: 40%	2020/21 – 51% 2021/22 – 20% 2023/24 – 43% 2023/24 – 45% (Average: 39.75%)
O3.1. Percentage of graduated students to registered students in postgraduate space-related fields nationally	Up to 20% of all registered (in space-related fields) postgraduate students graduate with space-related degrees	390 students and interns have been supported
O3.2. Percentage students and interns mentored by SANSA absorbed by the formal labour market	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.
O4.1. Percentage 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%
O4.2. External audit outcome	Achieve and maintain an unqualified audit opinion with no material findings	Unqualified external audit opinion with no material findings for the 2023/24 financial year

Outcome Indicator	2024/25 Target	Actual Achievement as at 31 March 2024
O5.1. Percentage growth in the Rand value of the national infrastructure asset base	Lower target: 25%; Upper target: 50%	6%
O6.1. Percentage growth in revenue generated from space products and applications	Lower Target: 5%; Upper Target: 8%	7%
O6.2. Percentage growth in products and services provided to the market	Lower target: 20%; Upper target: 40%	80%

Adequate advancements have been achieved thus far; nonetheless, SANSA is persisting in its actions to establish measures aimed at averting the failure to reach targets by the end of the ongoing strategic term.

These include:

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

12.3 Summary of 2023/24 Achievement of Strategic Outputs

An overview of the Agency's progress towards achieving its planned annual targets for the 2023/24 financial year is depicted in figure 4. A total of 17 performance indicators were due for delivery and reporting during the period under review.

SANSA is at an 88% performance achievement with the following targets having remained unmet at year-end:

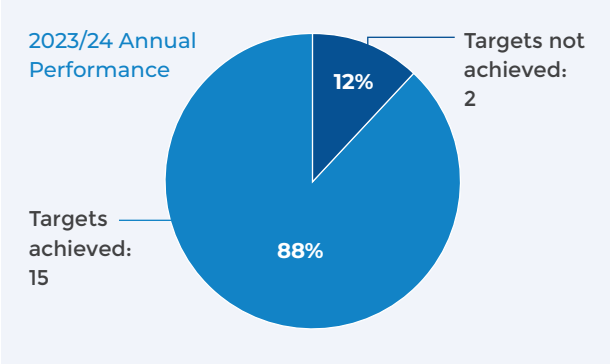


Figure 4: Summary of annual performance

(i) O5.1.2. Percentage progress towards a developed Matjiesfontein deep space facility

Significant progress has been made in the implementation of the three-year MTJ project. Challenges in the initial stages have resulted in a slight delay in the implementation of some aspects of the project. The 2024/25 financial year will see the ramp-up of the activities and subsequently the achievement of milestones within the project.

(ii) O5.1.3. Percentage progress towards an upgraded AIT facility

The project kick-off meeting was held in September 2023. Procurement activities were initiated and then processed once the SIH contract from the DSI was awarded to SANSA in mid-March 2024. The 2024/25 financial year will see the ramp-up of the activities and subsequently the achievement of milestones within the project.

12.4 Consolidated Performance Information

Table 3: Consolidated annual performance: 2023/24 financial year

Outcome	Output	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Annual Target 2023/24	Actual Achievement 2023/24	Variance Against 2023/24 Target
O1 Increased – space relevant knowledge that supports the developmental agenda.	O1.1.1. National research productivity score for supported R&D	1 805.27	1 660.74	1 500	1 616.5	+ 116.5
O2 Stimulated and growing, inclusive space sector.	O2.1.1. Percentage operational expenditure spend on SMEs	20%	43%	30%	45%	+ 15%
	O2.2.1. The total contract expenditure to the broad space-related industry for core space projects	R13.1 million	R61.8 million	R32 million	R34.3 million	+ R2.3 million
O3 Increased human capacity for the implementation of key space initiatives.	O3.1.1. Number of youth directly engaged on space-related sciences	30 320	54 351	45 000	73 426	+ 28 426
	O3.2.1. Number of students and interns supported for formalised training	86	73	72	90	+ 18
O4 SANSA positioned as a key enabler for the implementation of government's space-related policies.	O4.1.1. Number of initiatives to transform SANSA into a high-performing Agency	Skills Audit and Workplace Plan not concluded	2 (Change Management Process; Online Performance Management System)	3	3	-

Outcome	Output	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Annual Target 2023/24	Actual Achievement 2023/24	Variance Against 2023/24 Target
O4 SANSA positioned as a key enabler for the implementation of government's space-related policies.	O4.2.1. Percentage implementation of Audit Action Plan	-	69%	95%	100%	+ 5%
	O4.3.1. Number of joint initiatives undertaken through formal international partnerships	21	18	12	19	+ 7
	O4.3.2. Number of joint initiatives undertaken through formal African partnerships	11	14	12	15	+ 3
	O4.3.3. Number of joint initiatives undertaken through formal national partnerships	22	22	15	17	+ 2
	O4.4.1. Number of awareness and training interventions to key users of space-related products and services	20	27	10	22	+ 12
	O4.5.1. Number of additional government departments and public entities that are using space products and services	Indicator Reframed	15	12	14	+ 2

Outcome	Output	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Annual Target 2023/24	Actual Achievement 2023/24	Variance Against 2023/24 Target
O5 Enabling infrastructure developed and maintained to support the space sector value chain.	O5.1.1. Development of the SIH	New Indicator	Contracting and acquisition of the SIH phase I mission system not concluded by year-end	5% of SIH Phase 1 project plan executed	7%	+ 2%
	O5.1.2. Percentage progress towards a developed Matjiesfontein deep space facility	New Indicator	100%	35% of Matjiesfontein Deep Space facility project plan executed	25%	- 10%
	O5.1.3. Percentage progress towards an upgraded Assembly, Integration, and Testing (AIT) Facility	Revised Project schedule and implementation plan	0%	8% of upgraded AIT facility project plan executed	0%	- 8%
O6 Increased participation of the National Space Programme in the regional and global space market.	O6.1.1. Number of products and applications	8	9	7	14	+ 7
	O6.2.1. Rand value of total revenue generated from space operations activities	R82.3 million	R105.2 million	R75 million	R149.2 million	+ R74.2 million

13. Performance Information by Programme

13.1 Programme 1: Administration

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 seamless integration and collaboration within the organisation. The focus of the Administration Programme during the reporting period was to ensure the efficient and effective execution of the Agency's mandate, a strong focus on new business development, strategic leadership, effective engagement with key stakeholders, and the impactful communication and promotion of SANSA's activities.

In contributing towards the SANSA impact of *"A sustainable South African space sector that contributes meaningfully to socio-economic development across the African continent"*, the Administration Programme delivers against the following outcomes and five-year targets in the approved SP:

Outcome 2: Stimulated and growing, inclusive space sector; and **Outcome 4:** SANSA positioned as a key enabler for the implementation of government's space-related policies.

Performance Against Outcomes

Outcome 2: Stimulated and growing, inclusive space sector.

SANSA aimed to contribute to Outcome 2 by supporting SMEs in targeted expenditure, spending 45% of SANSA's operational expenditure on SMEs.

Outcome 4: SANSA positioned as a key enabler for the implementation of government's space-related policies.

The programme prioritised three initiatives in the reporting period aimed at transforming SANSA into a high-performing Agency, namely: the implementation of the organisaton's Culture Improvement Plan, the development of the Talent Management Framework, and the development of a Values-Driven Performance Management System. SANSA sought to ensure that previously identified audit findings were resolved through continuous in-year monitoring and implementation of the entity's Audit Action Plan. The entity implemented 100% of the Audit Action Plan.

The strategic positioning of SANSA as a key enabler within the local, African, and global space sector remained a priority and was monitored through the number of joint space-programme initiatives undertaken through partnerships. There were 19 international initiatives: 15 African initiatives, and 17 national initiatives undertaken by SANSA during the reported period.

Outcome 6: Increased participation of the National Space Programme in the regional and global space market

SANSA aimed to contribute to Outcome 6 by generating R75million from space applications and services, this target was exceeded as a result of generating over R149 million.

Programme 1: Performance against 2023/24 Output Indicators and Targets

Table 4: Administration performance: 2023/24 financial year

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations	Mitigation Actions
O2 Stimulated and growing, inclusive space sector.	2.1. Targeted expenditure	2.1.1. Percentage operational expenditure spend on SMEs	20%	43%	30%	45%	+ 15%	The target was exceeded as a result of operational expenditure to SMEs being prioritised.	Not applicable
O4 SANSA re-positioned as a key enabler of government's space – related policies.	4.1. Initiatives to transform SANSA into a high performing Agency	4.1.1. Number of initiatives to transform SANSA into a high-performing Agency	Skills Audit and Workforce Plan not concluded	2 (Change Management Process; Online Performance Management System)	3	3	No deviation	Not applicable	Not applicable
	4.2. Audit actions implemented	4.2.1. Percentage implementation of Audit Action Plan	-	69%	95%	100%	+ 5%	All outstanding external audit findings have been resolved.	Not applicable
	4.3. Joint space programme initiatives undertaken through partnerships	4.3.1. Number of joint initiatives undertaken through formal international partnerships	21	18	12	19	+ 7	The target was exceeded as the programme capitalised on collaboration opportunities with international partners.	Not applicable

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations	Mitigation Actions
O4 SANSA re-positioned as a key enabler of government's space – related policies.	4.3. Joint space programme initiatives undertaken through partnerships	4.3.2. Number of joint initiatives undertaken through formal African partnerships	11	14	12	15	+ 3	The target was exceeded as the programme capitalised on collaboration opportunities with African partners.	Not applicable
		4.3.3. Number of joint initiatives undertaken through formal National partnerships	22	22	15	17	+ 2	The target was exceeded as the programme capitalised on collaboration opportunities with national partners.	Not applicable
O6 Increased participation of the National Space Programme in the regional and global space market	6.2. Revenue generated from space applications and services	6.2.1. Rand value of total revenue generated from space applications and services	R82.3 million	R105.2 million	R75 million	R 149.2 million	+ R74.2 million	Growth in revenue generation as opportunities were capitalized on.	Not applicable

Programme 1: Performance highlights for the 2023/24 Financial Year

Key Partnerships and Engagements

SANSA is party to several national, region, and international partnership agreements at corporate level. The Agency also has programme specific arrangements either through agreements, projects, or contracts.

National Stakeholder Engagements

Group on Earth Observations (GEO) Week and Ministerial Summit

SANSA is proud to have been part of the Local Organising Committee of the GEO Week 2023 that took place in Cape Town, South Africa, from 06 - 10 November 2023. SANSA's Chief Executive Officer, Mr Humbulani Mudau contributed to pertinent engagements during the event and participated in the Ministerial Summit in his capacity as a member of the GEO Executive Committee. SANSA held various significant stakeholder engagements during this period.

National Space Conference

SANSA co-hosted the National Space Conference from 30 August to 02 September 2023 with the National Earth Observation and Space Secretariat and the South African Air Force (SAAF). The conference was supported by the DSI, with the DG Dr Phil Mjwara unveiling a sounding rocket that was developed by the University of KwaZulu-Natal (UKZN).

National Science Forum

SANSA participated and exhibited at the National Science Forum which was hosted by the DSI. The SANSA CEO, Mr Mudau participated in a panel discussion "A game changer for African's space Industry: The African continental free trade and space diplomacy".

The Academy of Science of South Africa (ASSAf)

ASSAf hosted an informative space lecture in partnership with SANSA and the Chinese Embassy in South Africa. In attendance were various stakeholders within the science domain and a large group of learners.

Water Research Commission (WRC)

SANSA and the WRC virtually signed a memorandum of understanding (MoU) which focues on, water management, and implementation of EO water and sanitation sector programmes.

Continental Stakeholder Engagements

The Democratic Replubic of the Congo National Remote Sensing Centre (DRC NRSC/CNT DRC)

SANSA and the CNT DRC signed an MoU during the 2023 GEO-Ministerial Summit in Cape Town in the presence of the South African and DRC Ministers of Science and Innovation. The collaboration between the two agencies will support the implementation of the science and technology MoU between the two countries which seeks to respond to the socio-economic challenges and technology development.

AfriGEO

A delegation supported the AfriGEO Symposium in Namibia through contributing speakers and moderators and the SANSA CEO, was afforded the opportunity to deliver a keynote address during the opening ceremony. SANSA convened a bilateral meeting with the Namibia Ministry of Higher Education, Technology, and Innovation to reflect on historic collaborations in space between the two countries on the sidelines of this Symposium.

Ethiopian Space Science and Geospatial Institute

SANSA visited Ethiopia as part of a DSI delegation that supported the Ethiopia and South Africa Science and Technology Joint Technical visit. SANSA engaged in relations with the Space Science and Geospatial Institute with actions noted in the South Africa Ethiopia Implementation Plan on Science and Technology.

Africa Mission

SANSA's CEO attended and participated at the 7th Regional Centre for Mapping of Resources for Development (RCMRD) International Conference (RIC2023). Mr Mudau visited the Kenyan Space Agency (KSA) and Uganda Ministry of Science, Technology, and Innovation (MoSTI) in support of the SANSA Africa Engagement Strategy.

New-Space Africa Conference

SANSA attended the New-Space Africa Conference 2023, held in Abidjan, Ivory Coast, from 25 to28 April 2023 where the SANSA CEO provided an update on the activities of SANSA alongside other Heads of African

Space Agencies. During this time various bilateral discussions were held between SANSA and the agency's African counterparts.

AngoTIC 2023 conference

SANSA attended the International Forum of Information and Communication Technologies of Angola, AngoTIC 2023 Conference which was hosted by the Angola Ministry of Telecommunications, Information Technologies, and Social Communication from 12 to 14 June 2023. During the conference, SANSA visited the Angola National Space Programme Management Office (GGPEN)'s space facilities for knowledge sharing and lessons learnt in the areas of communications satellite build.

International Stakeholder Engagement

International Astronautical Congress (IAC)

SANSA hosted several members of the South African Space Industry as exhibitors on a SANSA-sponsored pavilion at the IAC 2023 in Baku. SANSA's CEO participated in a SANSA-initiated and coordinated plenary session, *"Strategic Direction of Emerging Space Nations"*. Furthermore, SANSA held various bilateral discussions during this time, including an introductory meeting with the International Astronautical Federation Executive Director, a meeting that was arranged as part of the SANSA CEO introductions to the international space community.

Russian State Space Corporation (Roscosmos)

Following a bilateral meeting at the IAC 2023 in Baku between SANSA and Roscosmos wherein minutes were signed on implementing actions to advance cooperation discussions, both agencies agreed to formalise relations with a focus on capacitating SANSA's space engineering capabilities. Subsequently, SANSA visited Russia and signed an MoU on space cooperation with a primary focus on capacitating SANSA's space engineering capabilities and supporting the aggressive development of South Africa's indigenous launch capability, including the building of South African launch vehicles by South Africans with Glavkosmos, a subsidiary of Roscosmos.

BRICS Space Cooperation

SANSA hosted the BRICS Remote Sensing Satellite Constellation (RSSC) Joint Committee meeting at SANSA Space Weather Centre from 23–25 July 2023. The meeting was attended by heads of BRICS Space Agencies (AEB; Roscosmos; ISRO; CNSA and SANSA). The agencies gave progress reports on the BRICS RSSC Initiative and approved the development of the BRICS Technology Roadmap and Capabilities documents as proposed by SANSA. The delegation also visited the Overberg Test Range for a tour of the facility.

Space Climate Observatory Agreement (SCO)

On the margins of the GEO Week SANSA met with the French Space Agency CNES on becoming a signatory to the Space Climate Observatory Charter. The SCO is an international initiative to make the best use of satellite data and digital technologies for climate action, through gathering public and private entities involved in Earth Observation (EO). The agreement has been signed by more than 20 global space agencies.

China Manned Space Program (CMSA)

SANSA and CMSA signed a MoU that includes South African participation in China's manned space flight training programme, the Taikonaut training programme, scientific research, micro-gravity physics science, and technology development on the Chinese Space Station the Tiangong.

Aerospace Information Research Institute (AIR) Chinese Academy of Sciences (CAS)

SANSA and AIR CAS signed a MoU on cooperating in the establishment of a Chinese EO satellite receiving ground station at the SANSA Space Operations facility. SANSA and AIR CAS are currently finalising the associated contract for the building of the antennae.

China National Space Administration (CNSA)

SANSA and the CNSA signed a MoU for participation in the international Lunar Research station development.

Communications Protocol and Strategy

SANSA has focussed on enhancing the processes and activities across communications within SANSA through the updating of the SANSA Communications strategy, workflows, policies and social media plans. The SANSA website and intranet have been revamped to accommodate the alignment of the brand voice and visual language. These platforms are critical as most communication takes place on digital platforms.

SANSA participated in numerous local and international events which enabled continued exposure and awareness for SANSA including the exhibition at IAC 2023 in Baku, Azerbaijan. The Agency received many requests for partnerships and sponsorships as a result of it's growing awareness.

This is a good indicator for the positive reputation being established by SANSA among stakeholders.

Media coverage for the financial year was an impressive R37 014 269.66 Advertising Viewing Equivalent (AVE) with print media having R7 747 431.59, broadcast R2 297 547.44 and online R26 969 290.63 respectively.

Circulation increased by 3 828 135 (326%) to 5 001 428 with online coverage increasing by 857 939 736 (533%) to 1 018 787 857. The total combined coverage for 1 April 2023 to 31 March 2024 was 1 042 247 930, up on the previous year of 195 356 255.

Demonstrated are some headlines from the media coverage over the past 12 months.

Social media remains an important platform for generating and sustaining awareness for SANSA. The 2023/24 financial year saw an equivalent of R10 913 236.80 exposure measurement. Below is a wordcloud from the most frequently used keywords in social media posts.

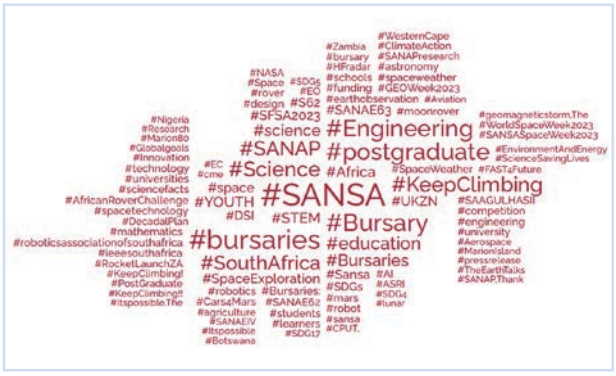


Figure 5: Wordcloud from the most frequently used keywords

Human Resource Management Overview

SANSA successfully launched a new set of organisational values and initiated plans for a Values Activation Campaign in 2024 to embed these values across the Agency.

Significant progress was made in talent management, including the appointment of a supplier for a comprehensive Skills Audit and finalisation of nominations for the Talent Pool. Mentoring and coaching initiatives are planned for talent pool candidates to support their development.

An automated Performance Management System was designed and implemented, enhancing the efficiency of contracting, feedback delivery, and performance reviews. Training was provided to employees, and all performance contracts were uploaded onto the system.

Phase 2 of the Salary Parity Project progressed, with the design of the Pay Progression Model nearing completion and the refinement of related policies underway. These efforts aim to ensure equitable compensation and reward structures across SANSA.

Student Development Programme

The SANSA Student Development Programme has continued to flourish and continues to target previously disadvantaged individuals and promote balance and diversity within the areas and fields critical to the advancement of the national and international space industry.

Funding for student skills development has been secured through grants from the National Research Foundation (NRF) and the DSI HCD grant. Through targeted bursary project awarding, our collaborative efforts aim to identify and engage promising talents from various universities, fostering a diverse pool of students and nurturing emerging researchers poised to inject fresh perspectives and innovative ideas into space-related endeavours. Through these initiatives, we actively foster diversity and inclusivity by providing opportunities for individuals from underrepresented backgrounds to acquire skills and expertise in key priority areas.

SANSA's Bursary programme focuses on building a pipeline of talent and a total of 208 postgraduate students have been supported (with 391 bursaries) over the past eight years through their postgraduate lifespan, from honours-level studies through to doctoral degrees.

2023/24 Support students and Intern Demographics

Table 5: 2023/24 students and interns

	Female	Male	Total
African	15	22	37
Coloured	2	0	2
Indian	0	1	1
White	3	11	14
Total	20	34	54

	Female	Male	Total
Students	20	34	54
Interns	19	16	35

HCD is critical for the success of SANSA's mission to build a skilled workforce. SANSA's initiatives and collaborations are a platform for training and developing the next generation of scientists, engineers, and technicians.

During the 2023/24 financial year, SANSA bursars were given the opportunity to attend a hands-on small Satellite short course hosted by Stellenbosch University's (SU) Engineering Department. SU's Engineering Department managed the course logistics expertly. Their space related short course offerings are a priority area for them, with the aim of supplying some of the missing elements of HCD in the South African industry.

Further expansion of the upstream space related courses in cooperation with other academic institutions in South Africa is strongly supported by SANSA as part of the outreach and industry development strategy.

SANSA students also participated in a Japanese-based course organised through the work of UNISEC Global (a non-profit company with the mission of creating a world where university students can participate in practical space projects in all countries by 2030). One of the educational vehicles introduces attendees to satellite building on a very small and basic level.

SANSA has adopted the strategic view to support and build on similar South African based, higher technical level courses in the South African ecosystem thereby enhancing HCD and offerings to continental partners and also creating opportunities for new and existing industry entities.

SANSA students participated in a Japanese-based course organised through the work of UNISEC Global

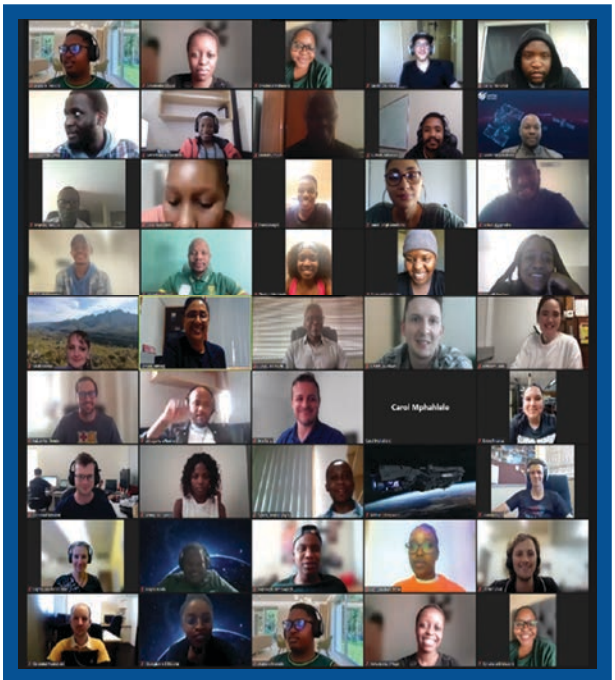
SANSA hosted its third biennial student workshop, virtually, in quarter three, where 59 bursars and students shared high-quality presentations, ranging in topics from physics to engineering through to earth sciences. SANSA bursars interacted with guest speakers, SANSA researchers and colleagues throughout the week which concluded with an energetic discussion with SANSA CEO, Mr Mudau. and Acting Executive Director for Space Science, Mr Jonathan Ward.

SANSA is strengthening its African partnerships through its participation in the SCOSTEP Visiting Scholar (SVS) programme, which is a capacity building initiative to enable graduate students to visit international solar-terrestrial physics institutions. SANSA continues to be a sort after institution and attracts a large number of bursary applications for the 2023/24 financial year. SANSA was proud to host SCOSTEP scholar, Ms Victoria Fatoye, a PhD student based at the Department of Earth Sciences, Anchor University Center for Space Research in Lagos, Nigeria. Ms Fatoye worked closely with SANSA researchers in Hermanus and Pretoria, investigating the effect that tropical cyclones or hurricanes have on low frequency radio transmissions.

The International Space Weather Camp (ISWC) is a collaboration between SANSA, the German Space Agency (DLR), and the University of Alabama Huntsville in the USA. The ISWC is held annually, with the host rotating between the three partner institutions, with two institutions hosting at a time to incorporate a classroom element and a practical component.

The ISWC aims to expose students to the space science field of study, create opportunities for accelerated attraction of students and to grow capacity within this field. The camp covers several topics related to space weather, including introductory lectures in plasma physics, heliospheric physics, cosmic ray transport, Earth's magnetospheric and ionospheric physics, geomagnetism, lower to middle atmospheric dynamics, and radio emission, propagation, and instrumentation. In addition to the lectures the students take part in hands-on group projects, where they use publicly available data and models to gain practical experience in data analysis and/or model simulations to extend on and reinforce concepts covered during the lectures.

The 2023 ISWC was hosted by SANSA and the University of Alabama, after a hiatus between 2020 and 2022 due to the COVID-19 pandemic, which saw the programme take on a virtual format. This year, eight students from each country, with backgrounds in Physics, Computer Science and Electronics Engineering, were selected to participate in what was an overwhelmingly successful camp.



The ISWC is a collaboration between SANSA, DLR, and the University of Alabama Huntsville in the USA

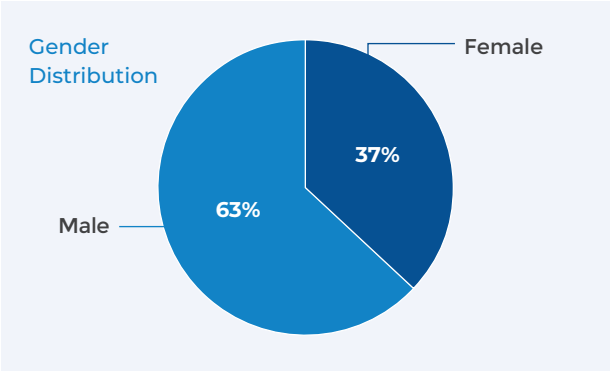


Figure 6: Gender distribution of students

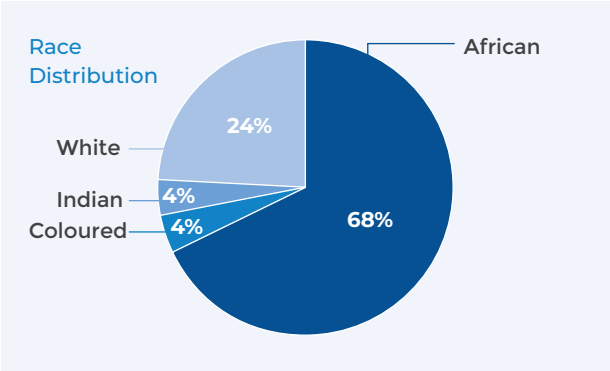


Figure 7: Race distribution of students

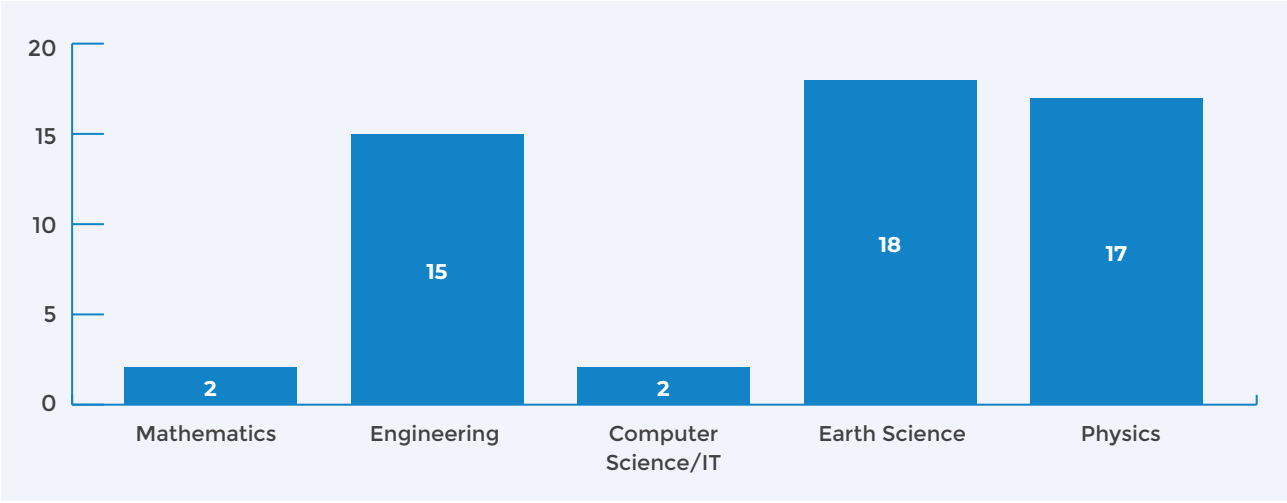


Figure 8: Priority study cluster

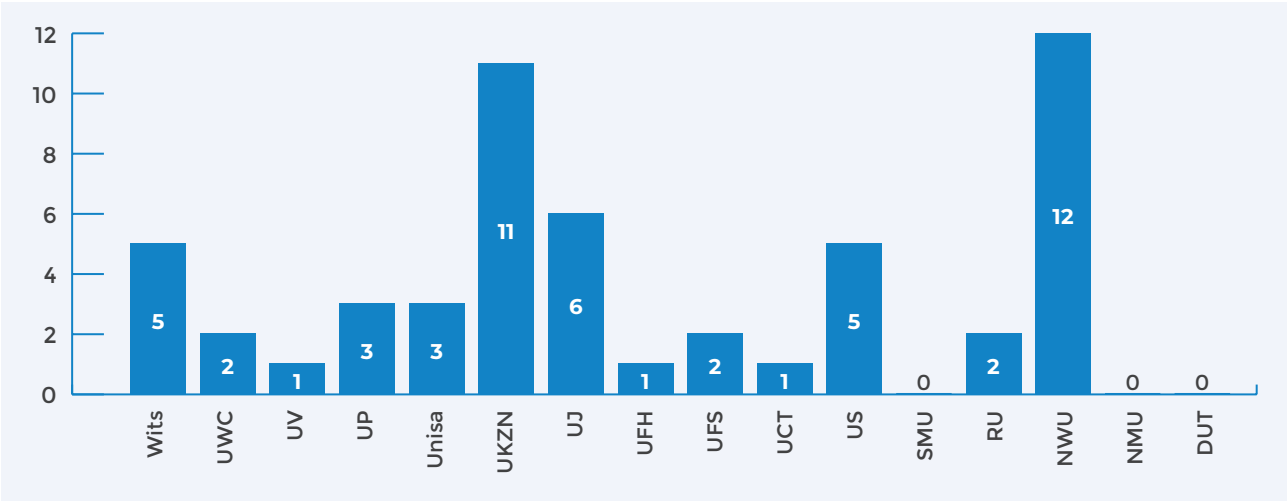


Figure 9: Universities

Enterprise Risk Management

During the year under review, SANSA made significant strides in risk management, with several notable highlights:

- Business continuity processes were significantly refined and strengthened, including crisis management processes. The Space Weather team underwent a comprehensive and immersive exercise programme, comprising a desktop and functional exercises. the rigorous testing aimed to identify and address potential vulnerabilities in systems and processes, ensure seamless redundancy and backup arrangements, validate the effectiveness of our contingency plans, enhance the team's preparedness and response times, and refine our overall resilience and business continuity posture.
- An exercise to further refine and improve processes for protecting personal information, ensuring compliance with the Protection of Personal Information (POPI) legislation was implemented. This included interactive workshops to educate and engage relevant employees, empowering them to handle sensitive information with care.
- SANSA has several key projects underway, and project-specific risk assessments were conducted to identify and mitigate potential risks, ensuring the successful achievement of outcomes and minimising potential risks.

Through these efforts, SANSA demonstrated commitment to proactive risk management, safeguarding operations, and protecting stakeholders' interests.

Science Engagement

Harry Gwala District Science Week 2023

The highlight of the first quarter of the year was the successful delivery of the third Harry Gwala District Science Week in KwaZulu-Natal Province from 15 to 19 May 2023 which attracted 11 science organisations to join SANSA in exhibiting to 1 646 science learners from 28 Harry Gwala District schools. SANSA pioneered this District Science Week in May 2021 during lockdown and the inclusion of the National Disaster Management Centre (NDMC) and the KwaZulu-Natal Provincial Disaster Management Centre (PDMC) as science exhibitors for two days enriched the week-long event, as was the visit by the DSI Deputy Director for Science Promotion.

SANSAnites inspiring the next generation of scientists and engineers

Teaching the Teachers

SANSA hosted the United Kingdom National Space Academy (UKNSA) from 4–6 April in the Western Cape Province. The UKNSA team delivered two developmental workshops for teachers with the focus on STEM space-based activities. The visit took place during the first break of the school calendar. A total of 28 teachers from three districts attended (Overberg, Cape Winelands and Metro South), the teachers ranged from General Education and Training to Further Education and Training phase. The two day training was a success. The training was followed by a one-day learner engagement, with SANSA and UKNSA hosting learners from Van Cutsem combined school from De Doorns in the Cape Winelands, the group consisted of 23 learners comprising 20 female and three male, Grade 12 science learners.

The UKNSA team showcased hand-on science demonstrations that are easy to replicate and a very low cost

National Science Week 2023

SANSA exhibited at the official launch of National Science Week (NSW) 2023 at the University of Venda for some of the youth from neighbouring schools near Thohoyandou that SANSA has previously engaged with as well as the general public who were not deterred by the rainy weather on 22 July. The main highlight at the SANSA Exhibition Stand was the visit by the SANSA Board Chairman, Mr Patrick Ndlovu accompanied by the SANSA CEO, Mr Humbulani Mudau, who is an alumnus of the University of Venda. The SANSA stand was active with Vhembe District youth and the public interested in the space exhibits. The SANSA CEO was recorded engaging with the village chief in Tshivenda language.

SANSA engaging youth and public at NSW 2023 national launch

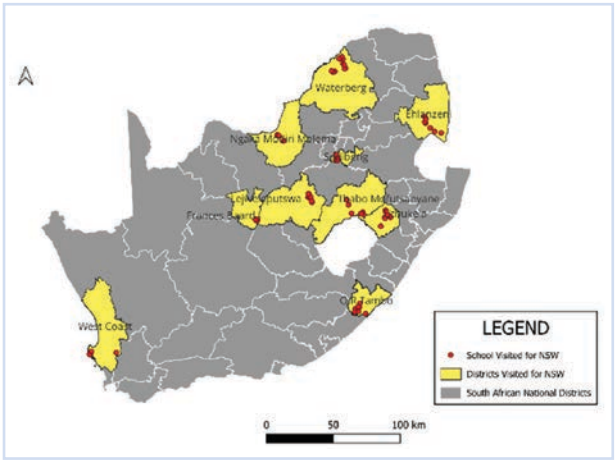


Figure 10: SANSA Earth Observation NSW 2023 footprint in ten districts

The SANSA NSW 2023 implementing team of 25 employees departed to 10 districts located within all nine provinces of South Africa, with the Free State Province having two teams based in Thabo Mofutsanyane and Lejweleputswa Districts. The ten teams simultaneously implemented space awareness activities that reached over 23 000 school-based youth under the 2023 theme of "Transforming lives through evidence-based science" from 31 July to 4 August 2023.

OR Tambo and Waterberg teams engaging school-based youth during NSW2023

Science Engagement Team reach all the way to the UK

Through the collaboration between SANSA and the UKNSA, SANSA was invited to the National Space Center, Leicester in the United Kingdom for a week, from 20 to 27 August 2023 for a collaborative educational outreach opportunity. The week was full of activities ranging from visiting the Royal AirForce (RAF), Train the Trainer hands-on activities at the Space Center, and visit to Coalsville (C.A.N) communities and neighbours for an outreach programme with the community, the team also visited Space Park Leicester, a division of Leicester University that deals with Space related programs. Throughout the visit, the team was introduced to different methods and techniques of delivering effective STEM-related content to the general public, learners and educators. Overall the trip was very educational, fun and inspiring.

SANSA Science Engagement Teams during their visit in the UK

Space Month celebration 2023

With World Space Week celebrations taking place during the South African school holidays nationwide, the week of 16 to 20 October 2023 was targeted as schools reopened for the fourth term and it became the most productive week for outreach during the quarter, with over 60% of the 10 000 youth directly engaged by teams in Amajuba District of the KwaZulu-Natal Province, Amathole District of the Eastern Cape Province, Tshwane Metro, West Rand District, and Johannesburg Metro of Gauteng Province. The second consecutive annual Amajuba District Space Week hosted by the Accredited Arcelor Mittal Science Centre (AMSC), Newcastle, enabled engagement with over 800 youth from six high schools with the University of KwaZulu-Natal Aerospace Systems Research Institute (UKZN ASRI), whilst Amathole District Space Week provided the opportunity to engage over 1 000 youth from nine high schools in collaboration with the Albertina Nontsikelelo Sisulu Science Center (ANSSC) in Cofimvaba.

SANSA space outreach with ANSSC in EC and AMSC in KZN

Youth engagements in 12 Tshwane South District primary schools saw SANSA collaborate with the Tshwane South District of the Gauteng Department of Education in supporting STEM education, focused on the fourth term curriculum topic of "Planet Earth and Beyond" that included engagements with learners from Transoranje School for the Deaf in Pretoria West.

SANSA Planet Earth and Beyond engagements with 12 Tshwane primary schools

World Aids Day Commemoration

SANSA received funding from NRF/South Africa Agency for Science and Technology Advancement (SAASTA) through the Programmatic Support Grant Intervention (PSGI) grant funding to organise an event to commemorate World Aids Day 2023. The theme for World Aids Day was 'Let Communities Lead' Remember and Commit. SANSA organised a number of activities to commemorate the day which included, a speaker from Human Science Research Council, Dr Sean Jooste who provided the latest statistics with regard to the HIV/AIDS pandemic. This was followed by panel discussions on various HIV/AIDS measures to curb the spread of the virus. Hands-on activities were conducted to teach learners about HIV/AIDS.

The panel members who took part in an important community discussion on World Aids Day

Inaugural GEO Ministerial Summit Youth Declaration

Many months of planning by the GEO Ministerial Summit Local Organising Committee that included SANSA and was led by the DSI Space Science and Technology (SST) Chief Directorate, culminated in the 19th GEO Week & Ministerial Summit held in Cape Town from 06 – 10 November 2023. SANSA worked with the DSI SST, GEO Secretariat, and NRF SAASTA to finalise with the ten selected South African EO youth the Inaugural GEO Ministerial Summit Youth Declaration that was delivered by the youth and their counterparts from Asia (China) and Europe (Ukraine) at the conference. Africa is the most youthful continent on aarth and the African Union Agenda 2063 aspires to harvest the youth demographic dividend through its goals, one of which deals with "an engaged and empowered youth and children" (Goal 18). 90% of the South African GEO youth are science graduates.

The ten South African selected ZAGEOYouth with DSI DDG Dr Muofhe and SANSA CEO Mr Humbulani Mudau

The ten youth members were joined by their Chinese counterpart on a GEO Week excursion to two SANSA facilities located in South Africa's space capital Overberg District. The first SANSA facility visited was the SANSA Space Science In Hermanus, home to the Space Weather Forecasting capability where the Acting Managing Director: Mr. Jonathan Ward and his management team welcomed the visitors with a great presentation followed by the guided tour of the Hermanus facility.

GEO Youth excursion to SANSA Hermanus to enjoy the public tour of the facility

SANAnites go on outreach to their home-town

SANSA Space Science SEU team joined by Nondumiso Khumalo (forecaster) and Dr Zama Katamzi-Joseph (researcher) both from KwaZulu-Natal, visited the KwaZulu-Natal on the week of 10 - 16 September 2023, the target district was Ethekwini where ten schools were selected. The aim of the visit was to provide Planet Earth and Beyond curriculum support to the learners, introduce them to SANSA as part of career awareness, explain to them which courses to enrol in to be able to work within the Space Science fields and also expose them to the bursaries SANSA offers to students. The learners were introduced to many space-related topics. During this visit, the team interacted with ten schools organised by both Dr Katamzi-Joseph and Nondumiso Khumalo, the target was grade 10-12 learners (high school). The team provided presentations with the selected schools as well as a hands-on activity of building rockets and launching the rockets in an open field. Both Dr Katamzi- Joseph and Nondumiso Khumalo motivated learners in their respective former schools.

Learners at the KZN schools had the opportunity to build and "launch" their own rockets

EARTH OBSERVATION

13.2 Programme 2: Earth Observation

Programme Purpose

The EO Programme provides for the development and promotion of EO products for socio-economic development and improved livelihoods in South Africa and the African continent. The objective is to collect, assimilate and disseminate EO data and products to support South Africa's policy-making and implementation for socio-economic growth through areas that include food security, water resource management, integrated spatial planning and land reform, disaster management, peace and security, oceans economy and global change.

The EO Programme delivered against the following outcome and five-year targets in the approved SP:

Outcome 1: Increased space-relevant knowledge that supports the developmental agenda.

The EO Programme contributed towards the achievement of Outcome 1 through the achievement of a research productivity score of 350,24 against a targeted 300 for the year. The research productivity score is a composite of publications, graduated students, research funding and research rating, which collectively contribute to the growth of the space-relevant knowledge development agenda.

Outcome 3: Increased human capacity for the implementation of key space initiatives.

The Science Engagement unit carried out space awareness programmes nationwide, targeting schools and the public across various provinces of South Africa, successfully reaching over 58 000 youth.

Outcome 4: SANSA positioned as a key enabler for the implementation of government's space-related policies.

SANSA continues to work closely with government departments to ensure an increased number of government departments and public entities benefit from the utilisation of space products and services. To this end, an additional 14 departments and public entities were supported by the Agency to use space products and services during the financial year.

The Programme further conducted 22 training and awareness interventions with users from various sectors within South Africa to encourage the utilisation of space products and services within the context of the national space awareness programme.

Programme 2: Performance against 2023/24 Output Indicators and Targets

Table 6: Earth Observation performance: 2023/24 financial year

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations
O1 Increased - space relevant knowledge that supports the developmental agenda.	1.1. National research and development output in space-related sciences	1.1.1. National research productivity score for supported R&D	517.64	488.70	300	350.24	+ 50.24	The target was exceeded due to a higher-than-anticipated number of journals being published.
O3 Increased human capacity for the implementation of key space initiatives.	3.1. Youth awareness of space-related sciences	3.1.1. Number of youth directly engaged on space-related sciences	22 224	42 707	37 500	58 076	+ 20 576	The target was exceeded due to the programme capitalising on opportunities to engage with youth.
O4 SANSA positioned as a key enabler of government's space – related policies.	4.4. Awareness and training to key users of space-related products and services	4.4.1. Number of awareness and training interventions to key users of space-related products and services	16	16	10	22	+ 12	The target was exceeded due to the responsiveness of SANSA to the demand for awareness and training interventions
	4.5. Government departments and public entities using space products and services	4.5.1. Number of additional government departments and public entities that are using space products and service	Indicator Reframed	15	12	14	+ 2	The target was exceeded due to SANSA's responsiveness to the demand from government departments and public entities for space products and services.

Programme 2: Performance highlights for the 2023/24 Financial Year

Expansion of SANSA Sensor Portfolio

During the 2023/24 financial year SANSA embarked on a mission to develop a sensor portfolio strategy. The sensor portfolio strategy outlines the activities that SANSA will undertake to ensure the availability of satellite images required by EO data users. In addition, the strategy also highlights the plans to develop innovative data products to stimulate research and interest in the use of EO data to support decision-making. The strategy was approved in October 2023.

To improve the national sensor portfolio, SANSA, installed China-Brazil Earth Resources Satellite (CBERS) 4A direct reception processing system from 07 - 18 August 2023.

China Center for Resources Satellite Data and Application and SANSA team during the installation of CBERS4A terminal at SANSA ground receiving station Hartebeesthoek

The installation of the CBERS-04A terminal is significant as it provides the South African and Southern African Development Community (SADC) a remote sensing community with access of up to 2-metre spatial resolution imagery. CBERS-04A is one of the BRICS remote sensing constellation satellites jointly developed by China and Brazil.

SANSA currently receives CBERS-04A Wide-width Panchromatic Multi-spectral camera (WPM) sensors which offer spatial resolution of 2-metre (Pan) and 8-metre (multispectral).

Figure 11: CBERS 4A image of citrus farms around Sundays River, acquired on 07 March 2024

Figure 12: CBERS 4A image of Port of Ngqura acquired on 07 March 2024

Satellite Data Products

A total of 34 fire reports, 12 irrigation reports and 23 maps were produced and delivered to customers to support their legal claims. The investigations, maps and reports are generated using current and historical coarse, medium and high to very high spatial resolution images. The customers of these products are legal practitioners from public and private institutions in varying disciplines ranging from the mining industry, farming, and insurance sector. These reports and maps are used as evidence in court during fire and irrigation disputes.

In addition, SANSA produces maps or reports to support the management of some of the national and international stakeholders. In January 2024, SANSA mapped and assessed the Cape Wineland District Fire near, Wolseley, in the Western Cape Province.

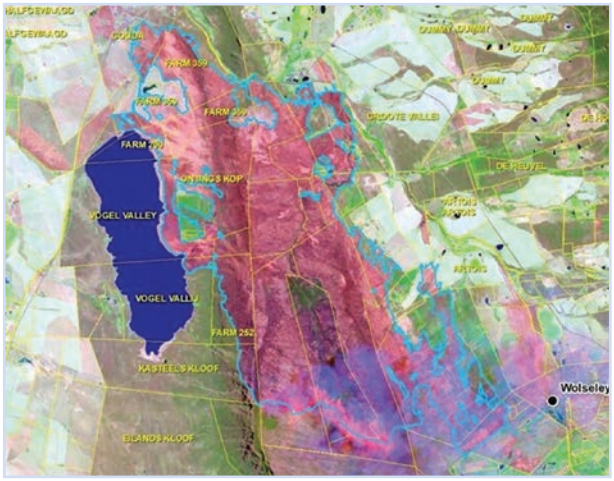


Figure 13: Sentinel-2 image of 25 January 2024 at 10:22. The farm boundaries are in the yellow lines and the blue lines indicate the superimposed fire scar on the image

SANSA supports the international community through its participation on the International Charter: Space and Major Disasters. In February 2024, SANSA joined the international community in the mapping of anoil spill from an abandoned capsized cargo ship in Trinidad and Tobago.

SANSA continues to support the National and Provincial

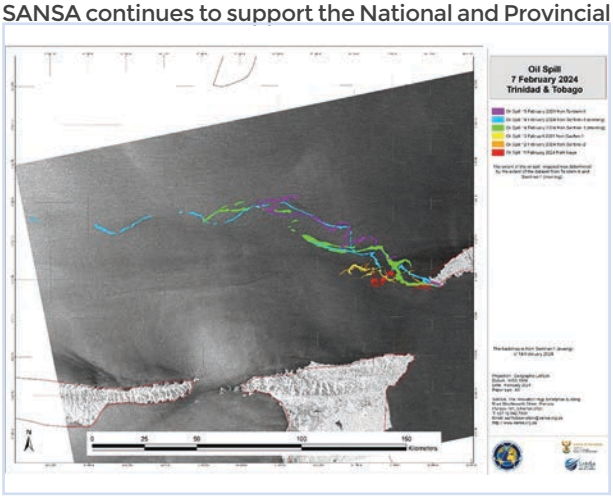


Figure 14: Oil slipping mapping from 11–15 February 2024

Disaster Management Centre with mapping during and after flood disasters. In addition to data supplied by the Charter, SANSA works with international partners to make data available during disasters that are not recognised by the Charter such as, the image provided by China SIWEI during the KZN floods in January 2024. In the Palm View area, households on the bank of Ohlanga river seem to be affected by the floods.

Supporting Decision-making and Decision-support Tools

SANSA's EO programme embarked on a massive stakeholder engagement and awareness activities drive to understand satellite data requirements so as to position SANSA as a preferred supplier of satellite images as well as derived products and services. The awareness activities were conducted through dedicated one-on-one discussions with EO government stakeholders, participation on national and provincial Geographic Information Stakeholder and EO engagements platforms including Geo-informaton Society of South Africa and Provincial Geographical Information System forum.

Drought Decision Support Tool

SANSA has been providing the Department of Water and Sanitation with water extent and volume datasets. The products are integrated into the National Integrated Water Information System (NIWIS). In the 2023/24 financial year, SANSA provided a Vegetation Condition Index (VCI) dataset. The current dataset is based on the relative Enhance Vegetation Index(EVI) change to the historical EVI value. The VCI, therefore, compares the current vegetation index and historical data.

The current product is developed using Moderate Resolution Imaging Spectroradiometer (MODIS) vegetation products. (MOD13Q1) provides surface reflectance data and derived vegetation indices, including Normalised Difference Vegetation Index (NDVI) and EVI at a spatial resolution of 1000 meters.

SANSA processed VCI data from January 2022 to date. The data is currently used as one of the drought variables included in the NIWIS.

Informal Settlements: Illegal Mining Decision Support Tool

In June 2023, the DSI invited SANSA, Council for Scientific and Industrial Research (CSIR) and other science research and academic institutions to discuss the potential contribution of science including space science in combating illegal mining. Illegal mining in South Africa is widespread across various provinces in the country. It often involves small-scale miners operating in abandoned or disused mines, as well as informal mining activities on land belonging to mining companies.

Illegal mining has significant economic implications for

South Africa. It deprives the government of tax revenue, undermines the formal mining sector, and contributes to the loss of revenue for legitimate businesses. Moreover, it often leads to environmental degradation and poses safety risks for both miners and nearby communities. Informal settlements often emerge near or even within areas where illegal mining activities take place. This proximity can be attributed to various factors, including the availability of land, the promise of potential income from mining, and the need for affordable housing among migrant workers and their families.

SANSA has developed a settlement-based dashboard which allows users to visualise mine openings, informal settlements and other land use activities, and mine openings that are within 500m, 1km and 3km of informal settlements.

Bright Cluster Project

The imagery portrays the deployment of a Bright Cluster Computing and storage infrastructure, epitomising a state-of-the-art solution for High-Performance Computing (HPC) environments. Bright Cluster Computing management software empowers organisations to deploy, manage, and monitor intricate HPC clusters with simplicity and efficiency.

It typically comprises interconnected computing nodes, each equipped with high-performance processors, memory, and storage resources. These nodes are orchestrated and managed through a centralised control panel, facilitating seamless integration and administration of the entire cluster infrastructure. Bright clusters are engineered to meet the rigorous computational demands of contemporary scientific research, engineering simulations, data analytics, and other computer-intensive tasks. They furnish researchers and engineers with the computational muscle and scalability necessary to address complex challenges and process vast datasets effectively.

In essence, Bright Cluster Computing embodies an advanced solution for HPC environments, furnishing organisations with the computational power, scalability, and management capabilities requisite for accelerating scientific research and innovation. Its integration with sophisticated storage solutions renders it a versatile platform for an array of applications, including drought monitoring and analysis.

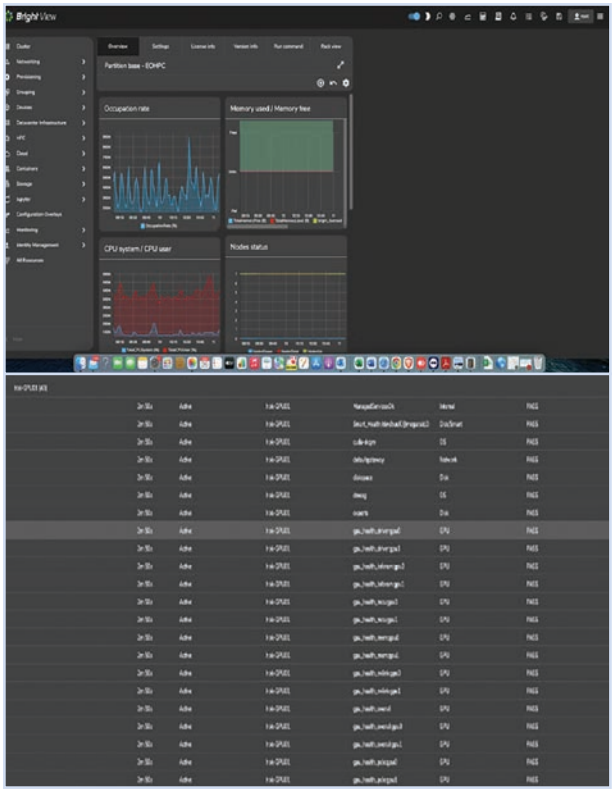


Figure 15: Bright Cluster Computing and storage infrastructure

SPACE SCIENCE

13.3 Programme 3: Space Science

Programme Purpose

The Space Science (SS) Programme leads multidisciplinary space science research and development. Key functions include fundamental and applied space science research, the support of space-facilitated science through science data acquisition, coordination and management of scientific data ground segments, provision of space weather and other geo-space and magnetic technology products and services on a commercial and private basis to the defence, maritime, communications, aviation, and energy sectors. The programme also provides leadership in postgraduate science and engineering student training, as well as science engagement through both learner and educator science support.

The SS Programme delivers against the following outcomes and five-year targets in the approved SP:

Outcome 1: Increased space relevant knowledge that supports the developmental agenda.

The SS Programme contributed towards the achievement of Outcome 1 through the achievement of a research productivity score of 1 266.26 against a targeted 1 200 for the year. The research productivity score is a composite of publications, graduated students, research funding and research rating, which all contribute to the growth of the space-relevant knowledge development agenda.

Outcome 3: Increased human capacity for the implementation of key space initiatives.

SS utilised numerous initiatives towards the achievement of Outcome 3. These include sponsoring postgraduate students, offering short training courses, guest lecturing at universities, co-supervising students, coordinating internships and studentship programmes. The Science Engagement unit carried out space awareness programmes throughout the Western Cape Province, targeting schools and the public, effectively reaching over 15 000 youth during these engagements against an annual target of 7 500.

Programme 3: Performance against 2023/24 Output Indicators and Targets

Table 7: Space Science performance: 2023/24 financial year

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations
O1 Increased space relevant knowledge that supports the developmental agenda.	1.1. National research and development output in space-related sciences	1.1.1. National research productivity score for supported R&D	1 287.63	1 172,04	1 200	1 266.26	+ 66.26	The target was exceeded due to a higher-than-anticipated number of journals being published.
O3 Increased human capacity for the implementation of key space initiatives.	3.1. Youth awareness of space-related sciences	3.1.1. Number of youth directly engaged on space-related sciences	8 064	11 672	7 500	15 350	+ 7 850	The target was exceeded due to the programme capitalising on opportunities to engage with youth.
	3.2 .Students and Interns Supported	3.2.1. Number of students and interns supported for formalised training	26	29	72	90	+ 18	The target was exceeded due to SANSA capitalising on the number of students and Interns the Agency could support for formalised training.

Programme 3: Performance highlights for the 2023/24 Financial Year

Celebrating 20 Years of NASSP: A Journey to the Stars

SANSA attended the 20th anniversary conference of the National Astrophysics and Space Science Programme (NASSP), held at the University of Cape Town (UCT) from 25–26 January 2024, this conference brought together over 100 luminaries, students, and supporters in the field of space science and astronomy. NASSP has been more than a bursary programme; it has been a beacon of opportunity since its inception in 2003.

Initially, NASSP was hosted by the UCT and quickly became a hub for knowledge exchange. Lectures from various institutions enriched the curriculum, leading to a unique degree programme affiliated with universities across South Africa. NASSP's success owes much to collaborative efforts and partnerships. Institutions like UCT, South African Astronomical Observatory (SAAO), SANSA, Rhodes University, UKZN, Free State University, Unisa, North-West University, and Hartebeesthoek Radio Astronomy Observatory (Hartrao) have contributed significantly.

Initially funded by industry partners, such as the Ford Foundation, the Mellon Foundation and the Canon Collins Trust, NASSP laid the groundwork for a new generation of space scientists. Today, the DSI sustains this initiative.

During the conference, Dr Jon-Bosco Habarulema shared insights into opportunities for NASSP alumni across Africa and the pioneering work they do when they return to their home countries. A testament to NASSP's regional reach. Nondumiso Khumalo talked to the ongoing need for gender transformation and how SANSA actively recruits and supports women in space science.

To commemorate this milestone, a coffee table book chronicling NASSP's journey is in the works. The symposium, attended by over 100 participants, reaffirmed a collective commitment to nurturing the next generation of stargazers.

The NASSP delegates during the 20 year celebration

Fast4Future – Inspiring the next generation of space scientists

Students from CPUT visited SANSA Hermanus as part of the Fast4Future programme

SANSA hosted the kick-off meeting for an exciting new multi-year EU-funded STEM engagement and outreach project focused on space science and technology in Botswana, Nigeria, South Africa and Zambia. Participating institutions from South Africa are the Cape Peninsula University of Technology (CPUT), the University of the Witwatersrand and SANSA. This project is being rolled out through a variety of social media, web and physical outreach activities. Professor Michael Kosch and Professor Martin Snow are SANSA's primary participants and attended both kick-off meetings. The first kick-off meeting from 22 - 26 May 2023, was hosted by SANSA in Hermanus. Here the partnership agreement with the EU was finalised and agreed upon. The second kick-off meeting was held from 27 - 28 July 2023 in Livingstone, Zambia where the dissemination strategy was decided along with the web page, social media presence and the planned STEM festivals for 2023. Fast4Future partnered with the SANSA Science Engagement team during the South African NSW and hosted several local schools at SANSA Hermanus to participate in hands-on STEM activities. Visitors from CPUT are engaged in a FAST4Future satellite design programme. Their trip to SANSA in March 2024 was integral to their curriculum, exploring satellite data utilisation. The group consisted primarily of postgraduate CPUT students, focusing on space environment and weather.

Young SANSA Scientists Shine

The entire cohort of space scientists based at SANSA Hermanus now has NRF-Rating. The system benchmarks the quality of researchers against the best in the world and encourages researchers to publish high-quality work in high-impact journals. Dr Rendani Nndangageni and Dr Thsimangadso Matamba were awarded their NRF rating at C3 level in March 2024. This is a major step forward in the career of a researcher. Level C means they are nationally recognised as established researchers.

Dr John-Bosco Habarulema currently serves as editor of three high-impact space science journals. He is the associate editor for Space Weather for the period 6 July 2023 through to 31 December 2027; He is also the editor of Radio Science for the period 30 January 2023 through to 31 December 2026. Both journals are published by the American Geophysical Union. He is also the Topical Editor for the Journal of Space Weather and Space Climate since 27 July 2023 with the role of managing the peer-reviewing process. Editors are therefore expected to have a broad overview of their research disciplines. In particular, decision-making about peer-review paper acceptance or rejection requires careful consideration and examination as it carries both short and long-term implications for the journal and authors involved. Editors ensure that the reputation and integrity of the journals are maintained and enhanced. Generally, the Editorial board decides on the direction of the journal.

Dr John-Bosco Habarulema has been nominated to serve on the NSP for the Scientific Committee on Solar and Terrestrial Physics (SCOSTEP), which runs a five-year international science programme on Solar-Terrestrial Physics. The current programme (2020-2024) is Predictability of Variable-Terrestrial Coupling (PRESTO) which ends in 2024. As this programme ends in 2024, SCOSTEP has started discussions on the NSP to start in 2025 and Dr Habarulema has been nominated to serve on a ten member international committee to define the NSP along with colleagues from the international space science community.

Dr Rendani Nndangageni and Dr Thsimangadso Matamba both received NRF-rating level C in March 2024

Space Weather for Aviation

SANSA hosted the DoT, DSI, ATNS and the new ICAO representative at the Space Weather Centre as part of ongoing awareness campaigns for aviation

SANSA in collaboration with the DSI, the Department of Transport (DoT), the International Civil Aviation Organization (ICAO) and stakeholders made significant progress this year with the implementation of the MET 3 Project that deals with the amendments of the ICAO Annex 3 regulations, which are the regulations that deal with Space Weather monitoring and the implementation thereof.

Since 2019 Space Weather information has formed part of aviation flight planning. One of the objectives of the MET 3 Project is to undertake awareness, education, and training of the different aviation stakeholders within the African region as mandated by the African Indian Ocean Planning and Implementation Regional Group (APIRG). SANSA is the lead organisation in this Met 3 Project and the Project Team Coordinator is Dr Rendani Nndanganeni. The first in-person Space Weather workshop for the project was hosted at SANSA Hermanus, from 05 - 07 June 2023, and was attended by representatives from Kenya, ICAO Regional office, Rwanda, Madagascar, Benin, and a South African delegation from the South African Weather Service (SAWS), South African Civil Aviation Authority (SACAA) and the DoT. The workshop covered the road map to SANSA becoming the designated regional space weather information provider, the science of space weather, and the space weather impact on aviation-related systems. In addition, the delegates updated the member states on project status and the interpretation of space weather advisories. There was positive feedback and an interest expressed by the African States in training from SANSA on space weather.

SANSA continued to host events and bilateral engagements during quarter two, with the main aim to showcase the new Space Weather capability, and to promote SANSA's products and services. This included a two-day visit and workshop with the DoT together with the new South African representative to the ICAO Mr Luvuyo Lulama Gqeke, from 14 - 15 August 2023. Representatives from DSI, DoT, ATNS, SANSA and SAWS discussed the Operational Space Weather Centre, the role of the regional Space Weather Centres; the revenue and sustainability models for the centre; and other important aspects of such as training and skills development.

SANSA in collaboration with DoT and DSI hosted a virtual stakeholder workshop on Space Weather in the Transport Sector on 24 October 2023. There were approximately 88 participants representing the various modes of transport under the DoT. The main purpose of the workshop was to introduce the stakeholders to the concept of space weather and the potential impact that it may have on their daily operations. The theme for the workshop was Space Weather Meets Transport. The workshop was facilitated by the Director of Aviation Ms Lehlogonolo Mashiteng (DoT) and the programme Director was Mr Thandile Vuntu from SANSA.

Data for Africa – SANSA Increases its Instrument Network

A SANSA delegation from Hermanus visited the Zimbabwe National Geospatial and Space Agency (ZINGSA) in Harare, Zimbabwe to install GNSS receiver as part of the African Instrumentation Network, conduct stakeholder engagements and assist with a geomagnetic survey in Gokwein in the Zimbabwean Midlands. The engagements and deployment were successful and are ensuring a fruitful partnership with ZINGSA.

The Engineering and Data Acquisition Unit conducted the eastern leg of its Geomagnetic secular variation station survey from 07-21 September 2023. The trip covered 11 secular variation stations, one Magnetic observatory, and site inspection. All 11 secular variation stations were successfully surveyed. Intercalibrations were successful at the magnetic observatory and the site survey was also successful. Conducting annual surveys is important for maintaining SANSA's high resolution, local geomagnetic field model for clients.

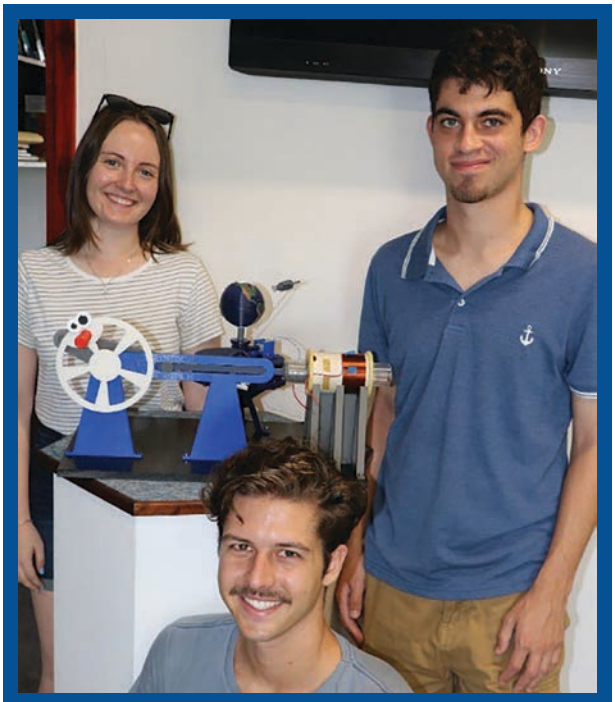
The Engineering and Data Acquisition Unit visited the Oppenheimer Foundation Farm in Umgenipoort for a site inspection and a magnetic gradient survey in order to determine the suitability of the site to host a new magnetometer. The survey and the installation of a temporary magnetometer were conducted in collaboration with UKZN as part of a targeted human capital development initiative.

SANSA and ZINGA team members during their engagement in Zimbabwe

Great expectations – SANSA creates opportunities for the youth

Three local students worked at SANSA in Hermanus for four weeks to complete the practical requirements of their engineering studies at SU. Simon van Wezemael and Elizabeth Montgomery are both third year mechanical engineering students from SU and Danie Gouws jnr is a fourth-year electrical engineering student from SU.

During their time at the space agency, the students were tasked by SANSA's Applied Science and Technology Manager, Danie Gouws snr, to build a demonstrator for Faradays First Law of electromagnetism which states: "when a changing magnetic field is in close proximity to an electrical conductor, an electrical current would be generated in the conductor."



Elizabeth Montgomery, Danie Gouws jnr. and Simon van Wezemael (front) with the demonstrator that illustrates Faradays First Law

SPACE OPERATIONS

13.4 Programme 4: Space Operations

Programme Purpose

The Space Operations (SO) Programme is responsible for the acquisition of satellite data for the EO Programme and the provision of ground segment support. Through this programme, SANSA conducts various space operations, including launch and early orbit support, in-orbit testing, satellite lifecycle support and satellite mission control for both national and international space industry clients and governments. The programme also supplies hosting capabilities with the intention of expanding this capability to teleports.

SANSA SO is planning to develop a new ground station at MTJ. This will ensure that South Africa has the capability to heed the worldwide call from the space sector for deep space capabilities, selected teleport services, as well as the capability to track cubesats from that facility. The facility is also to create the opportunity for the local cubesat manufacturers to further develop their programmes in the ground station segment to fulfil the total value chain of satellite building.

The SO Programme delivers against the following outcome and five-year targets in the approved SP:

Outcome 6: Increased participation of the National Space Programme in the regional and global space market.

Programme 4: Performance against 2023/24 Output Indicators and Targets

Table 8: Space Operations performance: 2023/24 financial year

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations
O6 Increased participation of the National Space Programme in the regional and global space market.	6.1. Space products and applications	6.1.1. Number of products and applications	3	5	7	14	+ 7	The target was exceeded due to the responsiveness of SANSA to the demand for products and applications.

Programme 4: Performance highlights for the 2023/24 Financial Year

SANSA is renowned for world class telemetry, tracking and command, antenna hosting, and launch support services offered from its ground station in Hartebeesthoek. However, the focus for the year under review has been on the establishment of the new deep space ground station in MTJ. The ground station fulfils SANSA's ambition to develop deep space exploration infrastructure with sophisticated equipment for communication with satellites, probes, rockets and terrestrial planets. Eventually, the site will form part of NASA Lunar Exploration Ground Sites (LEGS) programme. To implement its LEGS programme, NASA will target locations across the globe strategically positioned to support its Lunar missions.

The MTJ Ground Station

The MTJ project is progressing steadily with several studies conducted to prepare for the design and construction of the site. In the year under review, several studies were completed including topographical survey, geotechnical survey, radio frequency interference survey and hydrological survey. A weather station was also erected to provide real-time atmospheric measurements of air temperature, relative humidity, pressure, wind speeds and direction, rain and hail accumulation, duration, and intensity.

Compliance with regulatory and legislative requirements is a critical aspect of the MTJ project. SANSA has diligently navigated these requirements by completing an Environmental Impact Assessment as well as complying with several statutory requirements. These include the acquisition of a site clearance permit from Cape Nature – a public entity described as "the chief custodian of the Western Cape's natural environment", established in terms of Section 9 of the Western Cape Biodiversity Act, No. 6 of 2021. This permit authorised vegetation clearance at the site. The cleared vegetation was successfully transplanted at a different but suitable location.

Figure 16: Indigenous vegetation transplanted

Projects and Launch Support Highlights

IM-1 Nova-C

SANSA played a crucial role in supporting the Intuitive Machines (IM-1) mission which aimed to place a NOVA-C lander near the south pole of the Moon. This commercially built lander carried five NASA payloads and commercial cargo. SANSA's ground station facilitated communication and navigation node capabilities essential for this precision landing mission. IM-1 was selected through NASA's Commercial Lunar Payload Services initiative, underscoring the importance of ground stations in facilitating critical lunar missions.

Figure 17: IM-1 NOVA-C

SARah

SANSA contributed to the SARah mission, the follow-on system for the SAR-Lupe radar satellite constellation operated by the German armed forces. SARah aims to provide higher resolution imagery than its predecessor, SAR-Lupe. SANSA's ground station played a vital role in receiving and processing data from the SARah satellites, enabling enhanced surveillance capabilities for the German military.

ADRAS-J

SANSA provided essential support for the ADRAS-J spacecraft, selected by the Japan Aerospace Exploration Agency (JAXA) for Phase I of its Commercial Removal of Debris Demonstration Project. ADRAS-J demonstrated the safe removal of large-scale debris from orbit, showcasing groundbreaking technology in space debris management. SANSA's ground station facilitated communication and data transfer for this pioneering mission, highlighting the critical role of ground stations in space debris mitigation efforts.

These missions underscore the significance of ground stations in enabling critical space operations and advancing scientific research and exploration objectives. SANSA's support was instrumental in ensuring the success of these missions, emphasising the organisation's commitment to the advancement of space exploration and technology.

Figure 18: ADRAS-J

SPACE X Gateway Project

Space X added another ground station installation at the Space Operations site. The site was built in less than a month and is currently operational.

Figure 19: New Space X gateway installation

EGNOS EV3 Project

European Geostationary Navigation Overlay Service (EGNOS), the European Satellite Based Augmentation System (SBAS), selected SANSA HBK site as its hosting location for its EGNOS V3. EGNOS plays a crucial role in enhancing the Global Positioning System (GPS) Standard Positioning Service (SPS) by providing augmentation services. Presently, EGNOS augments GPS using the L1 (1575.42 MHz) Coarse/Acquisition (C/A) civilian signal function. It achieves this by furnishing correction data and integrity information, thereby improving positioning, navigation, and timing services across Europe. With its V3 system, EGNOS will expand its capabilities to augment both GPS and Galileo in the future. This expansion will utilise both L1 and L5 (1176.45 MHz) frequencies, promising even greater precision and reliability. The selection of SANSA as the hosting site underscores the Agency's reputation for excellence and reliability in supporting cutting-edge satellite technology.

Figure 20: EGNOS EV3, courtesy of www.telesatellite.com

Support Statistics

Table 9: Missions supported during the 2023/24 financial year

Support	Completion Date	Support Days	Type	Customer
ADRAS-J MARCH	31 03 2024	12 DAYS	ROUTINE	KSAT
XRISM MARCH	31 03 2024	28 DAYS	TT&C	SSC
F9 EUTELSAT 36X	30 03 2024	1 DAY	LAUNCH	SPACE X
MMS MARCH	19 03 2024	2 DAYS	LEOP	SSC
STARSHIP OFT-3	14 03 2024	1 DAY	LAUNCH	SPACE X
F9 TRANSPOTER10	05 03 2024	2 DAYS	LAUNCH	SPACE X
XRISM FEB	29 02 2024	19 DAYS	TT&C	SSC
IM-1	29 02 2024		TOSS	INTUITIVE
OVZON-3 EOR	20 02 2024	13 DAYS	EOR	INTELSAT
GOES-13 FEB	21 02 2024	16 DAYS	DRIFT	SSC
ADRAS-J ROUTINE	27 02 2024	5 DAYS	ROUTINE	KSAT
MMS FEB	24 02 2024	2 DAYS	LEOP	SSC
ADRAS-J LEOP	22 02 2024	4 DAYS	LEOP	KSAT
F9 TELKOMSAT 113	20 02 2024	1 DAY	LAUNCH	SPACE X
OVZON-3 TOSS	17 01 2024	14 DAYS	TOSS	INTELSAT
XRISM JANUARY	31 01 2024	27 DAYS	TT&C	SSC
SARAH 2	22 01 2024	4 DAYS	LEOP	KSAT
FALCON 9 OVZON 3	03 01 2024	1 DAY	LAUNCH	SPACE X
XRISM DECEMBER	31 12 2023	22 DAYS	TT&C	SSC
SARAH 1	26 12 2023	3 DAYS	LEOP	KSAT
MMS DECEMBER	25 12 2023	2 DAYS	LEOP	SSC
F9 EOIRSAT	01 12 2023	1 DAY	LAUNCH	KSAT
XRISM NOVEMBER	30 11 2023	29 DAYS	TT&C	SSC
GOES 13 DRIFT	24 11 2023	16 DAYS	DRIFT	SSC
STARSHIP IFT-2	18 11 2023	1 DAY	LAUNCH	KSAT
Anomaly				
F9 MPOWER C	12 11 2023	1 DAY	LAUNCH	KSAT
F9 TRANSPORTER 9	11 11 2023	1 DAY	LAUNCH	KSAT
XRISM OCTOBER	31 10 2023	28 DAYS	TT&C	SSC
MMS OCTOBER	27 10 2023	3 DAYS	LEOP	SSC
F HEAVY PSYCHE	13 10 2023	1 DAY	LAUNCH	KSAT
BADR-8 EOR	24 09 2023	12 DAYS	EOR	INTELSAT
MMS SEPTEMBER	19 09 2023	1 DAY	LEOP	SSC
XRISM SEPTEMBER	12 09 2023	6 DAYS	TT&C	SSC

Support	Completion Date	Support Days	Type	Customer
JUPITER-3 EOR	04 09 2023	12 DAYS	EOR	INTELSAT
F9 SDA-0B	02 09 2023	1 DAY	LAUNCH	KSAT
MMS AUGUST	17 08 2023	1 DAY	LEOP	SSC
JUPITER-3	12 08 2023	9 DAYS	TOSS	INTELSAT
F9 STARLINK G6-20	08 08 2023	1 DAY	LAUNCH	KSAT
F9 INTELSAT G-37	03 08 2023	1 DAY	LAUNCH	KSAT
F9 JUPITER 3	29 07 2023	1 DAY	LAUNCH	KSAT
H2SAT	23 07 2023	16 DAYS	LEOP	SSC
F9 STARLINK G6-15	20 07 2023	1 DAY	LAUNCH	KSAT
ELECTRA	18 07 2023	9 DAYS		
HYLAS-1			DRIFT	INTELSAT
LOKI	07 07 2023	7 DAYS		
F9 STARLINK G5-13	07 07 2023	1 DAY	LAUNCH	KSAT
F9 EUCLID	01 07 2023	1 DAY	LAUNCH	KSAT
F9 STARLINK G5-7	26 06 2023	1 DAY	LAUNCH	KSAT
F9 PSN MFS	18 06 2023	1 DAY	LAUNCH	KSAT
F9 TRANSPORTER 8	12 06 2023	1 DAY	LAUNCH	KSAT
F9 ARABSAT	27 05 2023	1 DAY	LAUNCH	KSAT
BADR-8	27 05 2023	3 DAYS	TOSS	INTELSAT
F9 IRIDIUM ONEWEB	20 05 2023	1 DAY	LAUNCH	KSAT
ARCTURUS / Astranis	01 05 2023	1 DAY	BACKUP	INTELSAT
F9 MPOWER 8	28 04 2023	1 DAY	LAUNCH	KSAT
STARSHIP	20 04 2023	1 DAY	LAUNCH	KSAT
S/C ANOMALY				
F9 TRANSPORTER 7	15 04 2023	1 DAY	LAUNCH	KSAT
INTELSAT_40E	15 04 2023	1 DAY	TOSS	INTELSAT
HOTBIRD F2	15 04 2023		EOR	INTELSAT
F9 INTELSAT_40E	07 04 2023	1 DAY	LAUNCH	KSAT
F9 SDA-0A	02 04 2023	1 DAY	LAUNCH	KSAT

Space Operations Customer Satisfaction

Customer satisfaction is measured with each support and/or mission service provided to a SANSA customer. Customer satisfaction is critical to high-tech organisations and can help an organisation sustain and grow by penetrating the market faster, connecting better with clients, seizing opportunities, and increasing its competitive edge. For the year under review, 67 missions were supported. SANSA received satisfaction feedback for 21 missions with 16 "above average" ratings and five"excellent" ratings.

EO Data Downloads

SO scheduled and tracked a total of 4 277 satellite overpasses for SANSA EO and successfully acquired data from 4 208 of them for the year ending 31 March 2024. A total of 69 passes were lost or degraded over the period in question, 24 of them were due to "in-station" anomalies incurred. About 45 passes were lost due to satellite or "out-of-station" anomalies.

The sum of data acquired from all overpasses over the period concerned is 46 116.92 minutes, while 234.74 minutes were lost in total over the same period.

The overall proficiency score achieved = 99.72%

The EO proficiency score is calculated using the formula below:

[(Total minutes of successful scheduled data acquisitions - Total minutes of failed scheduled data acquisitions)/ total minutes of scheduled data acquisitions

[(46 116.92 – 234.74)] / 46 116.92

Total minutes of data recorded (FY 2023/24)

46 116.92

Total minutes of data lost (FY 2023/24)

234.74

% proficiency – 99.5%

SO exceeded its annual performance target with an overall achievement of 99.5%. The achievement stems from consistent antenna system performances and the spirit of excellence from employees that operate and maintain them.

The bulk of data losses stem from technicalities or anomalies associated with the AVTEC high data rate demodulators. The units are ageing and it is becoming evident that their performances are degrading with time.

Table 10: EO pass statistics for 2023/24

FY2023/24	No. passes scheduled	No. of passes successful	Total mins of data recorded	Total mins of data lost	%reliability
Q1	1 100	1 085	11 782.00	121.84	98.97
Q2	1 106	1 094	11 999.77	56.7	99.53
Q3	1 079	1 076	11 750.26	26.78	99.77
Q4	992	953	10 584.89	29.42	99.72
Total/Average	**4 277**	**4 208**	**46 116.92**	**234.74**	**99.5**

Information Communication Technology

Internet services

Direct Internet Access (DIA) communication circuits installation, commissioning and integration has been completed for Avanti, CNES, Eutelsat, Intelsat, Inmarsat, KSAT, Orbcomm, OneWeb, PanEOS, SpaceX, SSC Space, Telesat, and Viasat.

The annual security audit resulted in 97% compliance. SO security and contingency plans have been reviewed but still await input and feedback from the disaster representative.

The audit focused on the following modules:

- Module 1: Management and owner compliance to the NKP Act
- Module 2: Security administration
- Module 3: Physical security protection

For the year under review, SANSA updated the security policy which was approved by the Executive Comittee and the regulators for compliance. The Agency's security and contingency plan was also updated and approved by the NKP Regulator.

SANSA is part of a functional joint operational structure that holds regular meetings with protection groups. Physical security at the Hartebeesthoek facility has been challenging in that the boundaries are expanding due to business growth. This growth makes the site more visible and desirable for criminals who have made several attempts to breach the fence. As a counter measure, SANSA strengthened the closed-circuit television systems and is working on improving night illumination within the premises.

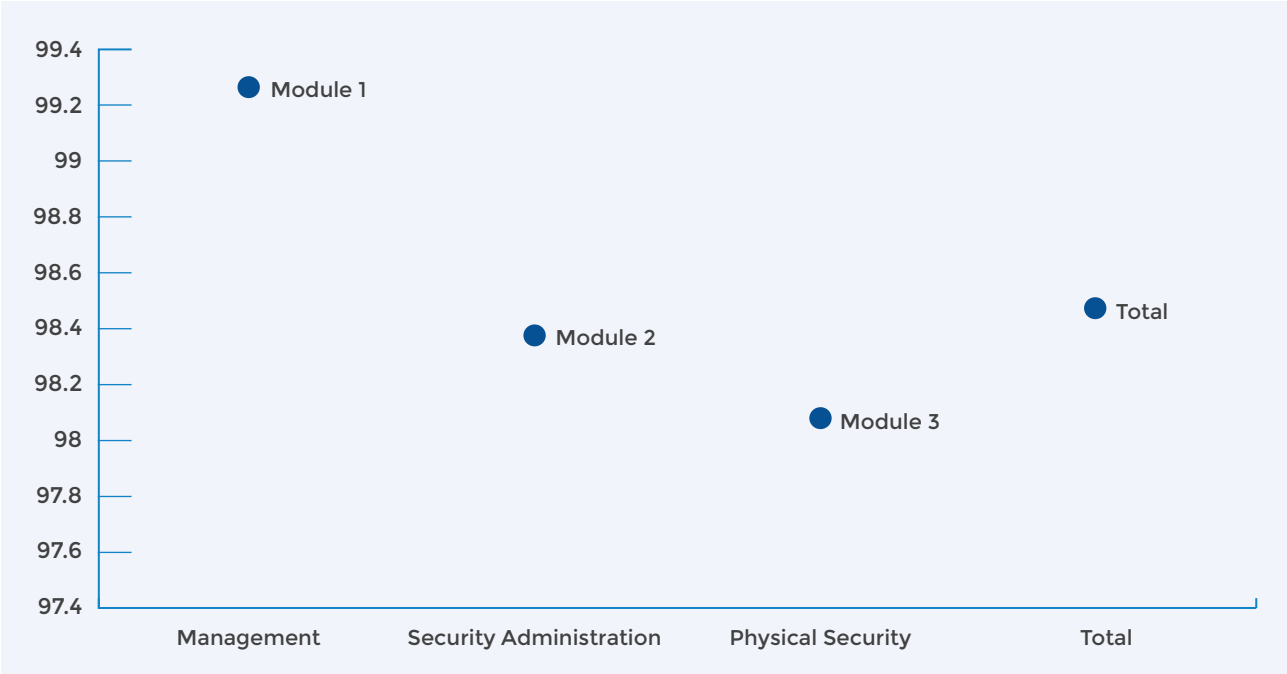


Figure 21: Achievement per module

SPACE ENGINEERING

13.5 Programme 5: Space Engineering

Programme Purpose

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

The SE Programme delivers against the following outcome and five-year targets in the approved SP:

Outcome 2: Stimulated and growing, inclusive space sector.

SANSA contributed towards the achievement of Outcome 2 through the Agency's expenditure on space-related projects which amounted to R 34. 3 million.

Outcome 5: Enabling infrastructure developed and upgraded to support the space sector value chain.

The Agency contributed towards Outcome 5 through the implementation of its infrastructure projects, namely the development of the SIH upgraded AIT facility and MTJ deep space facility.

Programme 5: Performance against 2023/24 Output Indicators and Targets

Table 11: Space Engineering performance for the 2023/24 financial year

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Perfor-mance 2022/23	Planned Annual Target 2023/24	Actual Achieve-ment 2023/24	Devia-tion from planned target to Actual Achieve-ment 2023/24	Reason for deviations	Reasons for revisions to the Annual Targets
O2 Stimulated and growing, inclusive space sector.	2.2. SANSA space-related industry expenditure	2.2.1. The total contract expenditure to the broad space-related industry for core space projects	R13.1 million	R61,8 million	R32 million	R34.3 million	+ R2.3 million	Not applicable	The target was revised in line with National Treasury's 2023 Adjusted Estimates of National Expenditure (AENE), SANSA's amended budget and DSI's recommendation.
O5 Enabling infrastructure developed and upgraded to support the space sector value chain.	5.1. Infra-structure developed or upgraded	5.1.1. Percentage progress towards a developed Space Infrastructure Hub (SIH)	New Indicator	Contracting and acquisition of the SIH phase I mission system not concluded by year-end	5% of SIH Phase 1 project plan executed	7%	+ 2%	Not applicable	Target revised in line with National Treasury's 2023 AENE, SANSA's amended budget and DSI's recommendation

Outcome	Output	Output Indicator	Audited Actual Performance 2021/22	Audited Actual Performance 2022/23	Planned Annual Target 2023/24	Actual Achievement 2023/24	Deviation from planned target to Actual Achievement 2023/24	Reason for deviations	Reasons for revisions to the Annual Targets
O5 Enabling infrastructure developed and upgraded to support the space sector value chain.	5.1. Infrastructure developed or upgraded	5.1.2. Percentage progress towards a developed Matjiesfontein deep space facility	New Indicator	100%	35% of Matjiesfontein deep space facility project plan executed	25%	- 10%	Significant progress has been made in the implementation of the 3-year MTJ project. Challenges in the initial stages have resulted in a slight delay in the implementation of some aspects of the project. The 2024/25 FY will see the ramp-up of the activities and subsequently the achievement of milestones within the project.	Not applicable
		5.1.3. Percentage progress towards an upgraded AIT facility	Revised project schedule and implementation plan	0%	8% of upgraded AIT facility project plan executed	0%	- 8%	The project kick-off meeting was held in September 2023. Procurement activities were initiated and then processed once the SIH contract from the DSI was awarded to SANSA in mid-March 2024. The 2024/25 FY will see the ramp-up of the activities and subsequently the achievement of milestones within the project.	Target revised in line with National Treasury's 2023 AENE, SANSA's amended budget and DSI's recommendation

Programme 5: Performance Highlights for the 2023/24 Financial Year

Concurrent Design Engineering Facility

SANSA presented the entity's Concurrent Design and Engineering Facility (CDEF) at the Aerospace Simulation and Training Symposium (ASTS), held at the Innovation Hub from 10-11 July 2023. The CDEF attracted much interest from the SAAF, with the Major General L Mathebula leading a delegation from the SAAF to the facility. SANSA had subsequently received various correspondences from the SAAF requesting collaboration and assistance.

Visit by SAAF to the CDEF at the ASTS Symposium

EO-Sat1 Programme Completion

Funding for the completion of EO-Sat1 Project was secured following contracting in March 2024. The EO-Sat1 flight model is expected to be delivered in 24 months. The handover of the satellite operations will be preceded by the commissioning phase following the launch of the satellite. A suitable launch vehicle and launch provider has yet to be identified.

The EO-Sat1 project completion contract was concluded in March 2024 to the value of R200 million for the satellite-built segment. The project will be delivered by the local South African Satellite built industry leveraging on the capacity that has been developed over decades of investment by government.

Houwteq Assembly, Integration, and Testing (AIT) Facility Upgrade

The Houwteq AIT Facilities upgrade project kick-off meeting was held on 11 September 2023 at Houwteq, situated in Grabouw, Western Cape. Due to the impact of cost-containment measures from National Treasury, procurements were temporarily delayed with, recommencment in March 2024 with the awarding of the SIH contract to SANSA by the DSI. In attendance was Denel Spaceteq, the SANSA Integrated project team (IPT) and representatives from the SAAF Space Command.

AIT facilities tour

SANSA/Upstream industry engagement

Space Launch Capability Project

The first general meeting of government entities was held ASRI, UKZN, from 08–09 February 2024. The two-day session included student presentations, various discussions and a facilities tour. In attendance were ASRI (as well as the DVC of Research at UKZN), SANSA, DSI, Armscor, CSIR and Denel. The next meeting is planned for 08 May 2024, to be held at OTR in Arniston, Western Cape, to formalise the steering committee and sub-committees.

Final session of the indigenous launching capabilities programme at ASRI

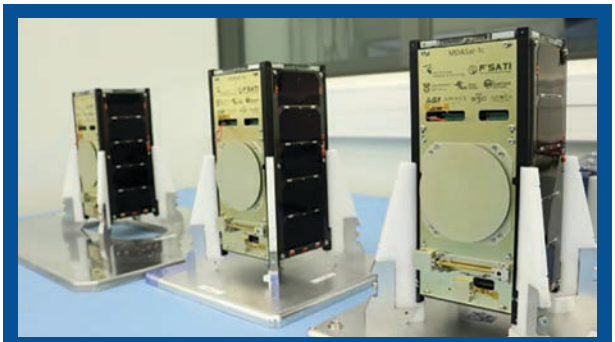
Maritime Domain Awareness Satellite (MDAsats) Mission

The MDASat mission, designed and built by CPUT, consists of a mini-constellation of three (2U) cubesats, i.e. MDASat-1a,1b and 1c (nicknamed the "triplets") that were launched into orbit in January 2022.

Due to technical issues experienced after launch with one of the onboard communication busses, the commissioning of the payloads was not completed. Investigations are still ongoing, however, due to attrition of human capital resources, the project is experiencing delays as it struggles to perform required analyses and corrective measures on the MDASat-1 constellation.

The M2MSat mission forms part of the technology roadmap for the final operational MDASat mission, as well as an enabling technology contributing to various other CubeSat missions.

With the goal of demonstrating machine-to-machine communications between various terrestrial sources to the satellite and then to ground stations and repeating, an opportunity is provided to thoroughly evaluate the issues experienced with the "triplets". This mission has an upgraded payload with a complete transceiver implemented on the VDES channels. This brings the technology closer to the goal of an operational VDES satellite mission supporting the Maritime Domain Awareness goals of our country.



MDASat-1a,1b and 1c

Space Engineering Priorities for the 2024/25 financial year

- Space Engineering capacitation
- EO-Sat1 execution and launch provider contracting
- Houwteq AIT Upgrade
- Houwteq and Spaceteq transfer to SANSA
- M2MSat completion and launch with CPUT
- ZACUBE3 with CSIR (FireSat mission technology demonstrator)

Nanosatellite constellations under development (Image provided by CPUT)

14. Linking Performance with Programme Budgets

Table 12: Linking performance with budgets

Programme	2023/24			2022/23		
	Budget R'000	Actual R'000	(Over)/ Under Expenditure R'000	Budget R'000	Actual R'000	(Over)/ Under Expenditure R'000
Programme 1: Administration	159 478	123 925	35 552	92 249	98 592	(6 343)
Programme 2: Earth Observation	78 575	62 615	15 961	102 841	66 181	36 660
Programme 3: Space Science	73 745	75 804	(2 060)	85 047	70 500	14 547
Programme 4: Space Operations	87 873	95 858	(7 985)	123 401	99 874	23 527
Programme 5: Space Engineering	57 809	7 104	50 705	7 314	6 417	897
Total	**457 479**	**365 306**	**92 173**	**410 852**	**341 564**	**69 288**

Strategy to overcome areas of under performance

The underspending in the Administration Programme was due to the implementation of support projects over extended periods of time and unfilled vacancies due to the hold on recruitment. The underspending in the Earth Observation Programme was related to the low customer demand for data satellite images. The overspending in the Space Science Programme was mainly attributable to the grant funding for the operational Space Weather Centre not being secured by year end. The expenditure in the Space Operations Programme was aligned to income for the completion of construction projects. The underspending in the Space Engineering Programme was due to unfilled vacancies and the delay in implementation of the AIT facility upgrade.

15. Revenue Information

Table 13: Revenue information

Programme	2023/24			2022/23		
	Estimate R'000	Actual Amount Collected R'000	(Over)/ Under Collection R'000	Estimate R'000	Actual Amount Collected R'000	(Over)/ Under Collection R'000
Contract Income: Public	18 686	23 511	(4 826)	22 693	22 349	344
Contract Income: Private	5 285	6 501	(1 216)	6 004	7 030	(1 026)
Contract Income: Foreign	92 826	130 926	(38 101)	53 031	102 249	(49 218)
Other Income	11 225	14 924	(3 700)	6 193	11 419	(5 226)
Total	**128 021**	**175 863**	**(47 841)**	**87 921**	**143 047**	**(55 126)**

The public sector revenue exceeded the budget due to income from the Directorate of Geospatial Intelligence (DGI), Armscor, the Department of Water Services (DWS) and HartRAO. The private sector income exceeded the budget due to additional demand for compass calibration and the increase in charges for electricity at Hartebeeshoek. The foreign income exceeded budget due to the favourable exchange rate and additional revenue from ad-hoc launch support projects from existing clients such as KSAT, INTELSAT and VIASA.

16. Capital Investment

Capital Investment, Maintenance and Asset Management Plan

SANSA policies assist in ensuring resources are effectively and efficiently managed. The Asset Management Policy is aligned with proper management of asset infrastructure and reporting thereof. The application of resources is monitored through maintenance plans, risk management processes and business continuity management plans to safeguard the optimal utilisation of SANSA's infrastructure for operational and industry applications.

Table 14: Capital investment

Programme	2023/24			2022/23		
	Budget R'000	Actual R'000	(Over)/ Under Expenditure R'000	Budget R'000	Actual R'000	(Over)/ Under Expenditure R'000
Extension of Student Residence (Hermanus)	2 214	2 214	0	3 793	3 793	0
Matjiesfontein Ground Segment	75 000	1 773	73 227	-	-	-
Guard house (Hermanus)	1 157	931	226	-	-	-
Access Road (Hermanus)	479	361	118	-	-	-
Total	**78 850**	**5 279**	**73 571**	**3 793**	**3 793**	**-**

In the financial year under review the SIH project was not implemented as envisaged, and the project is budgeted for the 2024/25 financial period. The Solar Telescope installation was also not implemented during the 2023/24 financial year. In relation to the MTJ project SANSA received R75 million in March 2023 and implementation and expenditure commenced in 2023/24.

The following infrastructure projects were initiated and / or completed in the 2023/24 financial year:

- The extension of the student residence at SANSA Hermanus was completed.
- The upgrade of the access road at SANSA Hermanus.
- The building of the Guard House at SANSA Hermanus to comply with the NKP requirements.
- The funding for the Mtjs ground segment was secured and received in March 2023 and implementation commenced in the 2023/24 financial year. The project has long lead times and spending is expected to increase significantly in 2024/25 as procurement is concluded and the project implementation gains momentum.

Table 15: Key infrastructure projects

2023/24 Key Infrastructure Projects	Pipeline Projects
Extension of Student Residence (Hermanus site)	Space Infrastructure Hub (SIH)
Matjiesfontein Ground Segment	Solar Telescope Installation
Guard House (Hermanus site)	
Access Road (Hermanus site)	

Funding of R481 000 000 for the SIH project was received at the end of the 2023/24 financial year. This project implementation is due to commence in the 2024/25 financial year.

PART C

GOVERNANCE

17. Introduction

SANSA was established in terms of the SANSA Act, (Act No. 36 of 2008, as amended) and forms part of the portfolio of entities overseen by the DSI. The Agency adheres to the legislative mandate outlined in the Space Affairs Act, (Act No. 84 of 1993), an instrument of **the dtic** which establishes the regulatory and policy framework for a South African space programme. SANSA, a Schedule 3A entity, is governed by the PFMA and National Treasury Regulations. The Agency endeavoured to maintain the highest levels of governance and adherence to best practices throughout the financial year ended 31 March 2024, adopting principles of the King IV Report on Governance.

18. Portfolio Committees

Parliament exercises its role through evaluating the performance of public entities by interrogating their Annual Financial Statements and other relevant documentation which are required to be tabled, in addition to any other documentation tabled.

The Portfolio Committee on Higher Education, Science and Innovation oversees the delivery of services by public entities and assesses the non-financial information included in their annual reports. The Committee's focus is on enhancing economic growth and ensuring effective service delivery. In this regard, SANSA presents its SP and APP to the Portfolio Committee.

19. Executive Authority

SANSA reports to the Minister of Science and Innovation as prescribed by the PFMA and SANSA Act. The Executive Authority has the power to appoint and dismiss the Board of a public entity and must ensure that members of the Board have the necessary skills and experience to guide the public entity. SANSA presents the Annual Report, strategic plan and annual performance plans to the Minister of Science and Innovation. During the year under review, SANSA submitted all prescribed reports (e.g., quarterly reports) and complied with the provisions of the PFMA.

20. The Accounting Authority/ The Board and Board Committees

The Board is the Accounting Authority in terms of the PFMA and reports to the Minister of Science, and Innovation (Executive Authority). The Board is responsible for providing SANSA with strategic direction, and ethical leadership and ensures that the Agency abides by good corporate governance principles.

The Role of the Board

The responsibilities of the Board are dictated primarily by the SANSA Act and the PFMA. Section 9 of the SANSA Act stipulates the Board's main functions and responsibilities, which are to add significant value to SANSA by:

- Performing any function imposed upon it in accordance with the policy issued by the Minister and in terms of the SANSA Act,
- Overseeing the functions of the Agency,
- Monitoring the research priorities and programmes of the Agency,
- Giving effect to the strategy of the Agency in the performance of its functions,
- Notifying the Minister immediately of any matter that may prevent or materially affect the achievement of the objectives of the Agency, and
- Establishing or disbanding the Agency's organisational divisions, as appropriate, after consultation with the Minister.

The Board Charter

The Charter sets out the role and functions of the Board, highlights the fiduciary responsibility and accountability, as well as the internal structures and operations of the Board. The Charter is informed by several legislative prescripts and governance guidelines. These include the provisions of the South African National Space Act No. 36 of 2008 (the Act) as amended, the Public Finance Management Act No. 1 of 1999 (the "PFMA") and the King IV report on Corporate Governance. In accordance with the provisions of Section 6(1) of the Act, the Board governs the Agency.

Composition of the Board

As of 31 March 2024, the Board consisted of 11 non-executive members and the CEO as an ex officio member of the Board. In terms of the SANSA Act, Board members are appointed for a term not exceeding four years and are eligible for re-appointment for one further term thereafter. The Minister appointed the current Board members with effect from 01 September 2022. During the reporting period, the Board lost two Members, namely, Ms Mariam Paul who resigned from the SANSA Board effective from 25 April 2023 and Ms Lumka Msibi who resigned from the SANSA Board effective from 30 September 2023.

SANSA Board Members: 01 April 2023 – 31 March 2024

Table 16: Composition of the Board: 01 April 2023–31 March 2024

Name	Designation	Appointment Date	Termination Date	Qualifications	Area of Expertise	Board Directorships	Other Committees or Task Teams	No. of meetings attended
Mr Patrick Ndlovu	Board Chairperson	01/09/2022	-	MSc Eng. (Satellite-Based Communication, Navigation and Surveillance), BSc Eng (Electronics), Executive Development Programme, Management Development Programme, Program in Project Management	Engineering and Space Technology	Infinity Investments (Pty) Ltd; Infinity Aerospace (Pty) Ltd; Danebo Logistics (Pty) Ltd; Steelform Industries (Pty) Ltd	Not applicable	18
Mr Tlou Emmanuel Ramaru	Board Member	01/09/2022	-	BSc Honours, Degree Environmental Science, Total Quality Management Certificate, African Management Certificate, Community Based Natural Resource Management	Earth Observation and Communication	-	Strategy, Technology and Investment Committee; Human Resource and Social and Ethics Committee	10
Mr Benjamin Francois Denner	Board Member	01/09/2022	-	B.Eng (Electronic Engineering), MSc Development Studies	Engineering and Space Technology	The Enceladus Group (Pty) Ltd; Aerosud Holdings (Pty) Ltd; ZASpace NPO; Measuring Instruments Technology (Pty) Ltd; Denner Foundation Trust; Nebula Trust	Chairperson of the Strategy, Technology and Investment Committee	10

Name	Designation	Appointment Date	Termination Date	Qualifications	Area of Expertise	Board Directorships	Other Committees or Task Teams	No. of meetings attended
Ms Jessie Ndaba	Board Member	01/09/2022	-	BSc (Electrical)	Engineering and Space Technology	Astrofica Technologies (Pty) Ltd; Astrofica Telecomms (Pty) Ltd; Not operational JesTurc (Pty) Ltd; NdabaMakwane (Pty) Ltd	Strategy, Technology and Investment Committee; Human Resource and Social and Ethics Committee	17
Advocate Lindelwa Ndziba	Board Member	01/09/2022	-	BA Arts in Law, LLB, Certificates in Strategic HR Leadership, Professional Business Coaching and Leadership in Board Governance	Space law, Human Resources, and Governance	Martotex (Pty) Ltd	Audit and Risk Committee Strategy, Technology and Investment Committee	17
Advocate Lufuno Tokyo Nevondwe	Board Member	26/07/2022 Reappointed 01/09/2022	-	LLB; LLM in Human Rights Law	Space law, human resources, and governance	National Lotteries Participants Trust; Independent Development Trust (IDT); Agreement South Africa; Films and Publication Board (FPB); Nelson Mandela Museum; Woodhill Estate Homeowners Association; Govhani Forensic Investigation Services; Tshipapule Trading and Projects; Phusuphusu Security Services; Classy Living collection; University of Limpopo	Audit and Risk Committee Strategy, Technology and Investment Committee	17

Name	Designation	Appointment Date	Termination Date	Qualifications	Area of Expertise	Board Directorships	Other Committees or Task Teams	No. of meetings attended
Mr Molawa Ngoetjana	Board Member	01/09/2022	-	B.Eng Electronic Engineering, System Engineering & Management Course,	Engineering (space engineering, systems engineering/ project management, contract management/ finance etc.)	-	Strategy, Technology and Investment Committee	12
Mr Nkhangweni Lawrence Rambau	Board Member	01/09/2022	-	Finance and Auditing, Information Technology, Governance, Risk, Ethics, and Combined Assurance	EDP12, MBL, MIT, Dip IT, Dip IS, Cert IS, BA, Dip Ed.	Tenacity Science & Technology, Engineering & Mathematics (STEM) Foundation; Mukhuthu Arts & Cultural Foundation; Kopano Renewals (Pty) Ltd	Audit and Risk Committee; Human Resource and Social and Ethics Committee	18
Ms Charlotte Segage	Board Member	01/09/2022	-	Finance and Auditing, Information Technology, Governance, Risk, Ethics, and Combined Assurance	CA(SA), Bcompt Hons	Cashew Registered Auditors Inc	Chairperson of the Audit and Risk Committee Strategy, Technology and Investment Committee	14
Professor Azwinndini Muronga	Board	01/09/2018 Reappointed 01/09/2022	-	PhD (Physics); MSc (Physics); BSc (Mathematics and Physics); University Education Diploma	Physics and education	-	Audit and Risk Committee; Strategy, Technology and Investment Committee	14

Name	Designation	Appointment Date	Termination Date	Qualifications	Area of Expertise	Board Directorships	Other Committees or Task Teams	No. of meetings attended
Ms Lumka Msibi	Board Member	01/09/2018 Reappointed 01/09/2022	30/09/2023 (Resignation)	BSc (Aeronautical Engineering)	Aerospace engineering	AstroFarm Technologies	Audit and Risk Committee; Strategy, Technology and Investment Committee	3
Ms Mariam Paul	Board Member	01/09/2018 Reappointed 01/09/2022	25/04/2023 (Resignation)	MIng (Electrical and Electronics); B.Tech (Electrical and Electronics) MBA	Telecommu-nications and technology	-	Audit and Risk Committee; Strategy, Technology and Investment Committee	0
Ms Nomfuneko Majaja	Board Member	01/09/2018 Reappointed 01/09/2022	-	BCom (Hons); MA (Development Econ)	Government, legal and compliance (including space affairs and special economic zones); Industrial Policy and Strategy development	Ubuntu Guest House	Human Resource and Social and Ethics Committee	12

SANSA Board Members

Mr Patrick Ndlovu
Chairperson

Mr Tlou Ramaru

Professor Azwinndini Muronga

Ms Charlotte Segage

Mr Benjamin Francois Denner

Advocate Lindelwa Ndziba

Mr Nkhangweni Rambau

Mr Molawa Vincent Ngoetjana

Ms Jessie Ndaba

Advocate Lufuno Tokyo Nevondwe

Ms Nomfuneko Majaja

Board Chairs Committee Members and Meeting Attendance

Table 17: BCC attendance

	26/04/2023	05/05/2023	24/05/2023	31/05/2023	27/07/2023	28/07/2023	25/08/2023	14/09/2023	15/09/2023	05/10/2023	16/10/2023	24/10/2023	25/10/2023	08/12/2023	12/01/2024	15/01/2024	23/01/2024	23/02/2024
A Muronga	X	X	Y	X	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	X	Y
L Msibi	X	X	Y	Y	X	X	Y	X	X	N	N	N	N	N	N	N	N	N
N Majaja	Y	Y	Y	Y	Y	Y	Y	X	X	Y	Y	Y	Y	X	Y	X	X	X
L Nevondwe	Y	Y	Y	Y	X	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
H Mudau	Y	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	Y	Y	Y	Y	Y	Y
M Ngoetjana	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
N Rambau	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
F Denner	Y	Y	Y	Y	Y	Y	X	X	X	Y	Y	Y	Y	X	Y	Y	Y	Y
J Ndaba	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	X	Y	Y	Y
C Segage	Y	Y	Y	Y	Y	Y	Y	X	X	Y	Y	Y	Y	X	Y	Y	X	Y
T Ramaru	Y	Y	X	Y	X	Y	Y	Y	Y	X	X	X	X	X	Y	Y	Y	X
L Ndziba	Y	Y	Y	Y	Y	Y	X	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
P Ndlovu	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Y – Present X – Apology N – Not a member

Board Committees

Audit and Risk Committee

The establishment of the Audit and Risk Committee (ARC) complies with Sections 76(4)(d) and 77 of the PFMA and Section 3 of the National Treasury Regulations. As at 31 March 2024, the Committee consisted of five non-executive members and the Committee Chairperson was Ms Charlotte Mahlako Segage, as indicated in table that follows .

During the period under review Ms Mariam Paul who resigned from the SANSA Board effective from 25 April 2023 and Ms Lumka Msibi who resigned from the SANSA Board effective from 30 September 2023 ceased to be members of the Committee.

The ARC provides independent oversight over:

- The effectiveness of SANSA's internal control systems and functions, including the audit function,
- The management of SANSA's risks, and
- The adequacy, reliability, and accuracy of the financial information.

Table 18: ARC attendance

	Date of Meeting				
Member	**16/05/2023**	**03/07/2023**	**13/07/2023**	**17/10/2023**	**12/02/2024**
L Msibi	Y	X	Y	N	N
C Segage	Y	Y	Y	Y	X
L Ndziba	Y	Y	Y	Y	Y
N Rambau	Y	Y	Y	Y	Y
LT Nevondwe	Y	Y	Y	Y	Y

Y – Present X – Apology N – Not a member

Human Resources, Social and Ethics Committee

The Human Resources, Social and Ethics Committee (HRSEC) consisted of six non-executive members and the Executive Director: Enterprise Services as an ex-officio member as of 31 March 2024. Advocate Lindwelwa Ndziba served as Chairperson of the Committee.

The Committee assists the Board with oversight of matters relating to human resources, remuneration, code of conduct and social and ethics. The Committee is responsible for, among others:

- Ensuring that the Human Resources strategy supports the Agency's vision, mission, and associated activities,
- Overseeing human resource-related issues, including employee benefits, and succession planning, organisational design, and talent management.

Table 19: HRSEC attendance

Member	Date of Meeting			
	09/05/2023	10/07/2023	10/10/2023	06/02/2024
N Majaja	X	X	Y	X
H Mudau	Y	Y	Y	Y
S Mazibuko	Y	Y	Y	Y
L Ndziba	Y	Y	Y	Y
J Ndaba	Y	Y	Y	Y
LT Nevondwe	Y	Y	Y	Y
N Rambau	Y	Y	Y	Y
T Ramaru	X	X	X	X

Y – Present X – Apology N – Not a member

Strategy, Technology and Investment Committee

As at 31 March 2024, the Strategy, Technology and Investment Committee (STIC) consisted of six non-executive members, the CEO and Chief Financial Officer (CFO) as executive members. During the year under review, the Committee was left with six members following the resignation of members in 2023. Mr Benjamin Francois Denner was then re-instated to the STIC as a member on 23 February 2023.

The Committee assists the Board in discharging its responsibilities to, among others:

- Facilitate and oversee the strategic planning process,
- Ensure that the SP sets out performance priorities, and
- Ensure relevant resourcing of SANSA's strategic initiatives.

Table 20: STIC attendance

Member	Date of Meeting				
	11/05/2023	17/07/2023	18/10/2023	16/01/2024	08/02/2024
A Muronga	Y	Y	Y	Y	Y
L Msibi	Y	X	N	N	N
H Mudau	Y	Y	Y	Y	Y
B Jena	Y	Y	Y	Y	Y
M Ngoetjana	Y	Y	Y	Y	Y
F Denner	Y	Y	Y	Y	Y
J Ndaba	Y	X	X	Y	Y
C Segage	Y	Y	Y	Y	Y
T Ramaru	Y	Y	X	Y	Y

Y – Present X – Apology N – Not a member

Remuneration of Board Members

Board member remuneration is aligned with National Treasury guidelines on Remuneration of Board Members, as set out in the Annual Financial Statements. The Board is categorised at level A2, and Board members are paid to prepare for and attend meetings. Board members are furthermore reimbursed for travel costs (airfares, car hire and accommodation) and incidental expenses such as parking, train fares and the use of personal vehicles (reimbursed per kilometre as per the SANSA travel policy). Board members who represent other government departments or institutions (or who are in the employ of government) are not remunerated unless proof of permission to do remunerative work outside their normal official duties is submitted

Table 21: Board remuneration

Name	Remuneration (R)	Other Allowance	Other Reimbursements	Total (R)
Mr Patrick Ndlovu	347 567,74	-	-	347 567,74
Ms Charlotte Segage- Chairperson	119 354,00	-	-	119 354,00
Adv. Lindelwa Ndziba	142 372,00	-	-	142 372,00
Mr Nkhangweni Rambau	149 590,32	-	-	149 590,32
Adv. Lufuno Tokyo Nevondwe	114 942,92	-	-	114 942,92
Mr Francois Denner	100 787,00	-	-	100 787,00
Ms Nomfuneko Majaja	-	-	-	-
Ms Jessie Ndaba	136 915,12	-	-	136 915,12
Mr Molawa Ngoetjana	112 053,91	-	-	112 053,91
Prof. Azwinndini Muronga	92 067,00	-	-	92 067,00
Mr Tlou Ramaru	-	-	-	-
Ms Lumka Msibi	-	-	-	-

21. The **Executive** Committee

Mr Humbulani Mudau
Chief Executive Officer

Mr Brighton Jena
Chief Financial Officer

Ms Sibongile Mazibuko
Executive Director:
Enterprise Services

Ms Asanda Sangoni
Acting Executive Director:
Earth Observation

Mr Raoul Hodges
Executive Director:
Space Operations

Mr Jonathan Ward
Acting Executive Director:
Space Science

22. Risk Management

Risk Management Strategy

Risk management is concerned with the coordination of activities to direct and control an organisation with regard to risk. The Board has demonstrated its commitment to effective risk management by adopting an Enterprise Risk Management policy that is aligned with the Public Sector Risk Management Framework and Section 51 of the PFMA. Other frameworks of reference include ISO 31000:2018, COSO ERM Framework and King IV Report on Corporate Governance for South Africa, 2016. This provides a structured approach to managing risks, ensuring that the Agency is adequately positioned to respond to potential threats and opportunities.

The ARC provides oversight over the system of risk management through regular quarterly reporting, ensuring that potential risks are identified, assessed, and mitigated in a timely and effective manner. The comprehensive risk profile reports that are presented to the ARC outline progress in relation to strategic risk mitigation, as well as other key projects and strategic themes across SANSA.

Following approval by the Board during quarter 4, the Risk Management Committee Charter was established, outlining the committee's scope, responsibilities and composition. This committee will report directly to the ARC and be chaired by an independent Chairperson, ensuring objectivity and accountability. The Risk Management Committee will play a vital bridging role between the ARC and management, and ensure that risk management is integrated into every level of the organisation.

SANSA risk management process is built around two interconnected pillars: risk-informed decision-making, and continuous risk management. These interconnected processes are designed to foster a culture of risk awareness and resilience, enabling decision-makers at all levels to make informed choices that balance value creation and sustainability with long-term risk considerations.

Risk Assessments

SANSA has taken a holistic and forward-thinking approach to risk management, implementing a range of activities to identify, assess and mitigate potential risks, Key highlights from the year under review include:

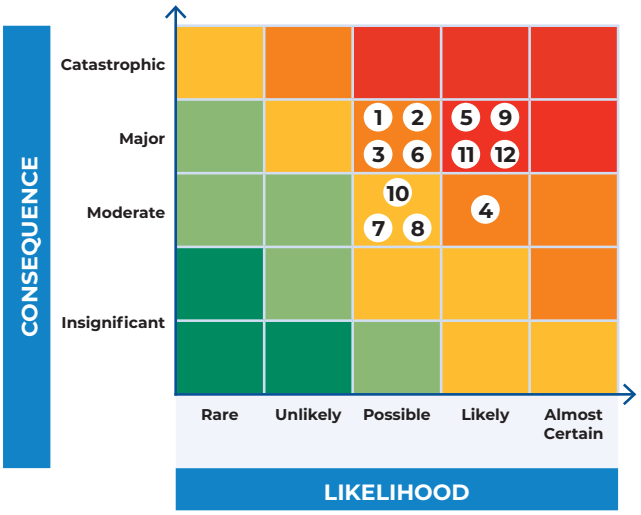
- **Strategic risk assessment:** A comprehensive review aligned with the Agency's strategic outcomes, ensuring risk management is integral to organisational strategic planning.
- **Operational risk assessment:** A collaborative and inclusive process engaging risk champions across all programs, fostering a culture of risk awareness and shared responsibility. This includes fraud risk assessment across all key processes, ensuring identification and mitigation of potential vulnerabilities.
- **Combined assurance:** A refined combined assurance model providing end-to-end assurance coverage for all strategic risks, with clear lines of accountability across the three lines of assurance, namely; management (first line), specialist functions (second line) and independent assurance providers (third line)
- **Business continuity:** Regular risk assessment and exercises to ensure resilience and continuity of the Agency's critical processes and systems, with a focus on continuous improvement and learning.

Risk management efforts have yielded significant benefits, with a risk maturity assessment tool evaluating the Agency's risk management framework as mature. SANSA remains dedicated to embedding a risk-aware culture across the Agency, ensuring that risk management is an integral part of the decision-making processes.

The strategic risk register for the year under review highlights 12 key risks facing the Agency. However, the slow pace of implementing action plans to address these risks presented some challenges, underscoring the need for enhanced risk management and mitigation strategies.

Table 22: Summary of SANSA strategic risk profile

Risk/Opportunity	Residual Risk	Risk Residual Profile
1. Decline in the generation and dissemination of new knowledge		
2. Disintegrated approach to industry development by the various role-players		
3. Reduced ability to generate, maintain and grow a pipeline of skills through youth engagement		
4. Inability by SANSA and the Space Industry to attract new and innovative skills generated through a "pipeline"		
5. Reduction in the use of South African space-based products and services		
6. Increased competitiveness and ability to access new markets		
7. Catastrophic damage, failure, and/or loss of technical infrastructure		
8. Cyber security threats		
9. Financial sustainability of SANSA		
10. Failure to recover after business disrupting event(s)		
11. Failure to develop an Operational Model aligned to the SANSA's mandate		
12. SANSA transformed to a igh performing organisation that responds to government imperatives and societal challenges		



23. Internal Controls

SANSA management is responsible for the achievement of the business objectives, which includes the design, implementation and monitoring of adequate and effective internal controls. Internal Audit focuses on the risk, governance, compliance and control processes of the organisation and is responsible for expressing an opinion on the adequacy and effectiveness of the internal controls within those processes. Internal Audit is not responsible for the implementation and related controls.

24. Internal Audit and Audit and Risk Committee

Internal Audit provides independent objective assurance and consulting services that cover a wide spectrum of activities that assess and improve the effectiveness of governance, risk management and internal control. The purpose, authority and responsibility of the Internal Audit function are formally defined in its Charter, which is reviewed on an annual basis and approved by the ARC.

Internal Audit developed a risk-based audit plan which was approved by the ARC. The completed audits in the year under review included the following areas:

- Quarterly Performance Information
- Financial Management
- Asset Management
- Revenue Management
- Supply Chain Management (SCM)
- Human Resource Management
- Governance
- Enterprise Risk Management

Internal Audit provides recommendations to management with regard to internal controls, risk management and governance processes. A follow-up on agreed management actions is performed quarterly. Progress on implementation of corrective action is further monitored by the Executive Committee and ARC.

The SANSA's Internal Audit Unit has adopted a co-sourced model whereby the organisation makes use of an internal audit service provider as well as an in-house audit team to meet the responsibilities of the unit. RAiN Chartered Accountants was appointed on 01 September 2022 to provide capacity and resources during the execution of audits.

The Audit Committee is responsible for playing an oversight role and monitoring the effectiveness of internal control, particularly financial controls and risk management; compliance with legislation and regulations and the review of the Annual Financial Statements. Internal Audit reports to the Committee on a quarterly basis and submits written annual assessments for the year.

25. Compliance with **Laws and Regulations**

Governance priorities for SANSA are centred on promoting a culture of sound internal controls, policies, and procedures that reach far beyond mere legal compliance. The development and implementation of effective risk management and compliance systems to drive the achievement of the Agency's strategic outcomes and a continued focus on compliance with all applicable laws remained key during the financial year.

26. Fraud and **Corruption**

During the year under review, SANSA took a significant step towards strengthening its fraud prevention policy by appointing a service provider for the management of the fraud and ethics hotline. This strategic move ensured more attention to the issues of reporting and managing reported suspected fraud cases, demonstrating SANSA's commitment to transparency and accountability.

The Agency successfully migrated to the new Hotline, which offers a diverse range of reporting channels, including email, social media, SMS, a dedicated mobile application, and an online portal. This multi-faceted approach enables employees and stakeholders to report fraudulent activities conveniently and anonymously, promoting a culture of ethical conduct.

To further reinforce this initiative, SANSA conducted a comprehensive fraud awareness roadshow across all the SANSA sites. This engaging and interactive campaign aimed to educate employees on the risks and consequences of fraud, as well as the importance of reporting suspicious activities. By raising awareness and promoting a zero-tolerance policy towards fraud, SANSA continues to safeguard the organisation's integrity and reputation.

27. Minimising Conflict of **Interest**

SCM Processes to Minimise Conflict of Interest

There are three SCM Committees which SANSA employees serve on, namely: Bid Specification Committee, Bid Evaluation Committee, and a standing Bid Adjudication Committee comprising Executives. Employees serving on these committees are required to declare the extent of their conflict of interest in writing, prior to the commencement of the committee meeting. Depending on the nature of the conflict of interest, members can either continue with participation in the discussion or recuse themselves from participating in the discussion and activities of the committee.

28. Code of **Conduct**

SANSA subscribes to the principles of sound ethical conduct in all its internal and external stakeholder engagements. This is aimed at maintaining high levels of professionalism, transparency, and accountability across the Agency to guide ethical decision – making. Furthermore, all SANSA employees are required to adhere to the Code of Conduct and declare their interest on an annual basis.

29. Health, Safety and Environmental **Issues**

Environmental Stewardship

SANSA is committed to minimising its impact on the environment and maximising its responsible use of natural resources. SANSA ensures that operational activities enhance the natural environments capacity to meet the resource needs for future generations by monitoring resource consumption and encouraging preservation.

30. Board **Secretary**

The Board Secretary is accountable to the board. The Board Secretary's duties include, but are not restricted to:

- Providing the directors of SANSA collectively and individually with guidance as to their duties, responsibilities and powers;
- Making the directors aware of any law relevant to or affecting SANSA;
- Reporting to the board any failure on the part of SANSA or a director to comply with SANSA policies or the SANSA Act;
- Ensuring that minutes of all board meetings and the meetings of any committees of the directors, or of audit and risk committee, are properly recorded in accordance with the board and board committees' charters;
- Ensuring that a copy of SANSA's Annual Financial Statements is sent to every person who is entitled to it;
- Assisting the Chairperson in determining the Annual Calendar and Annual Board Plan and other issues of an administrative nature; and
- Ensuring the induction of new and inexperienced Board members and, together with the Chairperson of the Board, developing mechanisms for providing continuous education and training for all Board members to improve and maintain the effectiveness of the Board.

31. Social **Responsibility**

SANSA Donates 5000L Water Tank to Foster Rain Harvesting

During the National Water Month March 2024, SANSA donated a 5000l water tank to Skeerpoort Primary in the North Westto encourage rain harvesting at the school. Rainwater is critical for irrigation at the school's new vegetable garden which was also donated by SANSA during Arbor Month 2023.

SANSA donates Jojo tank

32. Audit and Risk Committee Report

We are pleased to present our report for the financial year ended 31 March 2024.

Audit and Risk Committee Responsibility

Introduction

The Audit and Risk Committee (ARC) is a statutory committee of the SANSA Board. All its members, including the Chairperson are independent non-executive members of the Board. The Chairperson and members are appointed by the Board for the period of the terms of appointments.

Responsibilities

The ARC hereby reports that as an independent statutory committee of the SANSA Board, it has complied with its responsibilities arising from Section 51 (1)(a)(ii) of the Public Finance Management Act and Treasury Regulation 27.1. The ARC further reports that it has adopted appropriate formal terms of reference as its ARC Charter. It has regulated its affairs in compliance with this charter and has discharged all its responsibilities as contained therein during the period under review.

The purpose of the ARC is to assist the Board in the effective execution of its responsibilities; and in fulfilling its oversight responsibility on the system of internal control, the governance of risk, internal and external audit functions and SANSA's processes for monitoring statutory and regulatory compliance. The ARC has performed the following duties inter alia over the reporting period as guided by its Charter:

- Reviewed all significant audit findings and monitored management's responses to these findings.
- Reviewed the adequacy of the ARC's Charter, for recommendation to the Board for approval.
- Conducted a review of the effectiveness of SANSA's internal control systems.
- Ensured that key financial and risk matters in relation to execution of SANSA's mandate were adequately covered as part of the scope for internal and external audits.
- Exercised adequate oversight over the entity's compliance with applicable legal and regulatory transcripts; including but not limited to provisions of the SANSA Act, National Treasury Regulations as well as the PFMA.
- Exercised oversight over activities of the Internal Audit, Finance and Enterprise Risk Management Units including development and/or review of requisite key strategies, annual work plans, governance reports and effective coordination of management responses and implementation of action plans to address audit recommendations.

ARC Members and Attendance

The ARC consists of the members as stated on page 78 of this report. In accordance with its approved ARC Charter, the Committee convened at least four meetings during the year under review. The meetings and schedule of attendance is shown on page 78 of this report.

The Chief Executive Officer, Chief Financial Officer, Executives, and Management of SANSA as well as representatives of the external and internal auditors attended the ARC meetings by invitation. The ARC has also periodically met separately with external auditors and internal auditors. The internal and external auditors have unrestricted access to the ARC. The Chairperson of the ARC reports to the Board, after each Committee meeting, on key issues which have been raised and discussed by the Committee.

External Auditors

In execution of its statutory duties during the past financial year, the ARC:

- Supported the appointment of A2AKopano Incorporated for Board approval and concurrence with the Auditor-General of South Africa.
- Determined the fees to be paid to external auditors as disclosed in note 24 of the Annual Financial Statements.
- Determined the terms of engagement with external auditors.
- Approved the Audit Strategy.

Based on the processes followed and assurances received by the ARC, nothing has come to our attention regarding the external auditors' objectivity and independence. It has been encouraging to note cordial relations and transparency in relation to the exchange of information and communication between the ARC, SANSA Board, EXCO and the External Auditors in the execution of the 2023/24 audit processes.

Finance Function

The Committee is satisfied with the expertise and adequacy of resources within the finance function. In making these assessments, the ARC obtained feedback from management as well as external and internal auditors in relation to notable improvements in the quality of Annual Financial Statements and generally sound systems of internal control within the finance and supply chain management functions.

Risk Management

Oversight over risk management across the entity is the responsibility of the ARC. The SANSA system of risk management entails the following areas amongst others:

(i) Strategic Risk Management;
(ii) Operational Risk Management;
(iii) Combined Assurance;
(iv) Business Continuity Management;
(v) Measures for the prevention, investigation and reporting of irregular expenditure, fruitless and wasteful expenditure; and
(vi) Fraud Management and Whistle Blowing investigations. A register of reported cases and status updates was kept by management and disclosed through quarterly reporting to the ARC and Board.

The ARC has received assurances that SANSA has risk management processes focused on identifying, assessing, managing, and monitoring significant risks across all operations. The Committee reviewed and recommended the Strategic Risk Register to the Board for approval; quarterly oversight was provided in relation to the implementation of the action plans, as well as key strategic areas/projects.

The ARC provided oversight over the implementation of a Business Continuity Management System (BCMS). This entailed the development and adoption of the Business Impact Analysis, business continuity-related risk assessment, business continuity strategies and solutions, and the Business Continuity Plans across SANSA.

The Business Continuity Plans were exercised during the financial year and thus providing assurance in relation to business resilience. The above processes have been in place for the year under review and up to the date of approval of the 2023/24 Annual Financial Statements. The ARC also recommended to the Board the approval of the Strategic Risk Register, the Combined Assurance Model and provided oversight on the implementation of the action plans thereof.

It is our view that SANSA has an effective, efficient, and transparent system of risk management.

Internal Audit

In executing its statutory duties during the past financial year, the ARC:

- Reviewed and approved the Internal Audit Charter and its risk-based audit plan;
- Reviewed and noted internal audit reports and progress on its risk-based plan on a quarterly basis; and
- Reviewed the independence of the Internal Audit function which reported functionally to the ARC with unrestricted access to the ARC Chairperson.

The SANSA Internal Audit Unit has adopted an outsourced model whereby the organisation makes use of an internal audit service provider as well as an inhouse audit to meet the responsibilities of the unit. Rain Chartered Accountants was appointed on 01 September 2022 for a period of 5 years to provide capacity and resources during the execution of audits. We are satisfied with the adequacy of the resources in the internal audit function.

We are satisfied with the activities of the internal audit function, including its annual work programme and quality assurance. Internal Audit provides recommendations to management with regards to internal controls, risk management and governance processes.

The Internal Audit Function will be undergoing the external quality assurance review in the next financial year. The ARC is satisfied with the quality of the reports tabled by internal auditors on a quarterly basis during the period under review and it is of the opinion that the internal audit function is effective.

Information and Communication Technology

The ARC is satisfied with SANSA's ICT capability and that its ICT controls are appropriate to support the integrity of financial reporting. This is based on the ARC's continuous review of ICT Governance reports from EXCO. The Committee notes the rapidly growing technology footprint within the SANSA through the ongoing execution of large transformation projects and the replacement of legacy systems in line with SANSA's strategic objectives.

The Effectiveness of Internal Control

The ARC has reviewed:

- The effectiveness of the entity's internal financial control systems, including receiving assurance from management, internal audit, and external audit.
- Significant issues raised by the internal and external audit process, including the manner in which they were/are being resolved.

Overall SANSA's system of internal control and risk management is considered to be effective and transparent as there were no material deficiencies brought to the ARC's attention.

Going Concern

The ARC reviewed and considered the EXCO's assessment of going concern and recommendation to Board. The Committee supports the going concern assumption in the preparation of the 2023/24 Annual Financial Statements as appropriate.

Annual Financial Statements, Information of Predetermined Objectives and Compliance With Laws and Regulations

The ARC has reviewed:

- The audited SANSA Annual Financial Statements for the year ended 31 March 2024 and is satisfied that these are in compliance with South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) and the requirements of the PFMA, to be included in the Annual Report, with the external auditor's report.
- The external auditor's letter to management and latter's response to it.
- Reported information on predetermined objectives to be included in the Annual Report.
- Considered the applicability of the going concern assumption (as noted above).
- SANSA's compliance with legal and regulatory provisions.

Auditor's Report

The ARC concurs with the Report of the External Auditors. We would like to commend Management for maintaining a clean audit outcome.

Annual Report

Based on the processes and assurances obtained, we recommend the Annual Report to the Board for approval.

Ms Charlotte Segage
Chairperson of the Audit and Risk Committee
South African National Space Agency
31 July 2024

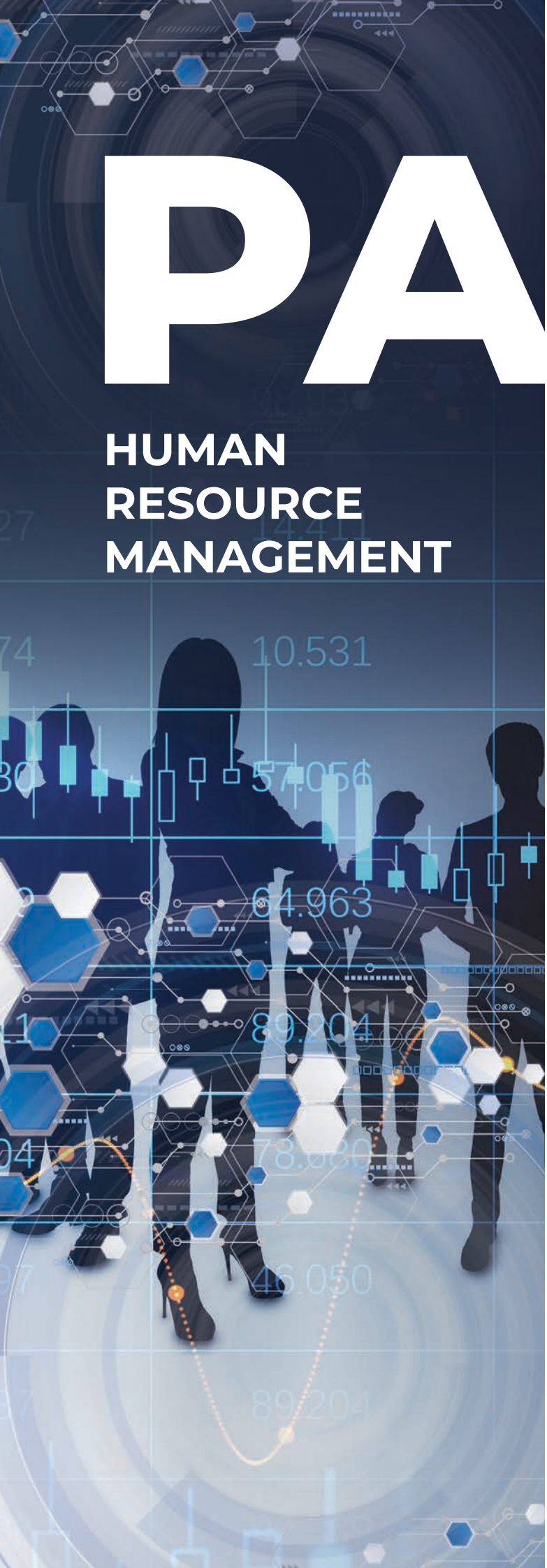
33. B-BBEE Compliance Performance Information

Table 23: SANSA B-BBEE compliance

Has the Public Entity applied any relevant Code of Good Practice (B-BBEE Certificate Levels 1 – 8) with regards to the following:		
Criteria	**Response Yes / No**	**Discussion (SANSA responses/measures taken to comply)**
Determining qualification criteria for the issuing of licences, concessions, or other authorisations in respect of economic activity in terms of any law?	No	This requirement is not aligned to the SANSA legislative mandate
Developing and implementing a preferential procurement policy?	Yes	The entity's SCM policy has been aligned to the requirements of the Preferential Procurement Policy Framework Act (PPPFA) and the latest Preferential Procurement Regulation (PPR)
Determining qualification criteria for the sale of state-owned enterprises?	No	This requirement is not aligned to the SANSA legislative mandate
Developing criteria for entering into partnerships with the private sector?	No	SANSA utilizes the criteria provided in Treasury Regulation 16 which is aligned to the SCM policy
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad Based Black Economic Empowerment?	No	N/A

PART D

HUMAN RESOURCE MANAGEMENT



34. Overview of SANSA Human Resource Matters

Introduction

The 2023/24 financial year marked a critical period at SANSA, characterised by significant leadership changes and transitions between remote and office-based work, employees who used to work from home during the COVID-19 pandemic had to readjust in having to come back to the office. Following the loss of a senior manager and the appointment of a new CEO, employees navigated transitions from remote to office-based work, supported by Human Resources (HR) in accelerating their productivity. Globally, workplace stress has seen a concerning increase, prompting organisations to prioritise employee well-being more than previously. This shift necessitated a move from siloed support functions to consolidated efforts, aimed at supporting organisational stability through strategic change interventions and ensuring accommodations for affected individuals.

Human resource management activities are ongoing across all SANSA Programmes and worksites and are informed by the Organisational Strategic Plan and key HR deliverables for the current financial year. It is recognised within the organisation that the HR function is a key enabler in ensuring a productive, healthy, and skilled workforce with which SANSA can deliver on its mandate and become a high-performing agency.

Human Resource Priorities for the 2023/24 Financial Year

Change Management

SANSA has initiated a rollout of its new set of values and intends to enhance familiarity and understanding of these values across the Agency through a Values Activation Campaign in the 2024/25 financial year.

The Campaign aims to establish a consistent and coherent presence of the new values by encouraging employees to align with the behaviours associated with each value through their active participation in various activations. The campaign's objectives include ensuring employees grasp the significance of the values, creating engaging and enjoyable activities to living the values, fostering full participation and engagement across SANSA, and cultivating pride and a sense of belonging.

The activations will take place throughout 2024 and will be led by an external facilitator. These events will be themed around the values and will be conducted both online and in person at all three SANSA sites.

Salary Parity

SANSA processed through phase 2 of its Salary Parity Project, which includes several key components aimed at ensuring fair and competitive remuneration practices:

- Designing of the Pay Progression Model: The service provider completed the draft design of the Pay Progression Model. This design will be presented to the EXCO for their input before implementation.
- Development of a Rewards Charter: A Rewards Charter was developed to outline the principles and guidelines for rewarding employees within SANSA.
- Review and refinement of the Remuneration and Reward Policy: The Remuneration and Rewards Policy is undergoing final stages of review to ensure alignment with best practices and organisational goals.
- Redesigning of the current Remuneration Table: The current Remuneration Table has been redesigned to align with the market and reflect updated policy guidelines.
- Review of the current performance incentive scheme and the Performance Management Policy: The performance incentive scheme and Performance Management Policy are under review to ensure they are aligned with the overall remuneration strategy and organisational objectives.

Once finalised, all these policies and guidelines will be presented to employees, EXCO, and the Board for approval. The aim of these efforts is to ensure that SANSA's remuneration practices are fair, competitive, and aligned with its strategic objectives.

Business Model Implementation

The Safety, Health, Environment Quality department and Informatio Communication Technology (ICT) were in the process of being centralised. The ICT team consultations took place and a report was prepared. This report contains details of the consultations, highlights concerns raised by the ICT team regarding centralisation, and contains a plan on how the centralisation should take place. This report awaits EXCO's guidance on the way forward.

Employee Engagement Survey

SANSA recently conducted an Employee Engagement Survey, facilitated by Mthente Consulting. A total of 148 employees participated in the survey, providing valuable feedback on various aspects of their engagement with the organisation.

The survey results have been compiled into a final report, which will be presented to the EXCO in early April and to the Board in May. The feedback from the survey will help SANSA gain insights into employee satisfaction, identify areas for improvement, and develop strategies to enhance employee engagement and overall organisational performance.

Workforce Planning Framework

SANSA has established an integrated Talent Management Framework, which has received approval for implementation. This framework serves as a strategic guide to aligning the organisation's workforce with its long-term objectives. Key components of the framework include:

- Skills Assessment and Development: A comprehensive Skills Audit was commissioned across SANSA to assess the current skills landscape within the organisation. This audit will provide valuable insights to identify any skills gaps and inform targeted development initiatives.
- Workforce Planning: Based on the findings of the Skills Audit, SANSA will develop a five-year workforce plan to address identified skill deficiencies and ensure alignment with strategic goals.
- Talent Pool Development: The identification and nomination process for the Talent Pool have been finalised. Executives are actively reviewing critical roles and identifying potential successors from the talent pool. These candidates will undergo mentoring and coaching initiatives to enhance their skills and readiness for future leadership positions.
- Individualised Learning and Development: Learning and Development initiatives are prioritised to meet employees' aspirations for career advancement. By investing in internal talent development, SANSA demonstrates its commitment to employee growth, happiness, and retention.

Strategies to Recruit, Retain and Develop a Skilled and Capable Workforce

SANSA's strategies to recruit, retain, and develop a skilled workforce are anchored in its Talent Management Framework and aligned with its organisational objectives:

- Skills Audit: Leveraging insights from the Skills Audit, SANSA will tailor recruitment strategies to attract candidates with the required skills and competencies. Additionally, targeted training programs will be developed to upskill existing employees and bridge any identified skill gaps.
- Talent Pool Development: The talent pool serves as a pipeline for future leadership positions within SANSA. By providing mentoring, coaching, and structured development plans, the organisation ensures that high-potential employees are equipped with the necessary skills and experiences to thrive in advanced roles.
- Employee Engagement and Retention: Investing in individualised learning and development opportunities fosters employee satisfaction and loyalty. SANSA's commitment to employee growth and career progression enhances retention rates and strengthens the organisation's talent pipeline.
- Continuous Monitoring and Evaluation: Regular monitoring of progress, through mechanisms such as quarterly reviews and "portfolios of evidence," ensures that development initiatives remain effective and aligned with organisational needs. Adjustments can be made as necessary to optimise outcomes and drive continuous improvement.

By implementing these strategies, SANSA aims to cultivate a skilled, motivated, and adaptable workforce capable of driving the organisation's success in a dynamic operating environment.

Employee Performance Management Framework

SANSA's performance management framework is used to monitor the productivity of employees. The framework ensures the to alignment of individual goals with business goals and clarifies expectations.

SANSA's performance management framework is not static. It evolves with the business and employee needs. As such, SANSA has designed an automated Performance Management System, with the assistance of an external service provider. The System makes contracting, delivering continuous feedback and performance reviews easier. Managers can upload information and employees can log in at any time to get the feedback they require. Employees have been trained to use the system and HR is readily available to assist employees where required. All employee performance contracts have been uploaded to the system for approval and consultation with their respective managers. However, the final performance assessments will still be done manually for 2023/24 financial year.

Employee Wellness Programmes

SANSA places a high value on promoting work-life balance and prioritising the well-being of its employees and their dependents. As part of our commitment to supporting their holistic health, SANSA provides access to an Employee Assistance Program (EAP). The EAP offers professional support 24/7 via telephone, ensuring confidentiality and accessibility whenever needed. Services available through the EAP include support from experienced wellness practitioners, counselling services with specialised support, financial wellness guidance, and legal wellness assistance.

The graph below illustrates the utilisation of EAP services throughout the 2023/24 reporting period. It highlights the months in which services were predominantly accessed, providing valuable insights into the fluctuating wellness needs of employees and their dependents over time.

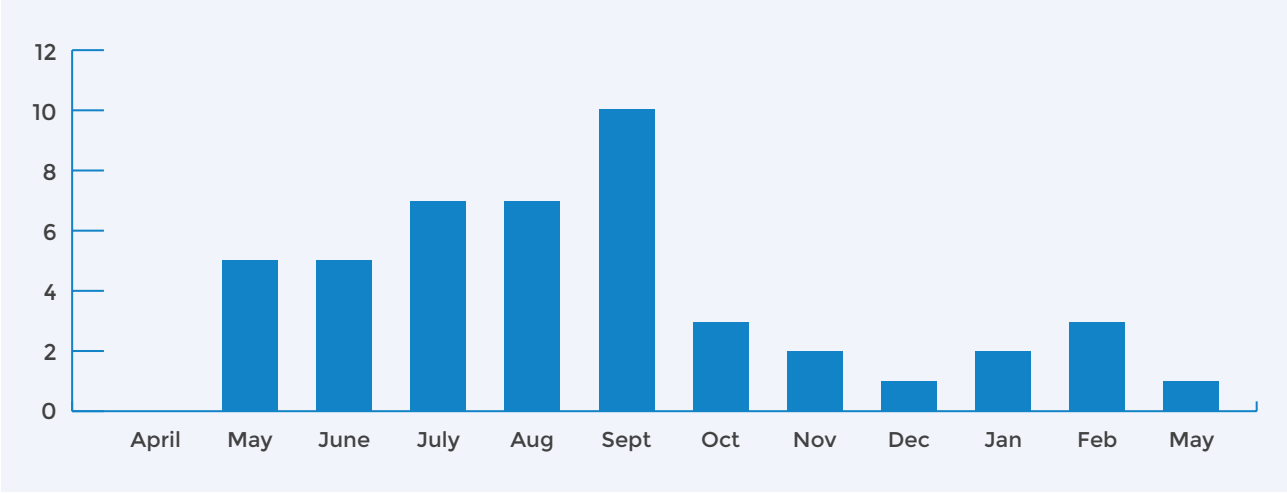


Figure 22: Number of new cases

Similarly, the following graph showcases the types of services that were predominantly accessed during the reporting period. This data offers a breakdown of the specific wellness areas where employees and their dependents sought support the most, guiding future programme enhancements and resource allocations.

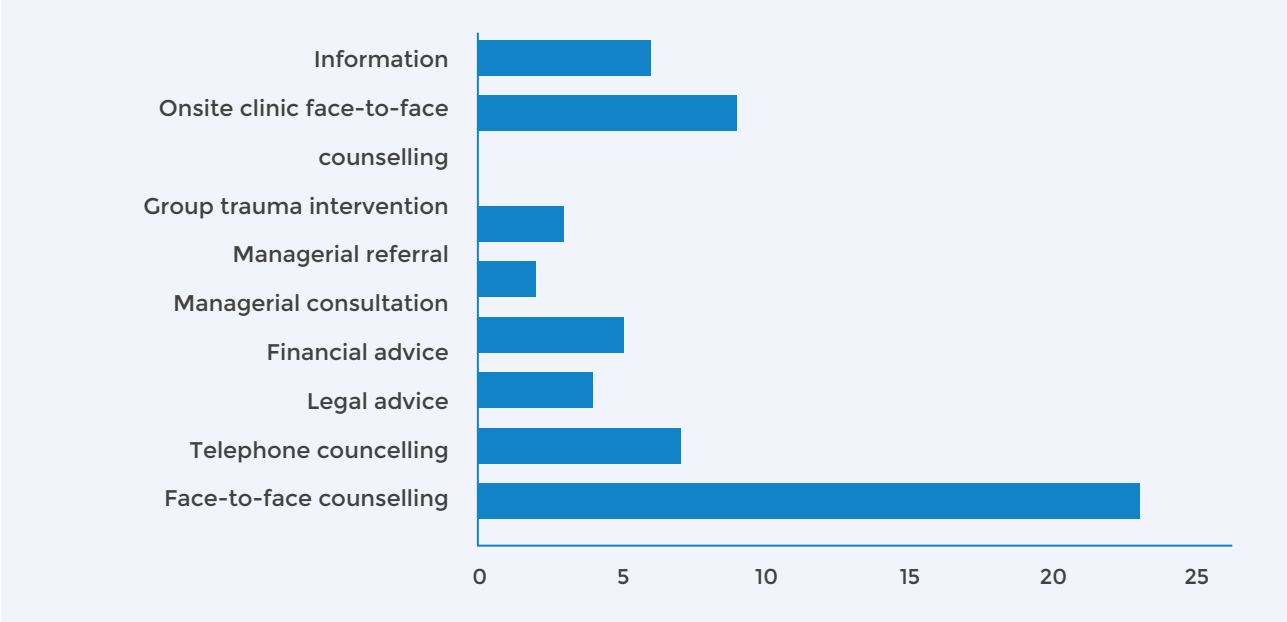


Figure 23: Type of service

The Employee Wellness Program at SANSA continues to serve as a vital resource for supporting the well-being of the employees and their families. By providing comprehensive and confidential support across various wellness domains, the aim is to foster a healthy and thriving workplace environment where employees can succeed both personally and professionally. Moving forward, SANSA remains committed to leveraging insights from utilisation data to continually enhance and tailor the wellness initiatives to meet the evolving needs of employees.

Human Resource Policy Development

HR reviewed several HR policies to ensure alignment with current practice and legislation as part of good governance.

Key Highlights for the Year

SANSA successfully launched a new set of organisational values and initiated plans for a Values Activation Campaign in 2024 to embed these values across the Agency.

Significant progress was made in talent management, including the appointment of a supplier for a comprehensive Skills Audit and the finalisation of nominations for the Talent Pool. Mentoring and coaching initiatives are planned for talent pool candidates to support their development.

An automated Performance Management System was designed and implemented, enhancing the efficiency of contracting, feedback delivery, and performance reviews. Training was provided to employees, and all performance contracts were uploaded onto the system. Phase 2 of the Salary Parity Project progressed, with the design of the Pay Progression Model nearing completion and the refinement of related policies underway. These efforts aim to ensure equitable compensation and reward structures across SANSA

Overview of Key Challenges

Shortage of Resources and Key Vacancies: SANSA faced challenges due to a shortage of resources and key positions remaining vacant, leading to employees being overloaded with additional work.

Human Resource Future Plans

Values Activation Campaign: SANSA plans to continue the Values Activation Campaign throughout 2024, focusing on creating a consistent and coherent presence of the new values through various activations aimed at fostering understanding and alignment.

Rationalisation of Policies: Efforts to consolidate and review HR policies will continue.

Talent Management: Following the completion of the Skills Audit and finalisation of the Talent Pool nominations, SANSA will focus on implementing mentoring and coaching initiatives for talent pool candidates and developing formal development plans to support their growth.

Performance Management Enhancement: Future plans involve optimising the automated Performance Management System, ensuring effective utilisation by managers and employees, and exploring opportunities for further automation and efficiency improvements.

35. Human Resource Oversight Statistics

Personnel Related Expenditure

Personnel Cost by Programme

Table 24: Personnel cost by programme

Programme	Total Expenditure for the Entity (R'000)	Personnel Expenditure (R'000)	Personnel Expenditure as a % of Total Expenditure (R'000)	Number of employees	Average Personnel Cost per Employee (R'000)
Programme 1: Administration	123 925	73 506	59.3%	70	1 050
Programme 2: Earth Observation	62 615	30 070	48.0%	25	1 203
Programme 3: Space Science	75 804	38 354	50.6%	60	639
Programme 4: Space Operations	95 858	39 774	41.5%	54	737
Programme 5: Space Engineering	7 104	6 067	85.4%	4	1 517
Total	**365 306**	**187 772**	**51%**	**213**	**5 146**

Performance Rewards

Table 25: Performance rewards

Programme	Performance Rewards (R'000)	Total Personnel Expenditure (R'000)	% of Performance Rewards to Total Personnel Expenditure (R'000)
Programme 1: Administration	4 575	123 925	3.7%
Programme 2: Earth Observation	1 541	62 615	2.5%
Programme 3: Space Science	2 359	75 804	3.1%
Programme 4: Space Operations	2 168	95 858	2.3%
Programme 5: Space Engineering	260	7 104	3.7%
TOTAL	**10 903**	**365 306**	

Training Costs

Table 26: Training costs

Programme	Total Personnel Expenditure (R'000)	Total Training Expenditure (R'000)	Training Expenditure as a % of Personnel Total Expenditure	No. of Employees Trained	Average Training Cost per Employee (R'000)
Programme 1: Administration	73 506	1 840	2.5%	70	26
Programme 2: Earth Observation	30 070	624	2.1%	25	25
Programme 3: Space Science	38 354	261	0.7%	60	4
Programme 4: Space Operations	39 774	-	0.0%	54	-
Programme 5: Space Engineering	6 067	-	0.0%	4	-
Total	**187 772**	**2 725**	**1%**	**213**	**56**

Employment and Vacancies

Table 27: Employment and vacancies per programme

Programme	2022/23 No. of Employees	2023/24 Approved Posts	2023/24 No. of Employees	2023/24 Vacancies	% of Vacancies
Programme 1: Administration	66	82	70	8	10%
Programme 2: Earth Observation	28	53	25	28	53%
Programme 3: Space Science	67	71	60	11	15%
Programme 4: Space Operations	48	68	54	12	18%
Programme 5: Space Engineering	4	27	4	23	85%
Total	**213**	**301**	**213**	**82**	**27%**

The preceding table includes interns paid for by SANSA and those interns partially externally funded. The table reflects the vacancy rate as a percentage of approved positions. The tableincludes funded and unfunded positions. Many vacancies are planned for and will only be filled when the funding for specific projects is secured. Budget constraints are still a reality in terms of filling vacancies. Three Executive positions are vacant, recruitment for these positions is underway. They are occupied on an acting capacity in the interim.

Employment Changes

Table 28: Employment changes

Level	Employment at Beginning of 2023/24 FY	Appointments	Terminations	Employment at End of the 2023/24 FY
Top Management	1	1	0	1
Senior Management	6	0	1	5
Professional Qualified	67	7	6	68
Skilled	105	0	1	104
Semi-skilled	16	0	0	16
Unskilled	19	0	0	19
Total	**213**	**8**	**8**	**213**

Reason for Employees Leaving

Table 29: Reason for employees leaving

Reason	Number of Employees	% of Total No. of Employees Leaving
Death	2	0.9%
Resignation	4	1.9%
Dismissal	0	0%
Retirement	0	0%
Ill health	0	0%
Expiry of contract	2	0.9%
Other	0	0
Total	**8**	**3.8%**

Labour Relations: Misconduct and Disciplinary Action

Table 30: Labour relations: Misconduct and disciplinary action

Nature of Disciplinary Action	Number
Verbal Warning	0
Written Warning	0
Final Written Warning	0
Dismissal	0

Employment Equity Status

Table 31: Employment equity status

Level	Male							
	African		Coloured		Indian		White	
	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	7	1	0	0	0	0	1	0
Senior Management	1	0	0	0	0	0	1	0
Professional Qualified	18	17	5	0	5	0	15	0
Skilled	32	37	4	7	2	0	7	0
Semi-skilled	8	0	0	0	0	0	1	0
Unskilled	5	0	0	0	0	0	0	0
Total	**71**	**55**	**9**	**7**	**7**	**0**	**25**	**0**

Level	Female							
	African		Coloured		Indian		White	
	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	0	0	0	0	0	0	0	0
Senior Management	2	0	0	0	0	0	0	0
Professional Qualified	13	18	1	0	5	0	5	0
Skilled	42	41	9	0	1	0	6	0
Semi-skilled	7	0	1	0	0	0	0	0
Unskilled	13	0	1	0	0	0	0	0
Total	**77**	**59**	**12**	**0**	**6**	**0**	**11**	**0**

Level	Disabled Employees			
	Male		Female	
	Current	Target	Current	Target
Top Management	0	0	0	0
Senior Management	0	0	0	0
Professional Qualified	1	0	1	0
Skilled	0	1	0	1
Semi-skilled	1	1	1	1
Unskilled	0	1	0	1
Total	**2**	**3**	**2**	**3**

The overall Equity Employment (EE) implementation progress for 2023/24 has been successful, with most occupational levels meeting or exceeding their targets. The focus for the 2024/25 financial year will be on maintaining the achieved representation levels and ensuring sustained progress in areas where targets were not fully met.

PART E

PFMA COMPLIANCE REPORT

36. Information on Irregular, Fruitless and Wasteful Expenditure and Material Losses

Irregular Expenditure

a) Reconciliation of irregular expenditure

Description	2023/24 R'000	2022/23 R'000
Opening balance	2 222	2 222
Adjustment to opening balance	-	-
Opening balance as restated	-	-
Add: Irregular expenditure confirmed	-	-
Less: Irregular expenditure condoned	-	-
Less: Irregular expenditure not condoned and removed	-	-
Less: Irregular expenditure recoverable	-	-
Less: Irregular expenditure not recovered and written off	-	-
Closing balance	**2 222**	**2 222**

Reconciling notes

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure that was under assessment	-	-
Irregular expenditure that relates to the prior year and identified in the current year	-	-
Irregular expenditure for the current year	-	-
Total	**-**	**-**

b) Details of current and previous year irregular expenditure (under assessment, determination, and investigation)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure under assessment	-	-
Irregular expenditure under determination	481	481
Irregular expenditure under investigation	-	-
Total	**481**	**481**

c) Details of irregular expenditure condoned

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure condoned	-	-
Total	**-**	**-**

d) Details irregular expenditure removed – (not condoned)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure NOT condoned and removed	-	-
Total	**-**	**-**

e) Details of irregular expenditure recoverable

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure recoverable	-	-
Total	**-**	**-**

f) Details of irregular expenditure written off (irrecoverable)

Description	2023/24 R'000	2022/23 R'000
Irregular expenditure written off	-	-
Total	**-**	**-**

Additional disclosure relating to Inter-Institutional Arrangements

g) Details of non-compliance cases where an institution is involved in an inter-institutional arrangement (where such institution is not responsible for the non-compliance)

Description	
SANSA had zero (0) non-compliance cases where the entity was involved in an inter-institutional arrangement.	-
Total	**-**

h) Details of irregular expenditure where an institution is involved in an inter-institutional arrangement (where such institution is responsible for the non-compliance)

Description	
SANSA had zero (0) irregular expenditure where the entity was involved in an inter-institutional arrangement.	-
Total	**-**

i) Details of current and previous year disciplinary or criminal steps taken as a result of irregular expenditure

Description	
Details of current and previous year disciplinary or criminal steps taken as a result of irregular expenditure	-
Total	**-**

Fruitless and Wasteful Expenditure

a) Reconciliation of fruitless and wasteful expenditure

Description	2023/24 R'000	2022/23 R'000
Opening balance	-	-
Adjustment to opening balance	-	-
Opening balance as restated	-	-
Add: fruitless and wasteful expenditure confirmed	-	-
Less: fruitless and wasteful expenditure recoverable	-	-
Less: fruitless and wasteful expenditure not recoverable and written off	-	-
Closing balance	**-**	**-**

SANSA did not have fruitless and wasteful expenditure during the financial year.

Reconciling notes

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure that was under assessment	-	-
Fruitless and wasteful expenditure that relates to the prior year and identified in the current year	-	-
Fruitless and wasteful expenditure for the current year	-	-
Total	**-**	**-**

b) Details of fruitless and wasteful expenditure (under assessment, determination, and investigation)

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure under assessment	-	-
Fruitless and wasteful expenditure under determination	-	-
Fruitless and wasteful expenditure under investigation	-	-
Total	**-**	**-**

SANSA did not have fruitless and wasteful expenditure (under assessment, determination, and investigation) in the current and previous year.

c) Details of fruitless and wasteful expenditure recoverable

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure recoverable	-	-
Total	**-**	**-**

There was no fruitless and wasteful expenditure recovered in the current and previous year.

d) Details of fruitless and wasteful expenditure not recoverable and written off

Description	2023/24 R'000	2022/23 R'000
Fruitless and wasteful expenditure written off	-	-
Total	**-**	**-**

There was no fruitless and wasteful expenditure recovered and written off in the current and previous year.

e) Details of disciplinary or criminal steps taken as a result of fruitless and wasteful expenditure

Disciplinary steps taken	
Disciplinary steps taken	-
Total	**-**

SANSA did not take disciplinary or criminal steps as a result of fruitless and wasteful expenditure in the current or previous year as there was none reported.

Additional disclosure relating to material losses in terms of PFMA Section 55(2)(b)(i) &(iii))

a) Details of current material losses through criminal conduct

Material losses through criminal conduct	2023/24 R'000	2022/23 R'000
Theft	-	-
Other material losses	-	-
Less: Recoverable	-	-
Less: Not recoverable	-	-
Total	**-**	**-**

SANSA had no material losses through criminal conduct in the current or previous year.

b) Details of other material losses

Nature of other material losses	2023/24 R'000	2022/23 R'000
(Group major categories, but list material items)	-	-
Total	**-**	**-**

SANSA had no other material losses during the financial year.

c) Other material losses recovered

Nature of losses	2023/24 R'000	2022/23 R'000
(Group major categories, but list material items)	-	-
Total	**-**	**-**

There were no material losses recovered.

d) Other material losses not recoverable and written off

Nature of losses	2023/24 R'000	2022/23 R'000
(Group major categories, but list material items)	-	-
Total	**-**	**-**

There were no material losses written off.

37. **Information** on Late and/or Non-payment of Suppliers

Description	Number of Invoices	Consolidated Value
Valid invoices received	4 484	155 815
Invoices paid within 30 days or agreed period	3 565	127 609
Invoices paid after 30 days or agreed period	818	23 770
Invoices older than 30 days or agreed period (unpaid and without dispute)	-	-
Invoices older than within 30 days or agreed period (unpaid and in dispute)	19	581

Reasons for the late and or non-payment of invoices, including reasons that the invoices are in dispute, are reflected below.

- Invoices received late from suppliers
- Invoices received with errors
- Goods or services not received at the time of the receipt of the invoice
- Delays with internal approval processes
- Lack of capacity for finance processing due to hold on recruitment to fill vacancies.

38. Information on **Supply Chain Management**

Procurement by Other Means

Project Description	Name of Supplier	Type of Procurement by Other Means	Contract Number	Amount in Original Currency	Value of contract R'000
External Legal Representation	Mothle Jooma Sabdia Incorporated (MJS) Incorporated	Single Source	POR2310CO00341	R600 000.00	R600
Provision of an exhibition stand at the IAC 2023	Space Agency of the Republic of Azerbaijan (Azercosmos)	Sole Supplier	POR2303CO00254	EUR 98 530.00	R2 042
Provision of exhibition stand at the National Space Conference	Scan Display (Pty) Ltd	Sole Supplier	POR2308CO00266	R75 182.88	R75
SANSA Trademark Registration	Tshaya Mashabela Incorporated	Single Source	POR2208CO00204	R44 160.00	R44
Internet Connectivity and South African National Research Network (SANReN) Access Link	TENET	Single Source	POR2308CO00271	R4 500 000.00	R4 500
The workshop is a high-level gathering of industry leaders and other key stakeholders in the Agricultural Research industry	Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)	Sole Supplier	POR2305SE00013	USD 800.00	R15
MATLAB Product Software	Opti-Num Solutions (Pty) Ltd	Sole Supplier	POR2306EO00104	R20 069.20	R20
Custom clearance for CBERSB 4A processing system.	Chadex (Pty) Ltd	Single Source	POR2307EO00128	R500 000.00	R500
31st International Cartographic Conference (ICC2023)	Southern Cross Conferences (Pty) Ltd	Sole Supplier	POR2308CO00237	R37 500.00	R38
Procurement of ESRI enterprise and image server licenses	ESRI South fAfrica (Pty) Ltd	Sole Supplier	POR2403EO00039	R929 817.75	R930

Project Description	Name of Supplier	Type of Procurement by Other Means	Contract Number	Amount in Original Currency	Value of contract R'000
Multi-sensor satellite imagery	Maxar	Sole Supplier	POR2403EO00038	R4 900 000.00	R4 900
Procurement of access to daily images over the globe	Swift Geospatial	Sole Supplier	POR2403EO00043	R1 902 675.00	R1 903
NewSpace Africa Conference	NewSpace Africa Conference	Single Source	POR2403EO00030	R60 907.57	R61
IEOS Management services	CSIR (NEOSS)	Sole Supplier	POR2403EO00042	R2 300 000.00	R2 300
EO-Sat1 development	Denel SOC LTD	Single source	POR2403SE00002	R200 000 000.00	R200 000
Fault find and repair euro diesel generator system	Diesel Electric Services (Pty) Ltd	Emergency	POR2304SO00072	R200 000.00	R200
Supply and install UPS batteries at HBX and main	Standby Systems SA (Pty) Ltd	Sole Supplier	POR2305SO00096	R552 600.00	R553
Replace and test fault cards in bhbx 80KVA ups	Standby Systems SA (Pty) Ltd	Sole Supplier	POR2305SO00115	R26 404.69	R26
Supply and install ups batteries at Orbcom, Ksat and Egnos	Standby Systems SA (Pty) Ltd	Sole Supplier	POR2306SO00130	R339 459.07	R339
Supply and installation of CLA software	The NTH Dimension (Pty) Ltd	Sole Supplier	POR2307CO00229	R112 341.20	R112
Matjiesfontein lease agreement	Matjiesfontein Village (Pty) Ltd	Single Source	POR2308SO00189	R3 000 000.00	R3 000
UPS batteries and cards	Standby Systems SA (Pty) Ltd	Sole Supplier	POR2308SO00189	R1 400 000.00	R1 400
SANSA SAC.co.za Doman name	Dimension Data/Internet Solutions (Pty) Ltd	Single Source	POR2309CO00290	R1 000.00	R1
UPS Maintenance and minor repairs	Standby Systems SA (Pty) Ltd	Sole Supplier	POR2310SO00242	R490 000.00	R490
Spectrum analyser repairs	Concillium Technologies (Pty) Ltd	Sole Supplier	POR2311SO00254	R188 628.75	R189

Project Description	Name of Supplier	Type of Procurement by Other Means	Contract Number	Amount in Original Currency	Value of contract R'000
R&S 40GHz signal gen test port adaptors	Protea Electronics (Pty) Ltd	Sole Supplier	POR2311SO00260	R12 559.04	R13
Antenna control board repair	CPI (Communications and Power Industries)	Sole Supplier	POR2401SO00004	USD1 500.00	R28
Antenna maintenance corrective	Customized Motion Controls (Pty) Ltd	Sole Supplier	POR2401SO00008	R61 385.00	R61
House rental Matjiesfontein	Matjiesfontein Village (Pty) Ltd	Single Source	POR2403SO00039	R289 800.00	R290
Mathematica License	Blue stallion (Pty) Ltd	Sole Supplier	POR2305SS00195	R13 817.25	R14
SANSA established an optical space research (OSR) laboratory for measuring space environment from the ground using passive optical methods at the SAAO site in Sutherland since 2015. Single source deviation for Hosting of Optical Space Research Lab.	South African Astronomical Observatory (SAAO)	Single Source	POR2306SO00145	R950 000.00	R950
SANSA received a signed work authorization from Armscor and the SAAF to acquire SC21/MK3 Datum Compass under the Armscor contract. This Datum compass is acquired from a Sole Supplier. (Foreign supplier)	Hall & Watts Defense Optics	Sole Supplier	POR2306SO00146	GBP 43 652.95	R1 040
SANSA use SNIP NTRIP Caster software for collecting and disseminating RCTM message data streams from enabled GNSS in SA, Africa and Antarctica. Subcarrier system	Subcarrier Systems	Sole Supplier	POR2401SS00005	USD 5 975.00	R6

Project Description	Name of Supplier	Type of Procurement by Other Means	Contract Number	Amount in Original Currency	Value of contract R'000
Emergency roof repairs	Tess Engineering	Emergency	POR2312SS00383	NAD 13 706.00	R14
Matlab license	Opti-Num Solutions (Pty) Ltd	Sole Supplier	POR2311SS00371	R37 450.90	R37
Altium designer license	Altium Europe GmbH	Sole Supplier	POR2311CO00361	USD 4 235.00	R78
Spike Prime education material	Hands on Technology CC	Sole Supplier	POR2402SS00046	R300 000.00	R300
Exhibition space	Hyprop Investments Ltd	Single Source	POR2402SS00035	R11 000.00	R11
Calibration of equipment	Concilium Technologies (Pty) Ltd	Sole Supplier	POR2402SS00026	R30 291.00	R30
Zoom license renewal	TENET	Single Source	POR2403CO00122	R37 632.60	R38
Preferred supplier for Soldering Kits	Test and Rework Solutions (Pty) Ltd	Single Source	POR2403SS00105	R50 000.00	R50
LEMI Magnetometer repairs	Lviv Centre of Institute for Space Research, National Academy of Sciences of Ukraine and State Space Agency of Ukraine	Sole Supplier	POR2403SS00104	R450 000.00	R450
Total					**R227 647**

Contract Variations and Expansions

Project Description	Name of supplier	Contract modification type (Expansion or Variation)	Contract Number	Original Contract Value R'000	Value of Previous Contract Expansion/s or Variation/s (if Applicable) R'000	Value of Current Contract Expansion or Variations R'000
Jera to provide SAGE support.	Jera Consulting (Pty) Ltd	Expansion	POR2304CO00098	R5 338	R415	R331
The originally estimated amount for travel and events costs were not sufficient. The contract is being extended to increase the budget amount for travel expenditure and to extend the period to allow for sufficient time to conclude the current procurement process and award the new contract.	Travel with Flair	Expansion	SS/018/01/2020	R25 000	-	R4 900
An extra session was required, as the Occupational Health doctor has referred the employee to further be assessed by their Clinical Psychologist and Occupational Therapy to get an objective second opinion on the continued long sick leave	Life Health Solution (Pty) Ltd	Expansion	POR2311CO00392	R1 029	-	R21
The additional work/service require SANSA to extend the contract by 3 more months to enable the completion of the project.	Emergence Human Capital (Pty) Ltd	Extension	POR2202CO00017	R270	-	-

Project Description	Name of supplier	Contract modification type (Expansion or Variation)	Contract Number	Original Contract Value R'000	Value of Previous Contract Expansion/s or Variation/s (if Applicable) R'000	Value of Current Contract Expansion or Variations R'000
The original Contract required the service provider to supply mouse pads. However, SANSA has recently issued employees with mouse pads containing the SANSA values. In order to avoid duplication and fruitless expenditure, ERM requested the service provider to supply alternative items that can still fulfil the intention, i.e., to promote the Fraud and Ethics Hotline. Thus, ERM would like to replace the mouse pads with keyholders.	Vuvuzela Fraud and Ethics Hotline (Pty) Ltd	Extension	POR2308CO00245	R144	-	-
Earth Observation Software Development Resource	Kartoza (PtY) Ltd	Extension	POR2403EO00034	R2 534	-	-
Zutari is the Project Management Consulting service provider for the Building Management solution project. There were some delays in the project, and we need to do a no cost extension for the project management services.	Zutari (Pty) Ltd	Extension	SS/281/10/2021	Not Fixed	-	-
M-Files license extension – No Cost	VM Consulting (Pty) Ltd	Extension	SS/019/08/2020	R10 338	-	-
Total				**R43 624**	**-**	**R5 252**

PART

FINANCIAL INFORMATION

39. Report of the External Auditor

Independent Auditor's Report to Parliament on South African National Space Agency

Report on the Audit of the Financial Statements

Opinion

1. We have audited the financial statements of the South African National Space Agency set out on pages 121 to 182, which comprise the statement of financial position as at 31 March 2024, statement of financial performance, statement of changes in net assets, cash flow statement and title of statement of comparison of budget financial statements, including a summary of significant accounting policies.
2. In our opinion, the financial statements present fairly, in all material respects, the financial position of the South African National Space Agency as at 31 March 2024 and its financial performance and cash flows for the year then ended in accordance with the South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) and the requirements of the Public Finance Management Act of South Africa, 1999 (Act No.1 of 1999) (PFMA).

Basis for opinion

3. We conducted our audit in accordance with the International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the responsibilities of the auditor-general for the audit of the financial statements section of my report.
4. We are independent of the public entity in accordance with the International Ethics Standards Board for Accountants' *International code of ethics for professional accountants (including International Independence Standards)* (IESBA code) as well as other ethical requirements that are relevant to our audit in South Africa. We have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA code.
5. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter

6. We draw attention to the matters below. Our opinion is not modified in respect of the matter.

Allowance for impairment – receivables from exchange transactions

7. As disclosed in note 5 to the financial statements, the public entity accumulated to date, material impairment of R8 236 505 (2023: R8 441 867) as a result of the impairment of trade receivables.

Responsibilities of the accounting authority for the financial statement

8. The accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with the applicable financial reporting framework and the requirements of the SA Standards of GRAP and the requirements of the PFMA; and for such internal control as the accounting authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.
9. In preparing the financial statements, the accounting authority is responsible for assessing the public entity's ability to continue as a going concern; disclosing, as applicable, matters relating to going concern; and using the going concern basis of accounting unless the appropriate governance structure either intends to liquidate the public entity or to cease operations, or has no realistic alternative but to do so.

Responsibilities of the auditor for the audit of the financial statements

10. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.
11. A further description of our responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

Report on the annual performance report

12. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, we must audit and report on the usefulness and reliability of the reported performance information against predetermined objectives for the selected material performance indicators presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.
13. We selected the following material performance indicators related to the following programmes Earth Observation (Programme 2), Space Science (Programme 3), Space Operations (Programme 4) and Space Engineering (Programme 5) presented in the annual performance report for the year ended 31 March 2024. We selected those indicators that measure the public entity's performance on its primary mandated functions and that are of significant national, community or public interest.
    - 1.1.1. National research productivity score for supported R & D
    - 3.1.1. Number of youths directly engaged on space-related sciences
    - 3.2.1. Number of students and interns supported for formalised training
    - 4.4.1. Number of awareness and training interventions to key users of space-related products and services
    - 4.5.1. Number of additional government departments and public entities that are using space products and services
    - 6.1.1. Number of products and services
    - 2.2.1. The total contract expenditure to the broad space-related industry for core space projects
    - 5.1.1. Percentage progress towards a developed Matjiesfontein deep space facility
    - 5.1.2. Percentage progress towards a developed Space Infrastructure Hub (SIH)
    - 5.1.3. Percentage progress towards an upgraded AIT facility
14. We evaluated the reported performance information for the selected material performance indicators against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an annual performance report is prepared using these criteria, it provides useful and reliable information and insights to users on the public entity's planning and delivery on its mandate and objectives.
15. We performed procedures to test whether:
    - the indicators used for planning and reporting on performance can be linked directly to the public entity's mandate and the achievement of its planned objectives
    - all the indicators relevant for measuring the public entity's performance against its primary mandated and prioritised functions and planned objectives are included
    - the indicators are well defined to ensure that they are easy to understand and can be applied consistently, as well as verifiable so that we can confirm the methods and processes to be used for measuring achievements
    - the targets can be linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated
    - the indicators and targets reported on in the annual performance report are the same as those committed to in the approved initial or revised planning documents

- the reported performance information presented in the annual performance report in the prescribed manner and is comparable and understandable
- there is adequate supporting evidence for the achievements reported and for the reasons provided for any over- or underachievement of targets.

16. We performed the procedures to report material findings only; and not to express an assurance opinion or conclusion.
17. We did not identify any material findings on the reported performance information for the selected indicators.

Other Matter

18. We draw attention to the matter below.

Achievement of planned targets

19. The annual performance report includes information on reported achievements against planned targets and provides explanations for over- or underachievements. This information should be considered in the context of the material findings on the reported performance information.
20. The table that follows provides information on the achievement of planned targets and list the key indicators that were not achieved as reported in the annual performance report. The reasons for any underachievement of targets are included in the annual performance report on pages 25 to 27.

Space Engineering Programme

Targets achieved: 50%		
KEY [SERVICE DELIVERY] INDICATOR NOT ACHIEVED	**PLANNED TARGET**	**REPORTED ACHIEVEMENT**
Percentage progress towards a developed Matjiesfontein deep space facility	35%	25%
Percentage progress towards an upgraded AIT facility	8%	0%

Report on compliance with legislation

21. In accordance with the PAA and the general notice issued in terms thereof, we must audit and report on compliance with applicable legislation relating to financial matters, financial management and other related matters. The accounting authority is responsible for the public entity's compliance with legislation.
22. We performed procedures to test compliance with selected requirements in key legislation in accordance with the findings engagement methodology of the Auditor-General of South Africa (AGSA). This engagement is not an assurance engagement. Accordingly, we do not express an assurance opinion or conclusion.
23. Through an established AGSA process, we selected requirements in key legislation for compliance testing that are relevant to the financial and performance management of the public entity, clear to allow consistent measurement and evaluation, while also sufficiently detailed and readily available to report in an understandable manner. The selected legislative requirements are included in the annexure to this auditor's report.
24. We did not identify any material non-compliance with the selected legislative requirements.

Other information in the annual report

25. The accounting authority is responsible for the other information included in the annual report. The other information referred to does not include the financial statements, the auditor's report and those selected programmes presented in the annual performance report that have been specifically reported on in this auditor's report.
26. Our opinion on the financial statements, the report on the audit of the annual performance report and the report on compliance with legislation do not cover the other information included in the annual report and we do not express an audit opinion or any form of assurance conclusion on it.
27. Our responsibility is to read this other information and, in doing so, consider whether it is materially inconsistent with the financial statements and the selected programmes presented in the annual performance report or our knowledge obtained in the audit, or otherwise appears to be materially misstated.
28. If based on the work we have performed, we conclude that there is a material misstatement in this other information, we are required to report that fact.
29. We have nothing to report in this regard.

Internal control deficiencies

30. We considered internal control relevant to our audit of the financial statements, annual performance report and compliance with applicable legislation; however, our objective was not to express any form of assurance on it.
31. We did not identify any significant deficiencies in internal control.

Audit related services

32. An agreed-upon procedures engagement was performed on grants received from the National Research Foundation (NRF), to confirm compliance with the grant conditions. The report covered the period 1 January 2023 to 31 December 2023 and the report was issued to the South African National Space Agency on 31 July 2024.

A2A Kopano Inc.

A2A Kopano Incorporated
TA Maenzanise
Director
Registered Auditor

30 July 2024

147 Marais Street
Brooklyn Pretoria
0181
IRBA. NO. 901944-0007

Annexure to the Auditor's Report

The annexure includes the following:

- The auditor-general's responsibility for the audit
- The selected legislative requirements for compliance testing

Auditor-General's Responsibility for the Audit

Professional judgement and professional scepticism

As part of an audit in accordance with the ISAs, we exercise professional judgement and maintain professional scepticism throughout my audit of the [consolidated and separate] financial statements and the procedures performed on reported performance information for selected material performance indicators and on the public entity's compliance with selected requirements in key legislation.

Financial statements

In addition to my responsibility for the audit of the financial statements as described in this auditor's report, we also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made
- conclude on the appropriateness of the use of the going concern basis of accounting in the preparation of the financial statements. we also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the public entity to continue as a going concern. If we conclude that a material uncertainty exists, we required to draw attention in our auditor's report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify our opinion on the financial statements. Our conclusions are based on the information available to us at the date of this auditor's report. However, future events or conditions may cause a public entity to cease operating as a going concern
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Communication with those charged with governance

We communicate with the accounting authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during my audit.

We also provide the accounting authority with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and, where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated to those charged with governance, we determine those matters that were of most significance in the audit of the financial statements for the current period and are therefore key audit matters. We describe these matters in this auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in this auditor's report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest of such communication.

Compliance with legislation – selected legislative requirements

The selected legislative requirements are as follows:

LEGISLATION	SECTIONS OR REGULATIONS
Public Finance Management Act 1 of 1999 (PFMA)	Sections - 51(1)(b)(i), 51(1)(b)(ii), 51(1)(e)(iii), 53(4), 54(2)(c) Sections - 54(2)(d), 55(1)(a), 55(1)(b), 55(1)(c)(i); 57(b)
National Treasury Regulations issued in terms of the PFMA	Regulations - 16A3.2, 16A6.1, 16A6.2(a) & (b) Regulations - 16A6.3 (a) &(b), 16A6.3(c), 16A6.6,16A.7.1 Regulations - 16A.7.3, 16A.7.6, 16A.7.7, 16A8.3; 16A8.4, Regulations - 16A9.1(b)(ii), 16A9.1(d), 16A9.1(e); 16A9.1(f), Regulations - 16A9.2(a)(ii), 8.2.1 and 8.2.2, 30.1.1, 30.1.3(a) Regulations - 30.1.3(b) , 30.1.3(d), 30.2.1, 31.1.2(c) Regulations - 31.2.1; 31.3.3; 33.1.1, 33.1.
Preferential Procurement Policy Framework Act 5 of 2000 (PPPFA)	Section - 2(1)(a) and (b); 2(1)(f)
Preferential Procurement Regulations of 2017 (PPR)	Regulations - 4(1) & 4(2); 5(1) & 5(3); 5(6); 5(7) ; 6(8), 7(8), Regulations - 8(2); 8(5); 9(1); 10(1)&(2) & 11(1)
Preferential Procurement Regulations of 2022 (PPR)	Regulation 4(4)
Construction Industry Development Board Act 38 of 2000	Section - 18(1)
Construction Industry Development Board Regulations	Regulations – 17, 25(7A)
Prevention and Combatting of Corrupt Activities Act 12 of 2004	PRECCA 34(1)
National Treasury Instruction note 4 of 2015/16	Paragraphs – 3.4
National Treasury Instruction 4A of 2016/17	Paragraphs – 6
National Treasury Instruction 07 of 2017/18	Paragraphs – 4.3
National Treasury Instruction 01 of 2021-22	Paragraphs – 4.1
SCM Instruction Note 02 of 2021-22	Paragraphs – 3.2.1, 3.2.4, 3.3.1,
PFMA SCM instruction note 03 of 2021/22	Paragraphs – 4.1, 4.2 (b), 4.3, 4.4, 7.2, 3.2.4 (b)

41. Annual Financial Statements

Statement of Financial Position

as at 31 March 2024

	Notes	2024 R	2023 R
Assets			
Current Assets		**864 406 044**	**390 887 085**
Cash and Cash Equivalents	4	816 696 421	359 329 003
Receivables from Exchange Transactions	5	45 094 834	31 059 022
Inventory	6	2 614 789	499 060
Non-Current Assets		**519 490 864**	**532 222 862**
Property, Plant and Equipment	7	506 662 671	516 534 837
Intangible Assets	8	12 828 193	15 688 025
Total Assets		**1 383 896 908**	**923 109 947**
Liabilities			
Current Liabilities		**727 820 428**	**249 421 186**
Trade and Other Payables	9	30 035 557	42 363 522
Provisions	10	12 067 779	11 886 425
Conditional Grants	11	685 612 179	195 066 326
Operating Lease Liability	13	104 913	104 913
Total Liabilities		**727 820 428**	**249 421 186**
Net Assets		656 076 480	673 688 761
Accumulated Surplus		656 076 480	673 688 761
Total Net Assets		656 076 480	673 688 761

Statement of Financial Performance

for the year ended 31 March 2024

	Notes	2024 R	2023 R
Revenue			
Revenue from Non-exchange Transactions			
Transfers and Grants	12	171 831 275	208 795 080
Revenue from Exchange Transactions			
Interest	14	13 437 316	9 853 845
Rendering of Services	15	160 938 146	131 628 347
Other Income	16	1 487 101	1 565 256
Total Revenue		**347 693 838**	**351 842 528**
Expenditure			
Employee Related Costs	17	187 771 859	158 742 673
Board Member Remuneration	18	1 317 073	2 180 607
Depreciation and Amortisation	19	34 970 506	26 749 371
Repairs and Maintenance	7.1	18 213 369	14 013 905
Data Licence Fees	20	2 233 169	2 732 142
Student Bursaries and Research Grants	21	10 106 409	21 183 136
Antenna Infrastructure Services	22	4 805 891	10 612 159
Training Expenses	23	2 724 994	3 610 698
General Expenses	24	101 373 135	101 286 109
Net Losses on Foreign Exchange Transactions	25	1 026 405	76 734
Net Losses on Disposal of Property, Plant and Equipment	26	684 138	362 805
Impairment of Accounts Receivable	28	79 173	13 800
Total Expenditure		**365 306 122**	**341 564 139**
Deficit for the Year		**(17 612 283)**	**10 278 389**

Statement of Changes in Net Assets

for the year ended 31 March 2024

	Accumulated Surplus R
2023	
Balance at 01 April 2022	663 410 372
Surplus for the Year	10 278 389
Balance as at 31 March 2023	**673 688 761**
2024	
Balance at 01 April 2023	673 688 761
Deficit for the Year	(17 612 283)
Balance at 31 March 2024	**656 076 480**

Cashflow Statement

for the year ended 31 March 2024

	Notes	2024 R	2023 R
Cashflows from Operating Activities			
Receipts			
Transfers and Grants		662 377 127	289 714 229
Rendering of Services		146 902 334	120 697 228
Interest	14	13 437 316	9 853 845
Other Receipts	16	1 487 101	1 565 254
Payments			
Employee Related Costs		(189 027 459)	(171 636 546)
Suppliers		(154 886 390)	(148 124 861)
Net Cashflows from Operating Activities	27	**480 290 029**	**102 069 149**
Cashflows from Investing Activities			
Acquisition of Property, Plant and Equipment	7	(22 790 292)	(51 299 243)
Proceeds on Sale of Property, Plant and Equipment		21 781	27 743
Acquisition of Intangible Assets	8	(154 100)	(2 060 295)
Net Cashflows from Investing Activities		**(22 922 611)**	**(53 331 796)**
Net Increase in Cash and Cash Equivalents		457 367 418	48 737 353
Cash and Cash Equivalents at the Beginning of the Year		359 329 003	310 591 650
Cash and Cash Equivalents at the End of the Year	4	**816 696 421**	**359 329 003**

Statement of Comparison of Budget and Actual Amounts

for the year ended 31 March 2024

	Note	Approved Budget 2023/24 R	Final Budget 2023/24 R	Actual Amounts on a Comparable Basis 2023/24 R	Difference 2023/24 R
Receipts					
Revenue from Non-exchange Transactions		**1 014 741 502**	**311 093 858**	**171 831 275**	**(139 262 583)**
Operational Transfers		916 297 000	141 087 000	141 087 000	-
Conditional Transfers	3.3.1	88 455 889	152 288 619	15 195 004	(137 093 615)
Research Grants	3.3.2	4 808 613	11 218 239	8 455 896	(2 762 343)
Postgraduate Student Bursary Support		5 180 000	6 500 000	7 093 375	593 375
Revenue from Exchange Transactions		**90 199 653**	**116 796 536**	**160 938 147**	**44 141 610**
Contract Income: Public	3.3.3	21 838 821	18 685 839	23 511 355	4 825 516
Contract Income: Private	3.3.4	6 564 061	5 285 000	6 500 512	1 215 512
Contract Income: Foreign	3.3.5	61 796 771	92 825 697	130 926 279	38 100 582
Other Income	3.3.6	9 374 889	11 224 584	14 924 417	3 699 833
Prior Year Surplus Brought Forward		-	140 966 836	78 453 114	(62 513 722)
Total Receipts		**1 114 316 044**	**580 081 814**	**426 146 953**	**(153 934 863)**
Expenditure					
Employee Related Costs	3.3.7	197 707 411	197 602 725	187 771 859	9 830 866
Board Member Remuneration		966 408	2 303 000	1 317 073	985 927
Repairs and Maintenance	3.3.8	12 881 374	27 334 481	18 213 369	9 121 112
Data Licence Fees	3.3.9	5 897 059	26 838 731	2 233 169	24 605 562
Student Bursaries and Research Grants Paid	3.3.10	47 536 612	54 094 093	10 106 409	43 987 684
Antenna Infrastructure Services	3.3.11	1 802 999	6 745 007	4 805 891	1 939 116
Training Expenses	3.3.12	3 283 903	9 591 466	2 724 994	6 866 472
General Expenses	3.3.13	86 173 570	132 408 318	101 373 135	31 035 183
Net Losses on Foreign Exchange Transactions		-	516 441	1 026 405	(509 964)
Net Losses on Disposal of Property, Plant and Equipment		-	44 969	684 138	(639 169)
		356 249 335	**457 479 231**	**330 256 443**	**127 222 788**

	Note	Approved Budget 2023/24 R	Final Budget 2023/24 R	Actual Amounts on a Comparable Basis 2023/24 R	Difference 2023/24 R
Payments for Capital Assets					
Plant and Machinery	3.3.14	79 557 243	59 499 014	6 582 454	52 916 560
Software and Intangible Assets	3.3.15	1 900 000	3 680 820	154 100	3 526 720
Vehicles	3.3.16	-	2 690 000	2 400 884	289 116
Buildings and Other Fixed Structures	3.3.17	117 875 000	36 954 949	2 381 209	34 573 740
Office Equipment	3.3.18	-	3 351 464	228 915	3 122 549
Office Furniture	3.3.19 3.3.20	-	1 766 629	670 502	1 096 127
Computer Equipment	3.3.20	71 234 466	13 479 722	10 165 177	3 314 545
Satellite Development	3.3.21	487 500 000	1 179 985	-	1 179 985
Infrastructure	3.3.22	-	-	361 152	(361 152)
		758 066 709	**122 602 583**	**22 944 392**	**99 658 191**
Total Expenditure		**1 114 316 044**	**580 081 814**	**353 200 835**	**226 880 979**
Cash Surplus	3.3.23	**-**	**-**	**72 946 118**	**72 946 117**

The budget is prepared on a cash basis and reconciliations to the Cashflow Statement and Statement of Financial Performance are disclosed in the table below and note 3.3.23 respectively.

Reconciliation between Statement of Comparison of Budget and Actual Amounts and Cashflow Statement

	Operating Activities R	Financing Activities R	Investing Activities R	Total R
Net Cash Flows from:				
Actual Amount on Comparable Basis as Presented in the Budget and Actual Comparative Statement	**95 890 510**	**-**	**(22 944 392)**	**72 946 120**
Basis Differences	384 399 519	-	21 781	383 592 991
Actual Amount in Cashflow Statement	**480 290 029**	**-**	**(22 922 611)**	**457 367 418**

42. Notes to the Financial Statements

1. Basis of Presentation

The Annual Financial Statements have been prepared on going concern basis in accordance with the Standards of Generally Recognised Accounting Practice (GRAP), including interpretations and directives issued by the Accounting Standards Board (ASB) and the Public Finance Management Act (PFMA).

The historic cost convention has been used, except where indicated otherwise.

The figures presented in the Annual Financial Statements have been rounded to the nearest Rand value.

These accounting policies are consistent with the previous period. Significant accounting policies, which have been consistently applied, are disclosed below. Details of any changes in accounting policies are explained in the relevant policy.

1.1 Significant Judgements and Sources of Estimation Uncertainty

In the application of the entity's accounting policies, which are described below, management is required to make judgements, estimates and assumptions about the amounts of assets, liabilities, revenue and expenses that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

These estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The following are the significant judgements that management has made in the process of applying the entity's accounting policies and have the most significant effect on the amounts recognised in the Annual Financial Statements:

1.1.1 Financial Assets and Liabilities

The classification of financial assets and liabilities into categories is based on the relevant GRAP standards and the terms of the instruments. Accounting policy 1.3.1 on Financial Assets - Classification and Accounting policy 1.3.2 on Financial Liabilities - Classification describe the factors and criteria considered by management of the entity in the classification of financial assets and liabilities.

In making the above-mentioned judgements, management considers the definition and recognition criteria for the classification of financial instruments as set out in GRAP.

1.1.2 Impairment of Financial Assets

The Impairment of Financial Assets describes the process followed to determine the value by which financial assets should be impaired. In making the estimation for impairment, management considers the criteria for impairment of financial assets and the judgement used is mainly based on market conditions existing at the end of the reporting period. The criteria for impairment is the credit risks associated to the principal amount of a contract or debt which could result in credit losses. Calculations in respect of impairment of debtors are based on an assessment of the extent to which debtors have defaulted on payments already due, and an assessment of their ability to make payments based on their creditworthiness.

Management is satisfied that the impairment of financial assets recorded during the year is appropriate.

1.1.3 Useful Lives of Property, Plant and Equipment and Intangible Assets

Property, plant and equipment and intangible assets are depreciated over their useful lives taking into account residual values, where appropriate. The useful lives and residual values are assessed annually and may vary depending on a number of factors. In re-assessing

useful lives, factors such as technological innovation and maintenance programmes are taken into account. Residual value assessments consider factors such as future market conditions, the remaining life of the asset and projected disposal values.

1.1.4 Impairment of Non-financial Assets

Impairment is applied when the carrying amount is higher than the recoverable service amount. The recoverable service amount is the greater of the fair value less the cost to sell and value in use. These calculations require the use of estimates and assumptions. It is reasonably possible that the assumptions used may change which could impact estimated amounts and could result in material adjustments to the carrying value of assets under these categories.

SANSA tests for impairment when events or changes in circumstances suggest that the carrying amount may not be recoverable. If there are indications that impairment may have occurred, estimates of expected future cash flows are prepared. Expected future cash flows, which are used to determine the value in use of assets are inherently uncertain and could change materially over time.

1.1.5 Provisions, Contingent Assets and Contingent Liabilities

Judgment is required in recognising and measuring provisions for contingent assets and contingent liabilities. The carrying amount of a provision is the best estimate of the amount required to settle a present obligation at the reporting date. SANSA recognises a provision for bonuses based on the expected performance bonuses to be paid out to employees. Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in Note 33.

1.1.6 Leave Pay Provision

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs. Employees can accrue up to a maximum of 25 annual leave days.

1.2 Financial Instruments

1.2.1 Financial Assets - Classification

The entity has the following types of financial assets as reflected on the face of the Statement of Financial Position and in the notes thereto:

TYPE OF FINANCIAL ASSET	CLASSIFICATION
Cash and Cash Equivalents	Financial Assets at Amortised Cost
Receivables from Exchange Transactions	Financial Assets at Amortised Cost

Cash includes cash on hand (including petty cash) and cash with banks, and other debtors.

1.2.2 Financial Liabilities - Classification

The entity has the following types of financial liabilities as reflected on the face of the Statement of Financial Position or in the notes thereto:

TYPE OF FINANCIAL LIABILITY	CLASSIFICATION
Trade and Other Payables	Financial Liabilities at Amortised Cost

1.2.3 Initial and Subsequent Measurement

All financial assets and liabilities are initially measured at fair value, including directly attributable transaction costs for instruments that are not subsequently measured at fair value.

The amount at which a financial asset or financial liability is measured at is the initial recognition amount minus principal repayments, plus or minus the cumulative amortisation using the effective interest method for any difference between that initial amount and the maturity amount, and minus any reduction (directly or through the use of an allowance account) for impairment or uncollectibility.

Financial Assets:

Subsequent to initial recognition, financial assets are measured at amortised cost.

Financial Liabilities:
Subsequent to initial recognition, financial liabilities are measured at amortised cost.

1.2.4 Impairment of Financial Assets

Financial assets are impaired when there is objective evidence of impairment of financial assets (such as the probability of insolvency or significant financial difficulties of the debtor). The impairment on financial assets is determined as the difference between the carrying amount and the present value of the estimated future cash flow.

Financial Assets Carried at Amortised Cost
Financial assets are carried at amortised cost encompass accounts receivables and cash and cash equivalents. An estimate is made for doubtful debts based on past default experience of all outstanding amounts at year-end. Bad debts are written off the in year in which they are identified as irrecoverable.

An allowance for impairment of accounts receivables is established when there is objective evidence that the entity will not be able to collect all amounts due according to the original terms of receivables. The allowance is made when the recoverability of accounts receivable is assessed individually and then collectively after grouping the assets into financial assets with similar credit risk characteristics. The amount of the allowance is the difference between the financial asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. Future cash flows in a group of financial assets that are collectively evaluated for impairment are estimated on the basis of historical loss experience for assets with credit risk characteristics similar to those in the group. The entity uses an allowance account to record impairment losses.

1.3 Inventory

Initial Measurement

Inventories are initially measured at cost except where inventories are acquired through a non-exchange transaction, then their costs are their fair value as at the date of acquisition.

The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

Subsequent Measurement

Subsequently, inventories are measured at the lower of cost and net realisable value.

Cost Formula

The cost of inventories is assigned using the weighted average formula. The same cost formula is used for all inventories having a similar nature and use to the entity.

When inventories are sold, the carrying amounts of those inventories are recognised as an expense in the period in which the related revenue is recognised.

1.4 Property, Plant, Equipment

Property, plant and equipment is measured at cost, net of accumulated depreciation and/or accumulated impairment losses.

Depreciation is recognised in surplus or deficit on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. SANSA's accounting policy is to depreciate assets as follows:

ASSET CLASS	YEARS
Freehold Land	
Land	Indefinite
Freehold Buildings	
Buildings	15–50
Alterations and Other Fixtures	14–15
Infrastructure	10–20
Leasehold Improvements	
Improvements	Shorter of the contract period or useful life
Other	
Computer Equipment	1–5

ASSET CLASS	YEARS
Exhibits	3–15
Motor Vehicles	3–7
Office Equipment	3–15
Office Furniture	3–15
Plant and Machinery	2–20
Research Equipment	2–15
Laboratory Equipment	2–15

1.4.1 Impairment of Non-financial Assets

Cash-generating units are determined as the smallest identified group of assets which can generate cash flows independently from other assets or groups of assets. Non-cash-generating assets are primarily held for internal service delivery purposes.

If there is any indication that an asset may be impaired, the recoverable service amount is estimated for the individual asset. For cash-generating assets, if it is not possible to estimate the recoverable amount of the individual asset, the recoverable amount of the cash-generating unit to which the asset belongs is determined. If the recoverable service amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable service amount. That reduction is an impairment loss, and recognised in Surplus or Deficit.

If there is any indication that an asset may no longer be impaired, the recoverable service amount is estimated for the individual asset. For cash-generating assets, if it is not possible to estimate the recoverable amount of the individual asset, the recoverable amount of the cash-generating unit to which the asset belongs is determined. If the recoverable service amount of an asset is more than its carrying amount, the carrying amount of the asset is increased but does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior periods.

A gain or loss, which is the difference between the proceeds on disposal and the carrying amount, arising from the derecognition of an item of Property, Plant and Equipment is included in surplus or deficit when the item is derecognised.

The criteria for determining which assets are cash-generating assets is based on the relevant GRAP standards. Cash-generating assets are those which are held with the objective of generating a commercial return and are essential for operations and income generation. Non-cash-generating assets are those which do not directly generate cash flows.

1.5 Intangible Assets

Intangible assets are stated at cost, being the initial cost less any accumulated amortisation and impairment losses. Amortisation is charged to surplus or deficit so as to write-off the cost of intangible assets over their estimated useful lives, using the straight-line method as follows:

ASSET CLASS	YEARS
Computer Software	2–5
Intellectual Property	1–40

The surplus or deficit arising from the derecognition of an item of intangible assets is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

1.6 Provisions

Provisions are recognised when the entity has a present legal or constructive obligation as a result of past events, and it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation and a reliable estimate can be made.

Provisions are reviewed at the reporting date and the amount of a provision is the present value of the expenditure expected to be required to settle the obligation. When the effect of discounting is material, provisions are determined by discounting the expected future cash flows that reflect current market assessments of the time value of money at a rate adjusted for the specific risks of a liability.

1.7 Leases

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership.

1.7.1 Operating Leases – Lessee

The entity recognises operating lease rentals as an expenditure in surplus or deficit on a straight-line basis over the term of the relevant lease. The difference between the amounts recognised as an expenditure and the contractual payments are recognised as an operating lease asset or liability.

1.7.2 Operating Leases – Lessor

Operating lease revenue is recognised as revenue on a straight-line basis over the lease term. Initial direct costs incurred in negotiating and arranging operating leases are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease revenue.

Income for leases is disclosed under revenue in the Statement of Financial Performance.

1.8 Revenue Recognition

1.8.1 Revenue from Exchange Transactions

1.8.1.1 Interest Income

Interest earned on investments is recognised in surplus or deficit on a time proportionate basis that takes into account the effective yield on the investment.

1.8.1.2 Rendering of Services

Rendering of Services constitutes revenue which arises from service delivery to customers measured at using the stage of completion method.

The stage of completion is assessed with reference to work performed as at the reporting date. Contract revenue includes the initial amount agreed in the contract plus any variations in contract work, claims and incentive payments to the extent that it is probable that these will result in revenue and can be measured reliably. As soon as the outcome of a contract can be estimated reliably, contract revenue and expenses are recognised in surplus or deficit in proportion to the stage of completion of the contract.

When the outcome of a contract cannot be estimated reliably, contract revenue is recognised only to the extent of contract costs incurred that are likely to be recoverable. An expected loss on a contract is recognised immediately in surplus or deficit.

1.8.2 Revenue from Non-exchange Transactions

1.8.2.1 Government Grants/Subsidies

Conditional Grants and Receipts

Income received from conditional grants, donations and funding is recognised as revenue to the extent that the entity has complied with all of the criteria, conditions or obligations embodied in the agreement. To the extent that the criteria, conditions or obligations have not been met a liability is recognised.

Unconditional Grants and Receipts

Government grants that are receivable as compensation for expenditure or losses already incurred or for the purpose of giving immediate financial support to the entity with no future related costs are recognised in surplus or deficit in the period in which they become receivable.

1.9 Foreign Currencies

Transactions in foreign currencies are initially recorded at the prevailing exchange rate on the dates of the transactions.

Monetary assets and liabilities denominated in such foreign currencies are translated to the functional currencies at the rates prevailing at the reporting date. Exchange differences are included in surplus or deficit.

1.10 Employee Benefits

1.10.1 Short-term Employee Benefits

The costs of all short-term employee benefits such as leave pay and bonuses are recognised during the period in which the employee renders the related service. The liability for leave pay is based on the total accrued leave days at year-end and is included under trade and other

payables in the Statement of Financial Position. The entity recognises the expected cost of performance bonuses only when the entity has a present legal or constructive obligation to make such payment and a reliable estimate can be made.

Short-term employee benefits are employee benefits (other than termination benefits) that are due to be settled in wholly before 12 months after the end of the reporting period in which the employees render the related service.

Short-term employee benefits include items such as the following, if they are expected to be settled in wholly before 12 months after the end of the reporting period in which the employees render the related services:

(a) wages, salaries and social security contributions;
(b) paid annual leave and paid sick leave;
(c) bonus, incentive and performance related payments; and
(d) non-monetary benefits such as medical care, housing, cars and free or subsidised goods or services for current employees.

When an employee has rendered service during a reporting period, the undiscounted amount of short-term employee benefits expected to be paid in exchange for services is recognised:

(a) As a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, an entity recognises that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund.
(b) As an expense, unless another Standard of GRAP requires or permits the inclusion of the benefits in the cost of an asset.

1.10.2 Provision for Staff Leave

Liabilities for annual leave are recognised as they accrue to employees. The liability is based on the total amount of leave days due to employees at year-end and also on the total remuneration package of the employee. The provision is limited to a maximum of 25 days per employee.

Accumulating leave is carried forward and can be used in future periods if the current period's entitlement is not used in full. All unused leave will be paid out to the specific employee at the end of that employee's employment term.

1.10.3 Bonus, Incentive and Performance Related Payments

1.10.3.1 Staff Bonuses Accrued

Liabilities for staff bonuses are recognised by accruing bonuses for each employee at financial year end while taking the employee's eligibility for bonus into account.

1.10.3.2 Provision for Performance Bonuses

A provision, in respect of the liability relating to the anticipated costs of performance bonuses payable to employees, is recognised as it accrues. The entity's performance bonus provisions are based on the employment contract stipulations as well as previous performance bonus payment trends.

1.10.4 Defined Contribution Plans

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Recognition and Measurement

When an employee has rendered services during a reporting period, the contribution payable to a defined contribution plan in exchange for that service is recognised:

(a) as a liability (accrued expense), after deducting any contributions already paid. If the contributions already paid exceeds the contribution due for service before the end of the reporting period, an entity shall recognise that excess as an asset (prepaid expense) to the extent that the prepayment will lead to, for example, a reduction in future payments or a cash refund; and
(b) as an expense, unless another Standard requires or permits the inclusion of the contribution in the cost of an asset.

When contributions to a defined contribution plan are not expected to be settled in full within 12 months after the end of the reporting period in which the employees render the related service, they are discounted using the discount rate specified in paragraph .89 of GRAP 25.

1.11 Irregular Expenditure

Irregular expenditure is expenditure that is contrary to the Public Finance Management Act (Act No. 56 of 2003) and is in contravention of any legislation. Irregular expenditure excludes unauthorised expenditure. All expenditure relating to irregular expenditure is recognised as an expense in the Statement of Financial Performance in the year that expenditure was incurred. Expenditure is classified in accordance with the nature of the expense, and where recovered, it is subsequently accounted for as revenue in the Statement of Financial Performance.

1.12 Fruitless and Wasteful Expenditure

Fruitless and wasteful expenditure is expenditure that was made in vain and would have been avoided had reasonable care been exercised. All expenditure relating to fruitless and wasteful expenditure is recognised as an expense in the Statement of Financial Performance in the year that the expenditure was incurred. The expenditure is classified in accordance with the nature of the expense, and where recovered, it is subsequently accounted for as revenue in the Statement of Financial Performance.

1.13 Materiality

Omissions or misstatements of items are material if they could, individually or collectively, influence the decisions or assessments of users made on the basis of the financial statements. Materiality depends on the nature or size of the omission or misstatement judged in the surrounding circumstances. The nature or size of the information item, or a combination of both, could be the determining factor. Assessing whether an omission or misstatement could influence decisions of users, and so be material, requires consideration of the characteristics of those users. The Framework for the Preparation and Presentation of Financial Statements states that users are assumed to have a reasonable knowledge of government, its activities, accounting and a willingness to study the information with reasonable diligence. Therefore, the assessment takes into account how users with such attributes could reasonably be expected to be influenced in making and evaluating decisions.

1.14 Segment Information

A segment is an activity of an entity:

- that generates economic benefits or service potential (including economic benefits or service potential relating to transactions between activities of the same entity).
- whose results are regularly reviewed by management to make decisions about resources to be allocated to that activity and in assessing its performance; and
- for which separate financial information is available.
- whose results are regularly reviewed by management to make decisions about resources to be allocated to that activity and in assessing its performance; and
- for which separate financial information is available.
- for which separate financial information is available.

Reportable segments are the actual segments which are reported on in the segment report. They are the segments identified above or alternatively an aggregation of two or more of those segments where the aggregation criteria are met.

Measurement

The amount of each segment item reported is the measure reported to management for the purposes of making decisions about allocating resources to the segment and assessing its performance. Adjustments and eliminations made in preparing the entity's financial statements and allocations of revenues and expenses are included in determining reported segment surplus or deficit only if they are included in the measure of the segment's surplus or deficit that is used by management. Similarly, only those assets and liabilities that are included in the measures of the segment's assets and segment liabilities that are used by management are reported for that segment. If amounts are allocated to reported segment surplus or deficit, assets or liabilities, those amounts are allocated on a reasonable basis.

1.15 Budget Information

The financial statements are prepared on an accrual basis whilst the budget is prepared on a cash basis of accounting. The approved budget covers the fiscal period from 01/04/2023 to 31/03/2024. A reconciliation

between the surplus/(deficit) for the period as per the Statement of Financial Performance and budgeted surplus/(deficit) is included in the Statement of Comparison of Budget and Actual Amounts. At the end of September each year the budget may be revised if necessary due to changes in the operations of the entity which require a reallocation of resources. All budget changes are approved by the Board of Directors prior to the implementation of the revised budget.

1.16 Standards and Interpretations Issued, but not yet Effective

STANDARD NUMBER	STANDARD NAME	EFFECTIVE DATE (IF APPLICABLE)	EXPECTED IMPACT
GRAP 1 (amended)	Presentation on Financial Statements	No effective date	Impact currently being assessed
GRAP 103 (amended)	Heritage Assets	No effective date	Impact currently being assessed
GRAP 104 (amended)	Financial instruments	01 April 2025	Impact currently being assessed
GRAP 105 (amended)	Transfers of Functions Between Entities Under Common Control	No effective date	Impact currently being assessed
GRAP 106 (amended)	Transfers of Functions Between Entities Not Under Common Control	No effective date	Possible impact if SANSA acquires Houwteq facility
GRAP 107 (amended)	Mergers	No effective date	Not applicable to SANSA

1.17 Going Concern Assumption

The Annual Financial Statements have been prepared on a going concern basis. This basis presumes that funds will be available for at least the next 12 months to finance future operations and that the realisation of assets and settlement of liabilities, contingent liabilities and commitments will occur in the ordinary course of business.

1.18 Events After the Reporting Date

Events after the reporting date that are classified as adjusting events have been accounted for in the Annual Financial Statements, please refer to Note 36. The events after the reporting date that are classified as non-adjusting events after the reporting date have been disclosed in the notes to the Annual Financial Statements.

1.19 Related Parties

A related party is a person or an entity with the ability to control or jointly control the other party, or exercise significant influence over the other party, or vice versa, or an entity that is subject to common control, or joint control. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

A related party transaction is a transfer of resources, services or obligations between the reporting entity and a related party, regardless of whether a price is charged. Significant influence is the power to participate in the financial and operating policy decisions of an entity, but is not control over those policies.

Individuals as well as their close family members, and/or entities are related parties if one party has the ability, directly or indirectly, to control or jointly control the other party or exercise significant influence over the other party

in making financial and/or operating decisions. SANSA is a related entity to all other entities (and their controlled/jointly controlled entities) for which the Minister Higher Education, Science and Innovation is the Executive Authority and more broadly, to all entities controlled by the national executive.

1.20 Accumulated Surplus

The accumulated surplus represents the net difference between the total assets and the total liabilities. Any surplus realised during a specific financial year is credited against the accumulated surplus.

Prior year adjustments relating to income and expenditure are credited/debited against accumulated surplus/(deficit) when retrospective adjustments are made.

2. Segment Information

General Information About Segments

The entity is organised and reports on a basis comprised of five functional areas: the Administration Programme, the Earth Observation Programme, the Space Science Programme, the Space Operations Programme and the Space Engineering Programme. The programmes were organised around the type of services provided and the related space science fields. Management used the same segments for determining and delivering on its strategic objectives.

The Administration Programme provides management, administrative and technical support across all operating units. This facilitates operational efficiency and cost-effective management, aligned with sound governance principles and the seamless integration and collaboration between SANSA programmes.

SANSA's Space Engineering Programme leads systems engineering and project management expertise and drives a small satellite build programme in South Africa in partnership with primary contractors, R&D institutions and private sector partners. The programme conducts satellite and sub-systems analysis, leads the technical side of space programme project management, provides human capital development in space engineering and facilitates private space industry partnerships.

The Earth Observation Programme is responsible for the collection, processing, archiving and distribution of Earth Observation data and data products for societal benefit. SANSA maintains an Earth Observation portfolio of sensors, provides an R&D platform in Earth Observation technologies, conducts satellite image processing and correction, and provides human capital development in Earth Observation and science advancement.

The Space Science Programme leads multidisciplinary space science. Key functions include fundamental and applied science research, the support of space facilitated science through science data acquisition, the coordination and administration of scientific data ground segments, provision of space weather and other geospace products and services on a commercial and private basis. The programme also provides leadership in postgraduate science student training as well as science engagement support.

The Space Operations Programme is responsible for the acquisition of satellite data for the Earth Observation Programme and the provision of ground segment support. Through this programme, SANSA conducts various space operations, including launch and early-orbit support, in-orbit testing, satellite life-cycle support and satellite mission control for national and international space industry clients and governments. The programme also supplies hosting capabilities.

Inter-segment items are eliminated on consolidation and reflected in the 'eliminations' column.

2024	Administration R	Earth Observation R	Space Operations R	Space Science R	Space Engineering R	Eliminations R	Total R
Revenue							
Revenue from Non-exchange Transactions							
Transfers and Subsidies Received	53 981 786	26 762 978	30 331 380	52 764 755	7 990 375	-	**171 831 274**
Revenue from Exchange Transactions							
Interest Income	5 149 971	1 741 418	4 213 890	2 332 037	-	-	**13 437 316**
Other Income	48 062 281	19 893	846 504	454 127	5 948 733	(53 844 437)	**1 487 101**
Rendering of Services	10 937 909	23 714 242	117 764 691	8 521 305	-	-	**160 938 147**
Total Revenue	**118 131 947**	**52 238 531**	**153 156 465**	**64 072 224**	**13 939 108**	**(53 844 437)**	**347 693 838**
Expenditure							
Employee Related Costs	73 506 106	30 070 075	39 774 352	38 353 894	6 067 433	-	**187 771 860**
Board Member Remuneration	1 317 073	-	-	-	-	-	**1 317 073**
Depreciation and Amortisation	2 505 129	6 250 910	16 294 395	9 920 397	-	(325)	**34 970 506**
Repairs and Maintenance	4 065 468	1 508 606	8 577 949	4 061 346	-	-	**18 213 369**
Data Licence Fees	-	2 231 576	-	1 593	-	-	**2 233 169**
Student Bursaries and Research Grants Paid	-	2 973 015	-	7 133 394	-	-	**10 106 409**
Antenna Infrastructure Services	-	1 535 250	3 270 641	-	-	-	**4 805 891**
Training Expenses	1 840 136	623 745	-	261 113	-	-	**2 724 994**
General Expenses	39 922 447	26 143 833	68 162 067	19 952 585	1 036 641	(53 844 437)	**101 373 136**
Net Losses on Foreign Exchange Transactions	731 766	376 843	(76 157)	(6 047)	-	-	**1 026 405**
Net Losses on Disposal of Property, Plant and Equipment	37 076	456 155	154 833	(82 856)	-	118 930	**684 138**
Impairment of Accounts Receivable	-	79 173	-	-	-	-	**79 173**
Total Expenditure	**123 925 201**	**72 249 181**	**136 158 080**	**79 595 419**	**7 104 074**	**(53 725 831)**	**365 306 124**
Surplus/(Deficit) for the year	**(5 793 254)**	**(20 010 650)**	**16 998 385**	**(15 523 195)**	**6 835 034**	**(118 605)**	**(17 612 285)**

2024	Administration R	Earth Observation R	Space Operations R	Space Science R	Space Engineering R	Eliminations R	Total R
Assets							
Segment Non-current Assets	326 636 424	22 244 977	94 434 184	76 293 884	-	(118 605)	**519 490 863**
Segment Current Assets	1 085 439 873	33 607 601	205 775 620	118 453 941	6 219 060	(585 090 051)	**864 406 044**
Total Segment Assets	**1 412 076 297**	**55 852 578**	**300 209 804**	**194 747 825**	**6 219 060**	**(585 208 656)**	**1 383 896 907**
Liabilities							
Segment Current Liabilities	301 589 890	7 676 921	(86 680 982)	(74 488 069)	(5 367 382)	585 090 051	**727 820 429**
Total Segment Liabilities	**301 589 890**	**7 676 921**	**(86 680 982)**	**(74 488 069)**	**(5 367 382)**	**585 090 051**	**727 820 429**
Capital Expenditure	**472 812**	**954 463**	**8 455 413**	**13 391 703**	**-**	**(330 000)**	**22 944 391**
Non-cash Items Excluding Depreciation and Amortisation							
Accrued Expenses	5 208 140	1 014 399	2 324 823	2 211 987	369 366	-	**11 128 715**
Deferred Revenue	-	12 104 442	420 261	245 289	-	-	**12 769 992**

SANSA implemented a cost recovery model from 1 April 2023, in terms of which shared services are recovered from operating programmes. These items are eliminated under other income and general expenses.

2023	Administration R	Earth Observation R	Space Operations R	Space Science R	Space Engineering R	Eliminations R	Total R
Revenue							
Revenue from Non-exchange Transactions							
Transfers and Subsidies Received	62 064 474	48 002 949	15 026 894	76 387 038	7 313 725	-	**208 795 080**
Revenue from Exchange Transactions							
Interest Income	5 901 055	646 471	1 902 329	1 403 990	-	-	**9 853 845**
Rendering of Services	-	34 884 701	90 091 095	6 652 551	-	-	**131 628 347**
Other Income	19 592	876 468	138 328	530 868	-	-	**1 565 256**
Impairment Reversal of Accounts Receivable	-	-	-	-	-		-
Total Revenue	**67 985 121**	**84 410 589**	**107 158 646**	**84 974 447**	**7 313 725**	**-**	**351 842 528**
Expenditure							
Employee and Employee Related Costs	58 285 467	23 654 502	33 749 022	36 851 384	6 202 297	-	**158 742 672**
Board Member Remuneration	2 180 607	-	-	-	-	-	**2 180 607**
Depreciation and Amortisation	1 991 072	3 416 458	14 155 441	7 186 401	-	-	**26 749 372**
Repairs and Maintenance	2 113 805	2 112 903	5 798 562	3 988 635	-	-	**14 013 905**
Data Licence Fees	-	2 732 142	-	-	-	-	**2 732 142**
Student Bursaries and Research Grants Paid	-	14 637 299	-	6 545 837	-	-	**21 183 136**
Antenna Infrastructure Services	-	-	10 612 159	-	-	-	**10 612 159**
Training Expenses	1 524 226	55 422	800 339	1 230 711	-	-	**3 610 698**
General Expenses	32 352 832	18 385 127	35 898 305	14 435 602	214 240	-	**101 286 106**
Net Losses on Foreign Exchange Transactions	102 376	1 173 530	(1 282 085)	82 913	-	-	**76 734**
Net Losses on Disposal of Property, Plant and Equipment	41 484	-	142 668	178 653	-	-	**362 805**
Impairment of Accounts Receivable	-	13 800	-	-	-	-	**13 800**
Total Expenditure	**98 591 869**	**66 181 183**	**99 874 411**	**70 500 136**	**6 416 537**	**-**	**341 564 136**
Surplus/(Deficit) for the year	**(30 606 748)**	**18 229 406**	**7 284 235**	**14 474 311**	**897 188**	**-**	**10 278 392**

2023	Administration R	Earth Observation R	Space Operations R	Space Science R	Space Engineering R	Eliminations R	Total R
Assets							
Segment Non-current Assets	328 705 781	27 997 579	102 446 099	73 073 402	-	-	**532 222 861**
Segment Current Assets	553 500 859	25 026 575	161 374 486	109 126 361	12 100 071	(470 241 267)	**390 887 085**
Total Segment Assets	**882 206 639**	**53 024 154**	**263 820 585**	**182 199 763**	**12 100 071**	**(470 241 267)**	**923 109 946**
Liabilities							
Segment Current liabilities	(260 624 259)	(186 250 235)	(125 955 554)	(145 927 669)	(904 737)	470 241 267	**(249 421 186)**
Total Segment Liabilities	**(260 624 259)**	**(186 250 235)**	**(125 955 554)**	**(145 927 669)**	**(904 737)**	**470 241 267**	**(249 421 186)**
Capital Expenditure	5 349 644	5 652 570	13 268 274	29 089 053	-	-	**53 359 541**
Non-cash Items Excluding Depreciation and Amortisation							
Accrued Expenses	3 915 877	2 743 723	2 152 810	1 730 335	377 619	-	**10 920 364**
Deferred Revenue	10 937 909	7 700 900	-	302 969	-	-	**18 941 778**

2.2 Measurement of Segment Surplus or Deficit, Assets and Liabilities

The accounting policies of the segments are the same as those described in the summary of significant accounting policies.

2.3 Information about Geographical Areas

The majority of the entity's operations are in the Gauteng province, with one facility located in Hermanus in the Western Cape.

	Notes	2024 R	2023 R
Revenue from Non-exchange Transactions			
Gauteng			
Administration		53 981 786	62 064 474
Earth Observation		26 762 978	48 002 949
Space Operations		30 331 380	15 026 894
Space Engineering		7 990 375	7 313 725
		119 066 519	**132 408 042**
Western Cape			
Space Science		52 764 755	76 387 038
Total Revenue from Non-exchange Transactions		**171 831 274**	**208 795 080**
Revenue from Exchange Transactions			
Gauteng			
Administration		64 150 161	5 920 647
Earth Observation		25 475 553	36 407 640
Space Operations		122 825 085	92 131 752
Space Engineering		5 948 733	-
		218 399 532	**134 460 039**
Western Cape			
Space Science		11 307 469	8 587 409
Total Revenue from Exchange Transactions		**229 707 001**	**143 047 448**

	Notes	2024 R	2023 R
Segment Expenditure			
Gauteng			
Administration		123 925 201	98 591 869
Earth Observation		72 249 181	66 181 183
Space Operations		136 158 080	99 874 411
Space Engineering		7 104 074	6 416 537
		339 436 536	**271 064 000**
Western Cape			
Space Science		79 595 419	70 500 136
Total Expenditure		**419 031 955**	**341 564 136**
Segment Non-current Assets			
Gauteng			
Administration		326 636 424	328 705 781
Earth Observation		22 244 977	27 997 579
Space Operations		94 434 184	102 446 099
		443 315 585	**459 149 459**
Western Cape			
Space Science		76 293 884	73 073 402
Total Non-current Assets		**519 609 469**	**532 222 861**
Segment Current Assets			
Gauteng			
Administration		701 295 957	553 500 859
Earth Observation		25 640 218	25 026 575
Space Operations		111 563 193	161 374 486
		838 499 368	**739 901 920**
Western Cape			
Space Science		25 906 675	109 126 361
Total Current Assets		**864 406 043**	**849 028 281**

3. Statement of Comparison of Budget and Actual Amounts

3.1 The South African National Space Agency (SANSA) presents its approved budget on a cash basis and the financial statements on an accrual basis.

3.2 The approved budget covers the fiscal period from 1 April 2023 to 31 March 2024.The Statement of Comparison of Budget and Actual Amounts is prepared using actual amounts as reported on the Statement of Financial Performance on a comparable basis to the original and/or revised budget. The original budget is approved together with the Annual Performance Plan prior to the start of the financial year, while the revised budget is an adjustment to the budget six months after the financial year.

3.3 The variance between the actual and budgeted values is explained as follows:

3.3.1 The unfavourable variance of R137.094 million relates mostly to the following:

The Earth Observation Public Awareness and Workshop
The balance of R298 505 is rolled forward to the financial year 2023/24 and to date no expenditure was incurred under the project and an interest of R22 836 capitalised against the grant funding, resulting in an unfavourable variance of R202 632.

Implementation of the Intra Africa Space Science, Technology, and Innovation Programme for South Africa
An amount of R953 282 was rolled forward to the financial year 2023/24. The continuation and implementation of the technology and innovation programme is on-going with an agreement concluded with the University of the Free State for the projects finalisation. An interest amount of R72 9268 was capitalised against the grant funding.No spending on the project by an amount of R1 026 209.

Training programme for Municipalities
The Municipality training was specifically targeted for the District Development Model Champions, Planning and Development officials, Public Works and Basic Services/Infrastructure/Technical Services, Community Services including disaster management, fire services, and spatial planning officials. There are three (3) provinces earmarked which included, Ngaka Modiri Molema District (North West), Waterberg District (Limpopo) and Ehlanzeni District (Mpumalanga).

An amount of R259 968 was rolled forward to the financial year 2023/24 and no expenses were incurred for the project and an interest amount to the value of R19 888 was capitalised against the grant funding.

Earth Obsevation Research and Innovation Fund (RDI)
The Establishment of the Earth Observation Research and Development Innovation Fund (RDI) project has a brought forward balance of R727 448. Interest to the value of R11 992 was capitalised against the grant funding. The Water Volume (quantity) project is on its third year of implementation with an amount of R1 134 750 spent to date. The balance at year end was ZERO with the project continuation in the next financial year under the SIH project.

Matjiesfontein Project
The unfavourable variance of R73.227 million is due to the contract for the land lease on the premises being effective from 1 October 2023 for six months into the current financial year. Much activity and tender processes have been completed and awarded. This expenditure would come to fruition in the 2024/25 financial year.

Space Weather Centre Establishment and Operation
A total of R30.446 million was brought forward from the 2021/22 DSI funding and the project reached the completion stage on 31 March 2023. All project funds received were released and committed to the completion of the building projects and implementation of the Space Weather Centre operations. There was also significant progress made with the development of new space weather products and with participation in global space weather visibility conferences and workshops. ISO certification was received in March 2022.

A further R10.826 million was received from the DSI in March 2023 for the operational expenses of the Space Weather Centre after establishment. An amount of R8.651 million was rolled forward to the 2023/24 financial year and operational expenses to the amount of R8.651 million were incurred. Interest of R278 601 was capitalised against the grant funding. The budget variance of R10 631 749 relates to no additional funding being received from the DSI for the 2023/24 financial year.

3.3.2 The unfavourable variance of R2.762 million on Research Grants was a result of the time difference between when grant institution releasing funds and our financial year end. Grants received for the International Space Weather Camp and high frequency radar activities are deferred as their spending will take place in the 2024/25 financial year. Grants were also received to support the salaries of engineers based at SANAE; these funds will roll forward to the 2024/25 financial year. Research activities and spending have increased since the 2022/23 financial year when activities were limited due to the COVID-19 pandemic. Researchers were able to travel internationally to attend workshops and conferences.

3.3.3 The favourable variance of R4.826 million was due to income from the Directorate of Geospatial (DGI), Armscor, the Department of Water and Sanitation (DWS) and HartRAO.

3.3.4 There is a favourable variance of R1.216 million with the major contributors being compass calibration services at Space Science and the charges by Space Operation for reduced electricity usage.

3.3.5 The favourable variance of R38.929 million on foreign income was due to additional revenue from a new client (ViaSat), Digital Earth Africa (DEA) income declaration and ad-hoc projects from existing clients such as KSAT as well as favourable exchange rates.

3.3.6 The favourable variance of R3.7 million was mainly due to the interest income earned on the positive bank balance.

3.3.7 Employee Costs were below budget by R9.831 million mostly due to the net savings due to vacancies and the hold on recruitment following the National Treasury's September 2023 cost containment measures. Additional spending was made for staff costs relating to the Matjiesfontein project. The bonus provision charge amounted to R11.174 million.

3.3.8 Repairs and Maintenance has a favourable variance of R9.121 million. Various maintenance projects are underway with funds already committed at financial year end. The budget normally makes provision for unexpected ad hoc breakdowns at the two technical sites and was not fully utilised this financial year.

3.3.9 The Data Licence Fees has a positive variance of R24.606 million which is mostly due to the decision made to only purchase licensing fees sufficient to meet demand from customers. Demand was lower than expected resulting in lower expenditure.

3.3.10 Student Bursaries and Research Grants Paid refers to postgraduate support from DSI grants and other grant related expenses funded by the DSI. There is a favourable variance of R33.488 million. This relates to the postgraduate support and other grant related expenses funded by the DSI. These expenses were below budget due slow spending on the grants project implementation. R7.093 million was spent on student bursaries, relative to a budget of R5.180 million. The EODC project expenditure is R2 million lower than expected due to the delay in the implementation of the storage capacity involving the procurement of computer equipment. The positive budget variance of R8 million on the SAEOS portal project is due to the lack of capacity to implement by the partner, SAEON.

3.3.11 Antenna Infrastructure Services relate to client-hosted infrastructure and the facilitation of civil works and the antenna bases for foreign customers .The expenditure is aligned with foreign income and expected to be recognised at the completion stage. There was a favourable variance of R1.939 million.

3.3.12 Training Expenses had a favourable variance of R6.866 million as a result of slow spending as training courses were either cancelled and or cheaper than anticipated as training platforms moved to virtual meetings which are less expensive.

3.3.13 General Expenditure had a favourable variance of R31.035 million due to the following:
The favourable variance of R2.8 million on advertising costs is due to the implementation against open purchase orders broughts forward from the previous financial year for the new branding, advertising, and communication initiatives with further expenditure committed at year end.

Data and internet services were below budget with R16.4 million due to lower usage from customers.

Other general expenses were below budget mainly due to underspending on recruitment costs R3.7 million, other research and grant costs R8.2 million and infrastructure upkeep of R4.6 million.

The unfavorable balance on Electricity was due an average increase of 18.65% in Eskom rates. A favourable budget variance of R2.9 million was also noted under rent and lease charges because the budget amount comprised amounts for the duration of multi-year contracts, whilst actual expenditure only relates to the 2023/24 financial year.

There were unfavourable variances under meeting costs - R1.7 million, fuel and oil - R4.6 million due to loadshedding, insurance - R1.6 million due to increased insurance premium because of the challenging insurance market and increase in asset base, and license fees - R3 million, conferences and seminars - R1.5 million, consulting fees - R1 million, consumables - R1 million, and staff recruitment - R600 thousand.

3.3.14 Plant and Machinery had a favourable variance of R52.917 million due to procurement in progress on high value assets for the Matjiesfontein project.

3.3.15 Software and Intangible had a favourable variance of R3.527 million due to procurement in progress for the projects.

3.3.16 Vehicles had a favourable variance of R289 thousand due to the procurement process being in progress to replace old vehicles.

3.3.17 Buildings had a favourable variance of R34.574 million due to the delay in project implementation for Matjiesfontein.

3.3.18 Office Equipment had a favourable variance of R3.123 million due to the delay in project implementation.

3.3.19 Furniture and Fittings had a favourable variance of R1.096 million due to delays in procuring, however, the funds were commitment at year end.

3.3.20 Computer Equipment had a favourable variance of R3.314 million as a result of delays with imports of some of the computer equipment.

3.3.21 Satellite Development had a favourable variance of R1.179 million. No expenditure was incurred on the Satellite Development Programme during the financial year pending finalisation of the SIH funding agreement and disbursement in March 2024.

3.3.22 Infrastructure had an unfavourable variance of R361 thousand resulting from the requirement for an access road at the Hermanus site entrance in adherence with National Key Point Regulations.

3.3.23 Reconciliation between the (Deficit)/Surplus for the year and the Cash Surplus as per the Statement of Comparison of Budget and Actual Amounts.

	2024 R	2023 R
(Deficit)/Surplus for the year	**(16 783 973)**	**10 278 389**
Reconciling items:		
Prior year Surplus Brought Forward	78 453 114	75 125 380
Depreciation	34 970 506	26 749 371
Impairment of Receivables	79 173	13 800
Payments for Capital Assets	(22 944 392)	(53 359 539)
Cash Surplus	**73 774 428**	**58 807 401**

4. Cash and Cash Equivalents

	2024 R	2023 R
Cash and Cash Equivalents	816 696 421	359 329 003
Total Cash and Cash Equivalents	**816 696 421**	**359 329 003**

4.1 Analysis of Cash and Cash Equivalents Balance

Cash in Bank for Operational Requirements (1)	131 296 233	162 651 664
Cash in Bank held for Conditional Grants (3)	**685 396 896**	**196 673 544**
Cash in Main Account (2)	11 567 172	19 483 153
Cash in Ring-fenced Grants Account	673 829 724	177 190 391
Total Cash in Bank Accounts	**816 693 129**	**359 325 208**

4.2 Cash on Hand

Cash on Hand	3 292	3 795
Total Cash on Hand	**3 292**	**3 795**
Total Cash and Cash Equivalents	**816 696 421**	**359 329 003**

(1) Cash held for operational requirements represents cash to be utilised to settle trade and other payables, provisions and commitments when the obligations are due.

(2) Cash held in the SANSA Main Account, Ring-fenced Grants received of R11.567 million (2023: R19 483 million) that were not yet transferred to the ring-fenced account at year end.

(3) Cash in the bank held for committed conditional grants is detailed in Note 11.

5. Receivables from Exchange Transactions

	2024 R	2023 R
Trade Receivables	37 470 524	23 150 317
Other Receivables	7 624 310	7 908 705
	45 094 834	**31 059 022**

5.1 Trade Receivables

	Gross R	Allowance for Impairment R	Net R
As at 31 March 2024			
Trade Debtors	45 707 029	(8 236 505)	37 470 524
Total	**45 707 029**	**(8 236 505)**	**37 470 524**
As at 31 March 2023			
Trade Debtors	31 592 184	(8 441 867)	23 150 317
Total	**31 592 184**	**(8 441 867)**	**23 150 317**

5.1.1 Ageing of Trade Receivables

	2024 R	2023 R
Current:		
0 - 30 days	25 841 209	19 798 241
Past Due:		
31-60 Days	9 266 818	107 565
61-90 Days	733 311	2 099 017
91-120 days	9 865 691	9 587 361
Total	**45 707 029**	**31 592 184**

5.1.2 Reconciliation for the Allowance of Impairment

	2024 R	2023 R
Impairment Reconciliation		
Opening Balance	(8 441 867)	(8 428 067)
Exchange Rate Differences	-	-
Impairment Allowance for the Year	(79 173)	(13 800)
Impairment Losses for the Year	-	-
Reversal of Impairment Allowance	284,535	-
Closing Balance	**(8 236 505)**	**(8 441 867)**

In determining the ability to recover debtors, the allowance for impairment of trade receivables has been made for debtors balances outstanding for longer than their normal payment terms. The impairment allowance was increased with an amount of R79 137 as a result of the slow paying debtors which are still active and an amount of R284 535 was reversed.The impairment allowance mainly comprises the provision of R8 392 568 million due from Statistics South Africa.

5.1.3 Trade Receivables – Fully Performing

Trade Receivables at the end of the year have been assessed for impairment, the outcome of which indicated that they are recoverable. The carrying amounts of fully performing financial assets included in Trade Receivables at year-end are:

	2024 R	2023 R
Trade Customers - Current	**25 841 209**	**19 798 241**

5.1.4 Trade Receivables – Past Due and Not Impaired

Trade receivables that are outside their normal payment terms range of 30 to 60 days are considered to be past due, depending on customers terms. The following represents an analysis of the past due financial assets that are past due but not impaired as these customers paid subsequent to year end:

	2024 R	2023 R
Trade Customers - Past Due	19 865 820	11 793 943
Allowance for Impairment	(8 236 505)	(8 441 867)
Trade Customers - Past Due and Not Impaired	**11 629 315**	**3 352 076**
Receivables from Local Debtors	13 868 584	13 129 501
Receivables from Foreign Debtors	31 838 445	18 462 683
Total Trade Debtors	**45 707 029**	**31 592 184**
Past Due:		
31-60 Days	9 266 818	107 565
61-90 Days	733 311	2 099 017
91-120 Days	9 865 691	9 587 361
Total	**19 865 820**	**11 793 943**

5.2 Other receivables

	Gross R	Allowance for Impairment R	Net R
As at 31 March 2024			
Prepaid Expenses (1)	4 210 122	-	4 210 122
Deposits (2)	3 337 945	-	3 337 945
Other Debtors	76 243	-	76 243
Total	**7 624 310**	**-**	**7 624 310**
As at 31 March 2023			
Prepaid Expenses (1)	4 558 411	-	4 558 411
Deposits (2)	3 240 564	-	3 240 564
Other Debtors	109 730	-	109 730
Total	**7 908 705**	**-**	**7 908 705**

(1) Prepaid Expenses consists of advance payments for projects with such contractual arrangements.
(2) Deposits are in respect of office premises and utilities as per the contractual requirements and are recoverable at the end of the contract term.

5.3 Credit Quality of Trade and Other Receivables

Trade Receivables consist of local customers from the public sector and international customers mainly from the US and Europe that are in the space industry. Trade Receivables are non-interest bearing and general collection terms are 30 to 60 days. The maximum exposure to credit risk at the reporting date is the carrying amount of Trade Receivables.

Other Receivables consist of deposits paid to suppliers. Other Receivables are non-interest bearing and their recovery is based on contractual arrangements with specific suppliers, such as delivery of services or the end of a contractual arrangement where an upfront deposit is required. The maximum exposure to credit risk at the reporting date is the carrying amount of Other Receivables.

Any allowance for impairment on trade and other receivables exists predominantly due to the possibility that these debts will not be recovered. Management assesses these debtors per directorate grouping where the customer shows signs of none recoverability. The debtors are disclosed as an Allowance for Impairment under Trade Customers.

5.4 Classification of Financial Assets

The Financial Assets of the entity are classified as follows:

Financial Assets	Classification	Carrying amount	
		2024 R	2023 R
Cash and Cash Equivalents			
Cash and Cash Equivalents	At amortised cost	816 696 421	359 329 003
Trade Receivables		**45 094 834**	**31 059 022**
Trade Debtors	At amortised cost	37 470 524	23 150 317
Other Receivables	At amortised cost	7 624 310	7 908 705
Other Receivables		**3 414 188**	**3 350 294**
Deposits	At amortised cost	3 337 945	3 240 564
Other Debtors	At amortised cost	76 243	109 730

6. Inventory

	2024 R	2023 R
Fuel	1 105 149	499 060
Spare Parts	1 509 640	-
Total Inventory	**2 614 789**	**499 060**

There was no provision for obsolescence provided at year end.

There were no inventories pledged as securities for liabilities

Inventories Recognised as an Expense

Fuel	5 705 343	5 463 336
Spare Parts	-	-

7. Property Plant and Equipment

	Land R	Leasehold Improvements R	Buildings R	Plant and Machinery R	Research Equipment R	Motor Vehicles R	Office Equipment R	Office Furniture R	Computer Equipment R	Exhibits R	Laboratory Equipment R	Infrastructure R	Total R
Carrying Values at 01 April 2023	**37 687 011**	**297 227**	**44 143 740**	**375 064 885**	**3 306 821**	**4 187 007**	**1 878 613**	**3 413 990**	**44 933 031**	**479 879**	**1 142 632**	**-**	**516 534 836**
Cost – Completed Assets	37 687 011	1 907 856	44 938 852	150 821 532	25 853 797	8 698 014	6 771 094	8 954 184	85 161 621	1 861 617	4 728 423	-	377 384 001
Cost – Capital under Construction	-	236 880	4 842 594	316 230 259	-	-	-	-	4 066 249	-	-	-	325 375 982
Accumulated Depreciation	-	(1 847 509)	(5 637 706)	(91 986 906)	(22 546 976)	(4 511 007)	(4 892 481)	(5 540 194)	(44 294 839)	(1 381 738)	(3 585 791)	-	(186 225 147)
Acquisitions	**-**	**-**	**2 381 209**	**5 838 953**	**161 698**	**2 400 884**	**228 915**	**670 502**	**10 165 177**	**-**	**581 802**	**361 152**	**22 790 292**
Acquisitions at Cost	-	-	1 793 022	5 838 953	161 698	2 400 884	228 915	670 502	7 085 547	-	581 802	361 152	19 122 476
Capital under Construction – Additions	-	-	588 187	-	-	-	-	-	3 079 629	-	-	-	3 667 816
Depreciation	**-**	**(23 419)**	**(2 250 219)**	**(13 842 321)**	**(1 306 880)**	**(576 509)**	**(414 712)**	**(949 995)**	**(11 817 677)**	**(177 681)**	**(596 350)**	**(1 529)**	**(31 957 291)**
Transfers	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost – Completed Assets	-	-	5 430 781	-	-	-	-	-	-	-	-	-	5 430 781
Cost – Capital under Construction	-	-	(5 430 781)	-	-	-	-	-	-	-	-	-	(5 430 781)
Accumulated Impairment	-	-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
Carrying Value of Disposals:	**-**	**-**	**-**	**(44 962)**	**(766)**	**(35 668)**	**(5 883)**	**(28 968)**	**(588 919)**	**-**	**-**	**-**	**(705 166)**
Disposals at Cost	-	-	-	(97 052)	(7 200)	(118 765)	(84 244)	(198 237)	(5 463 668)	-	-	-	(5 969 165)
Accumulated Depreciation	-	-	-	52 090	6 434	83 097	78 361	169 269	4 874 749	-	-	-	5 264 000
Carrying values at 31 March 2024	**37 687 011**	**273 808**	**44 274 730**	**367 016 556**	**2 160 873**	**5 975 714**	**1 686 934**	**3 105 529**	**42 691 611**	**302 198**	**1 128 084**	**359 623**	**506 662 671**
Cost – Completed Assets	37 687 011	1 907 856	52 162 655	156 563 434	26 008 295	10 980 133	6 915 766	9 426 449	86 783 500	1 861 617	5 310 225	361 152	395 968 093
Cost – Capital under Construction	-	236 880	-	316 230 259	-	-	-	-	7 145 878	-	-	-	323 613 017
Accumulated Depreciation	-	(1 870 928)	(7 887 925)	(105 777 137)	(23 847 422)	(5 004 419)	(5 228 832)	(6 320 920)	(51 237 767)	(1 559 419)	(4 182 141)	(1 529)	(212 918 439)
Carrying values at 01 April 2022	**37 687 011**	**321 974**	**32 564 446**	**375 427 221**	**4 769 327**	**3 535 149**	**1 029 522**	**2 209 585**	**29 083 836**	**531 839**	**2 042 261**	**-**	**489 202 171**
Cost – Completed Assets	37 687 011	1 907 856	13 876 324	139 231 791	25 742 720	7 839 338	5 757 042	7 094 413	53 743 866	1 701 192	4 728 423	-	299 309 976

	Land R	Leasehold Improvements R	Buildings R	Plant and Machinery R	Research Equipment R	Motor Vehicles R	Office Equipment R	Office Furniture R	Computer Equipment R	Exhibits R	Laboratory Equipment R	Infrastructure R	Total R
Cost – Capital under Construction	-	236 880	23 058 115	316 230 259	-	-	-	-	14 190 917	-	-	-	353 716 171
Accumulated Depreciation	-	(1 822 762)	(4 369 993)	(80 034 829)	(20 973 393)	(4 304 189)	(4 727 520)	(4 884 828)	(38 850 947)	(1 169 353)	(2 686 162)	-	(163 823 976)
Acquisitions	**-**	**-**	**12 874 775**	**11 608 594**	**133 766**	**1 178 156**	**1 242 505**	**902 386**	**23 198 638**	**160 425**	**-**	**-**	**51 299 243**
Acquisitions at Cost	-	-	10 040 848	11 608 594	133 766	1 178 156	1 242 505	902 386	19 132 389	160 425	-	-	44 399 068
Capital under Construction – Additions	-	-	2 833 927	-	-	-	-	-	4 066 249	-	-	-	6 900 176
Restated depreciation	**-**	**(24 747)**	**(1 267 713)**	**(11 962 850)**	**(1 592 799)**	**(378 932)**	**(375 340)**	**(792 704)**	**(7 188 619)**	**(212 385)**	**(899 629)**	**-**	**(24 695 716)**
Depreciation	-	(24 747)	(1 267 713)	(11 962 850)	(1 592 799)	(378 932)	(375 340)	(792 704)	(7 188 619)	(212 385)	(899 629)	-	(24 695 716)
Restatement	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers	**-**	**-**	**(27 768)**	**-**	**-**	**-**	**-**	**-**	**27 768**	**-**	**-**	**-**	**-**
Cost – Completed Assets	-	-	21 021 681	-	-	-	-	1 118 015	14 190 917	-	-	-	36 330 613
Cost – Capital under Construction	-	-	(21 049 449)	-	-	-	-	(1 118 015)	(14 163 149)	-	-	-	(36 330 613)
Accumulated Impairment	-	-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-
Carrying value of Disposals:	**-**	**-**	**-**	**(8 080)**	**(3 473)**	**(147 366)**	**(18 074)**	**(23 292)**	**(188 593)**	**-**	**-**	**-**	**(388 878)**
Cost – Completed Assets	-	-	-	(18 853)	(22 689)	(319 480)	(228 453)	(160 630)	(1 933 320)	-	-	-	(2 683 423)
Accumulated Depreciation	-	-	-	10 773	19 216	172 114	210 379	137 338	1 744 727	-	-	-	2 294 545
Carrying values at 31 March 2023	**37 687 011**	**297 227**	**44 143 740**	**375 064 885**	**3 306 821**	**4 187 007**	**1 878 613**	**3 413 990**	**44 933 031**	**479 879**	**1 142 632**	**-**	**516 534 836**
Cost – Completed Assets	37 687 011	1 907 856	44 938 852	150 821 532	25 853 797	8 698 014	6 771 094	8 954 184	85 161 621	1 861 617	4 728 423	-	377 384 001
Cost – Capital under Construction	-	236 880	4 842 594	316 230 259	-	-	-	-	4 066 249	-	-	-	325 375 982
Accumulated Depreciation	-	(1 847 509)	(5 637 706)	(91 986 906)	(22 546 976)	(4 511 007)	(4 892 481)	(5 540 194)	(44 294 839)	(1 381 738)	(3 585 791)	-	(186 225 147)

7.1 Repairs and Maintenance

	Buildings R	Computer Software R	Plant and Machinery R	Research Equipment R	Vehicles R	Office Equipment R	Furniture and Fittings R	Computer Equipment R	Laboratory Equipment R	Exhibits R	Infrastructure PPE R	Total R
2024	5 079 400	6 078 802	4 924 605	428 113	423 135	15 052	308 224	484 183	471 856	-	-	**18 213 370**
2023	4 174 152	4 840 407	2 685 265	321 205	121 845	55 237	7 120	1 319 939	488 735	-	-	**14 013 905**

7.2 Work in progress

	2024 R	2023 R
Work in progress consists of:		
Leasehold Improvements (Earth Observation Offices - Innovation Hub)	236 880	236 880
Computer Equipment - (Building Management System and Access Control - Hermanus)	7 145 878	4 066 249
Buildings (Building Management System - Hermanus)	-	4 842 594
Plant and Machinery (Satellite Development)	316 230 259	316 230 259
	323 613 017	**325 375 982**

Impairment Assessment on Satellite Development Programme

Funding has been availed for the completion of the Satellite Development Programme, under the Space Infrastructure Hub project, where the first tranche of project funding was received in March 2024.

7.3 Land

	2024 R	2023 R
Recognition of Land as at 31 March	**37 687 011**	**37 687 011**

Key Judgements and Assumptions

During the establishment of SANSA in 2010, the Hartebeeshoek facility was acquired from the CSIR through a business transfer agreement. The transfer included the perpetual right of use of the farm at Hartebeeshoek which is legally registered to the National Government of the Republic of South Africa. In applying iGRAP 18 on Recognition and Derecognition of Land, the standard directs that an entity should assess whether there are indicators of control of land such as legal ownership and/or right to direct access to land and to restrict and deny others of access to land. In applying this principle, SANSA had uninterrupted use of the farm and controls the economic activity on the land through the Space Operations Programme. The facility is also a National Key Point and SANSA has the right to grant or deny access to the premises, therefore a conclusion was reached to recognise the value of the land as an asset.

To determine the cost of the land for recognition in Property, Plant and Equipment, a valuation of the land was performed by Marsh Risk Consulting in March 2020 and the aggregated value of R36 300 000 as at 31 March 2020 was obtained. The valuation assessment was discounted to a value for recognition on 1 April 2019.

Details of Property Description and Registered Owner

Property Description	Remaining Extent of the Farm Hartebeesthoek No. 502,
Registration Division	JQ, Province of Gauteng
Title Deed Number	T7347/1948
Registered Owner	National Government of the Republic of South Africa
Extent	434.8105Ha

Property Description	Portion 1 of the Farm Hartebeesthoek No. 502,
Registration Division	JQ, Province of Gauteng
Title Deed Number	T29540/1962
Registered Owner	Republiek van Suid-Afrika
Extent	485.4252Ha

Property Description	Portion 2 of the Farm Hartebeesthoek No. 502,
Registration Division	JQ, Province of Gauteng
Title Deed Number	T850/1961
Registered Owner	National Government of the Republic of South Africa
Extent	719.4869Ha

Property Description	Portion 3 of the Farm Hartebeesthoek No. 502,
Registration Division	JQ, Province of Gauteng
Title Deed Number	T29441/1962
Registered Owner	National Government of the Republic of South Africa
Extent	1 104.4931Ha

7.3 Insurance Payouts Received

	2024 R	2023 R
Insurance Payouts Received	**121 480**	**19 592**

During the year a total amount of R121,480 (2023 :R19,592) was received as an insurance pay out for assets that were either damaged or stolen as follows:

	2024 R	2023 R
Computer Equipment	121 480	19 592
Total	**121 480**	**19 592**

7.4 Change in Estimate

Property Plant and Equipment

In terms of GRAP 17 requirements, the useful lives of all assets were assessed which resulted in a change in the expected usage in all asset classes. The remaining useful life expectations of some asset items differed from previous estimates. This resulted in a revision of some of the previous estimates, which were accounted for as a change in accounting estimate. The effect of this revision is a decrease in the depreciation charges for the current period of R2 123 390.

Changes were made to the estimates of the expected useful lives of assets during the year. Extensions ranged between 1 and 3 years and the impact is detailed below:

	Value Derived using the Original Estimate R	Value Derived using Amended Estimate R	Value Impact of Change in Estimate R
Asset Category and Useful Life Extensions			
Computer Equipment	1 700 919	965 884	735 035
Computer Software	370 773	228 337	142 436
Exhibits	110 563	64 635	45 928
Laboratory Equipment	595 978	258 849	337 129
Leasehold Improvement Assets	2 334	1 218	1 116
Office Equipment	51 341	26 147	25 194
Office Furniture	86 957	51 737	35 220
Plant and Machinery	609 805	176 236	433 569
Research Equipment	802 752	468 764	333 988
Motor Vehicles	97 601	63 826	33 774
	4 429 023	**2 305 634**	**2 123 390**

8. Intangible Assets

	2024 R	2023 R
At Cost Less Accumulated Amortisation and Accumulated Impairment Losses	**12 828 193**	**15 688 025**

The entity does not have internally generated intangible assets.

8.1 Reconciliation of Carrying Value of Intangible Assets

31 March 2024	Intellectual Property R	Computer Software R	Total R
Carrying Values at 01 April 2023	**59 560**	**15 628 465**	**15 688 025**
Cost – Completed Assets	2 822 660	52 225 562	55 048 222
Cost – Work in Progress	-	-	-
Accumulated Impairment	(1 440 000)	-	(1 440 000)
Accumulated Amortisation	(1 323 100)	(36 597 097)	(37 920 197)

31 March 2024

	Intellectual Property R	Computer Software R	Total R
Acquisitions	**-**	**154 100**	**154 100**
Cost – Completed Assets	-	154 100	154 100
Cost – Work in Progress	-	-	-
Amortisation	**(19 252)**	**(2 993 926)**	**(3 013 178)**
Transfers	**-**	**-**	**-**
Cost – Completed Assets	-	-	-
Cost – Capital under Construction	-	-	-
Accumulated Impairment	-	-	-
Accumulated Depreciation	-	-	-
Disposals	**-**	**(753)**	**(753)**
Cost – Completed Assets	-	(79 435)	(79 435)
Cost – Work in Progress	-	-	-
Accumulated Amortisation	-	78 682	78 682
Carrying Values at 31 March 2024	**40 308**	**12 787 885**	**12 828 193**
Cost – Completed Assets	2 822 660	52 300 226	55 122 886
Cost – Work in Progress	-	-	-
Accumulated Impairment	(1 440 000)	-	(1 440 000)
Accumulated Amortisation	(1 342 352)	(39 512 341)	(40 854 693)

31 March 2023

	Intellectual Property R	Computer Software R	Total R
Carrying Values at 01 April 2022	**78 812**	**15 604 244**	**15 683 056**
Cost – Completed Assets	2 822 660	44 980 557	47 803 217
Cost – Work in Progress	-	5 240 175	5 240 175
Accumulated Impairment	(1 440 000)	-	(1 440 000)
Accumulated Amortisation	(1 303 848)	(34 616 488)	(35 920 336)
			-
Acquisitions	**-**	**2 060 296**	**2 060 296**
Cost – Completed Assets	-	2 060 296	2 060 296
Cost – Work in Progress	-	-	-

31 March 2023	Intellectual Property R	Computer Software R	Total R
Amortisation	**(19 252)**	**(2 034 404)**	**(2 053 656)**
Transfers	**-**	**-**	**-**
Cost – Completed Assets		5 240 175	5 240 175
Cost – Capital under Construction		(5 240 175)	(5 240 175)
Accumulated Impairment			
Accumulated Depreciation			
Disposals	**-**	**(1 671)**	**(1 671)**
Cost – Completed Assets	-	(55 466)	(55 466)
Accumulated Amortisation	-	53 795	53 795
Carrying Values at 31 March 2023	**59 560**	**15 628 465**	**15 688 025**
Cost – Completed Assets	2 822 660	52 225 562	55 048 222
Cost – Work in Progress	-	-	-
Accumulated Impairment	(1 440 000)	-	(1 440 000)
Accumulated Amortisation	(1 323 100)	(36 597 097)	(37 920 197)

9. Trade and other Payables

	2024 R	2023 R
Trade Creditors	4 701 086	11 233 306
Other Creditors	1 435 765	1 268 073
Income Received in Advance (1)	12 769 992	18 941 778
Accrued Expenses	2 824 693	2 487 498
Accrued Leave (2)	8 074 088	8 193 969
Accrual for 13th Cheque Savings	229 934	238 898
Total Creditors	**30 035 557**	**42 363 522**

(1) Income received in advance consists of prepayments from customers of R13m (2023: R19m).

(2) Leave accrues to employees on a monthly basis, based on their contract of employment. The accrual is an estimate of the amount due at the reporting date. Employees may not accumulate more than 25 leave days.

9.1 Classification of Financial Liabilities

The Financial Liabilities of the entity are classified as follows:

Financial Liabilities	Classification	Amount	
		2024 R	2023 R
Trade and Other Payables			
Trade Creditors	At amortised cost	4 701 086	11 233 306
Other Creditors	At amortised cost	1 435 765	1 268 073
Accrued Expenses	At amortised cost	11 128 716	10 920 365

10. Provisions

	2024 R	2023 R
Performance Bonus Provision	12 067 779	11 886 425
Total Provisions	**12 067 779**	**11 886 425**

10.1 Reconciliation of Movement in Provisions

	2024 R	2023 R
Balance at Beginning of Year	11 886 425	22 599 691
Reversal of Prior Year Provision	-	(11 936 081)
Contributions to Provision	11 086 027	11 628 554
Performance Bonus Pay Out for 2021/22	-	(10 405 739)
Performance Bonus Pay Out for 2022/23	(10 904 674)	-
Balance at End of Year	**12 067 779**	**11 886 425**

The bonus provision represents the estimated liability in respect of performance bonuses payable to employees. Performance bonuses are not guaranteed and are based on the assessed performance of the entity as well as employees performance for the financial year ending 31 March 2024

11. Conditional Grants

	2024 R	2023 R
Transfer Payment from Executive Authority	599 448 844	110 503 838
Transfer Payment from Other Departments/Entities	86 163 335	84 562 489
Total Conditional Grants	**685 612 179**	**195 066 327**

The unutilised conditional grants are made up of amounts not yet spent on projects as follows:

Satellite Development Programme (Note 12.1)	1 270 255	1 179 985
Assembly, Integration and Testing Facility Upgrade (Note 12.2)	41 578 779	83 222 259
Earth Observation Data Centre (Note 12.3)	841 085	2 071 921
South African Earth Observation System of Systems (SAEOSS) Portal (Note 12.4)	7 500 665	8 315 765
Postgraduate Student Bursary Support Programme (Note 12.5)	4 057 726	4 451 686
Research and Human Capital Development Grants (Note 12.6)	6 957 575	9 302 521
Earth Observation Research and Innovation Fund (RDI) (Note 12.7)	-	727 448
Earth Observation Public Awareness (Note 12.8)	321 340	298 504
Implementation of the Intra Africa Space Science Technology and Innovation Programme (IASSTI) (Note 12.9)	1 026 209	953 282
Space Weather Operational Centre (Note 12.10)	202 632	9 282 986
Municipal Training (Note 12.11)	279 856	259 968
Matjiesfontein (Note 12.12)	78 925 905	75 000 000
Space Science Technology (Note 12.13)	59 512 616	-
Space Weather Operations (Note 12.14)	278 601	-
SIH (Note 12.15)	482 428 562	-
GEO Youth Leaders (12.16)	430 375	-
	685 612 181	**195 066 326**

12. Transfers and Grants

	2024 R	2023 R
Operational Transfers	**141 087 000**	**140 755 000**
Baseline Allocation	141 087 000	140 755 000
Conditional Transfers	**30 744 275**	**68 040 080**
Conditions Met – Transferred to Revenue (Notes 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 12.10, 12.11, 12.12, 12.13, 12.14, 12.15, 12.16)	30 744 275	68 040 080
Transfers DSI	-	-
Total Transfers and Grants	**171 831 275**	**208 795 080**
	-	-

12.1 Satellite development programme - EOSAT 1

Balance Unspent at Beginning of Year	1 179 985	1 139 442
Interest Capitalised	90 270	40 543
Conditions Still to be Met – Remain in Liabilities	**1 270 255**	**1 179 985**

The Satellite Development Programme is a multi-year project funded through transfers from the DSI. Denel Dynamics was appointed as the main contractor for the development of the satellite. The project was placed on hold in the 2018/19 financial year pending the sourcing of additional funding to complete the project.

12.2 Assembly, Integration and Test Facility

Balance Unspent at Beginning of Year	83 222 259	58 502 246
Current Year Receipts	21 766 000	21 684 000
Transfer of Funds to Space Science Technology Grant	(69 008 164)	-
Interest Capitalised	5 598 684	3 036 013
Conditions Still to be Met – Remain in Liabilities	**41 578 779**	**83 222 259**

12.3 Earth Observation Data Centre

Balance Unspent at Beginning of Year	2 071 921	8 330 027
Current Year Receipts	-	-
Conditions Met – Transferred to Revenue	(1 368 362)	(6 554 501)
Interest Capitalised	137 526	296 395
Conditions Still to be Met – Remain in Liabilities	**841 085**	**2 071 921**

	2024 R	2023 R
12.4 South African Earth Observation System of Systems (SAEOSS) Portal		
Balance Unspent at Beginning of Year	8 315 765	1 190 326
Transfer from AfriGEOSS	-	-
Current Year Receipts		7 083 085
Conditions Met – Transferred to Revenue	(1 442 955)	-
Interest Capitalised	627 855	42 354
Conditions Still to be Met – Remain in Liabilities	**7 500 665**	**8 315 765**
12.5 Postgraduate Student Bursary Support Programme		
Balance Unspent at Beginning of Year	4 451 686	4 959 283
Current Year Receipts	6 500 000	5 811 000
Current Year Refunds	-	-
Interest Capitalised	199 415	191 895
Conditions Met – Transferred to Revenue	(7 093 375)	(6 510 492)
Conditions Still to be Met – Remain in Liabilities	**4 057 726**	**4 451 686**
12.6 Research Grants		
Balance Unspent at Beginning of Year	9 302 521	6 077 204
Current Year Receipts	6 078 406	10 702 739
Interest Capitalised	32 545	-
Refunds to Funders	-	-
Conditions Met – Transferred to Revenue	(8 455 896)	(7 477 422)
Conditions Still to be Met – Remain in Liabilities	**6 957 575**	**9 302 521**

The grants were received from the the following institutions, National Research Foundation (NRF), SAASTA, the Department of Science and Innovation (DSI) and Rhodes University. Grants were awarded to particular researchers who successfully applied at these institutions. Grants received are for multiple purposes and include running expenses, travel funds as well as salaries. Some of the grants were purely mobility grants. Grants awarded can range from single-year grants to multi-year grants depending on the conditions of the grant.

	2024 R	2023 R
12.7 Earth Observation Research Development and Innovation Fund (RDI)		
Balance Unspent at Beginning of Year	727 448	1 343 125
Current Year Receipts DSI	-	11 000 000
Current Year Receipts CSIR	-	2 608 696
Interest Capitalised	11 992	47 790
SANSA Top Up	395 310	-
Conditions Met – Transferred to Revenue	(1 134 750)	(14 272 163)
Conditions Still to be Met – Remain in Liabilities	**-**	**727 448**
12.8 Earth Observation Public Awareness		
Balance unspent at beginning of year	298 504	604 805
Current year receipts	-	-
Interest Capitalised	22 836	21 520
Conditions Met – Transferred to Revenue	-	(327 821)
Conditions Still to be Met – Remain in Liabilities	**321 340**	**298 504**
12.9 Implementation of the Intra Africa Space Science Technology and Innovation Programme (IASSTI)		
Balance Unspent at Beginning of Year	953 282	1 052 750
Interest Capitalised	72 927	37 458
Conditions Met – Transferred to Revenue	-	(136 926)
Conditions Still to be Met – Remain in Liabilities	**1 026 209**	**953 282**
12.10 Space Weather Establishment Centre		
Balance Unspent at Beginning of Year	9 282 986	30 446 740
Current Year Receipts	-	10 826 554
Interest Capitalised	26 444	511 408
Transferred to Space Weather Operations	(8 651 237)	-
Conditions Met – Transferred to Revenue	(455 561)	(32 501 716)
Conditions Still to be Met – Remain in Liabilities	**202 632**	**9 282 986**
12.11 Municipal Training		
Balance Unspent at Beginning of Year	259 968	501 234
Current Year Receipts	-	-
Interest Capitalised	19 888	17 781
Conditions Met – Transferred to Revenue		(259 041)
Conditions Still to be Met – Remain in Liabilities	**279 856**	**259 968**

	2024 R	2023 R
12.12 Matjiesfontein		
Balance Unspent at Beginning of Year	75 000 000	-
Current Year Receipts	-	75 000 000
Interest Capitalised	5 698 418	-
Conditions Met – Transferred to Revenue	(1 772 513)	-
Conditions Still to be Met – Remain in Liabilities	**78 925 905**	**75 000 000**
12.13 Space Science Technology		
Balance Unspent at Beginning of Year	-	-
Current Year Receipts	-	-
Transfer from AIT Grant	69 008 164	-
Interest Capitalised	1 004 452	-
Transferred to the Department of Science and Innovation	(10 500 000)	-
Conditions Still to be Met – Remain in Liabilities	**59 512 616**	**-**
12.14 Space Weather Operations		
Balance Unspent at Beginning of Year	-	-
Current Year Receipts	-	-
Transfer from Space Weather Establishment	8 651 237	-
Interest Capitalised	278 601	-
Conditions Met – Transferred to Revenue	(8 651 237)	-
Management Fee - Transferred to Revenue	-	-
Conditions Still to be Met – Remain in Liabilities	**278 601**	**-**
12.15 SIH		
Balance Unspent at Beginning of Year	-	-
Current Year Receipts	481 000 000	-
Interest Capitalised	1 428 562	-
Conditions Met – Transferred to Revenue	-	-
Management Fee – Transferred to Revenue	-	-
Conditions Still to be Met – Remain in Liabilities	**482 428 562**	**-**
12.16 GEO Youth Leaders		
Balance Unspent at Beginning of Year	-	-
Current Year Receipts	800 000	-
Interest Capitalised	-	-
Conditions Met – Transferred to Revenue	(369 625)	-
Conditions Still to be Met – Remain in Liabilities	**430 375**	**-**

13. Operating Lease Liability

The following liabilities have been recognised in respect of non-cancellable operating leases:

	2024 R	2023 R
Balance at Beginning of Year	104 913	128 377
Operating Lease Liability Movement	-	(23 464)
Total Operating Lease Liability	**104 913**	**104 913**

The previous lease with The Innovation Hub Management Company SOC Ltd for office space ended on 30 September 2022. A new operating lease was signed for a further period of 24 months ending 30 September 2024.

13.1 Amounts Payable Under Operating Leases – Lessee

At the reporting date the entity had outstanding commitments under non-cancellable operating leases, which fall due as follows:

	2024 R	2023 R
Up to One Year	**3 794 306**	**3 111 466**
Buildings	2 727 700	2 784 200
Office Equipment	951 606	327 266
Land	115 000	-
Two to Five Years	**1 391 631**	**5 777 963**
Buildings	-	5 728 100
Office Equipment	931 631	49 863
Land	460 000	-
More than Five Years	**2 817 500**	**-**
Buildings	-	-
Office Equipment	-	-
Land	2 817 500	-
Total Operating Lease Arrangements	**8 003 437**	**8 889 429**

The entity has operating lease agreements for the following classes of assets, which are only significant collectively:
- Buildings – for the rental of office space.
- Office Equipment – for the rental of copier machines and coffee machines

The lease agreement for the building is for a period of 2 years with an escalation fee of 8% annually, the amounts are paid on a monthly basis.

SANSA signed a land lease agreement with Matjiesfontein for 30 years – effective from 1 October 2023,with rental of R 100 000 per annum. Annual escalation is in accordance with the South African Consumer Price Index.

13.2 Amounts Receivable Under Operating Leases – Lessor

At the reporting date the entity had outstanding commitments under non-cancellable operating leases, which fall due as follows:

	2024 R	2023 R
Up to One Year	**1 000**	**-**
Land	1 000	-
Two to Five Years	**4 000**	**-**
Land	4 000	-
More than Five Years	**24 500**	**-**
Land	24 500	-

SANSA is subletting a portion of the Matjiesfontein land to SARAO for 30 years, SARAO shall contribute the amount of R1 000.00 (One Thousand Rand) per annum towards the annual rental amount due to the Matjiesfontein Village (Pty) Ltd. This contribution is exclusive of value-added tax (VAT), payable annually in advance and per invoice raised, the first (1st) payment to be effected on the commencement date and all rental payments thereafter on or before each anniversary of the commencement date.

14. Interest

Total Interest Earned from Bank Accounts	28 687 730	14 061 441
Interest Earned on Committed Grant Funding Capitalised	(15 250 414)	(4 207 596)
Interest Earned on Operational Funding in Bank Accounts	**13 437 316**	**9 853 845**

The interest bearing on the ring-fenced grant was capitalised in the current year as per the agreement with funders.

15. Rendering of Services

Services to Local Public Entities	23 511 355	22 349 215
Services to Local Private Entities	6 500 512	7 029 634
Services to Foreign Clients	130 926 279	102 249 498
	161 766 455	**131 628 347**

	2024 R	2023 R

16. Other Income

Sundry Income	222 632	103 917
Rent Received	434 550	538 156
Insurance Pay-out	121 480	19 592
Expense Recovery	708 439	903 591
Total Other Income	**1 487 101**	**1 565 256**

17. Employee Related Costs

Basic Salary	154 864 953	137 889 328
Contractors and Temp	10 766 280	10 872 052
Remote Location Allowance	5 045 564	4 291 512
Data and Cell Allowance	752 845	819 247
Bonus Provision Charge/(Credit)	11 173 724	(307 527)
Overtime	2 376 877	1 508 124
Other Employee Related Costs	2 791 616	3 669 937
Total Employee Related Costs	**187 771 859**	**158 742 673**

Other employee costs is inclusive of leave payment, workmans compensation and acting allowance.

Remuneration of Key Management Personnel of SANSA during the year:

Remuneration of the Chief Executive Officer: Dr V Munsami (Resigned February 2022)		
Performance Bonus	-	215 497
Total	**-**	**215 497**
Remuneration of the Chief Executive Officer: Mr H Mudau (Appointed April 2023)		
Annual Remuneration	2 800 000	-
Cell Phone Allowance	14 760	-
Total	**2 814 760**	**-**
Remuneration of the Acting Chief Financial Officer: Ms L Engelbrecht (Appointed September 2021–August 2022)		
Acting Allowance	-	85 515
Total	**-**	**85 515**

	2024 R	2023 R
Remuneration of the Chief Financial Officer: Mr B Jena (Appointed September 2022)		
Annual Remuneration	2 544 000	1 400 000
Performance Bonus	121 847	-
Cell Phone Allowance	14 760	6 581
	2 680 607	**1 406 581**
Remuneration of the Executive Director Space Programme: Mr A Khatri (Resigned February 2022)		
Performance Bonus	-	161 075
Total	**-**	**161 075**
Remuneration of the Acting Executive Director Space Programme: Mr H Burger (Appointed March 2022–February 2023)		
Acting Allowance	-	170 154
Total	**-**	**170 154**
Remuneration of the Managing Director Space Operations: Mr R Hodges		
Annual Remuneration	1 967 603	1 785 871
Performance Bonus	151 057	160 441
Car and Travel Allowance	81 308	77 732
Cell Phone Allowance	14 760	14 760
Total	**2 214 727**	**2 038 804**
Remuneration of the Commercial Services Executive: Ms A Mlisa (Appointed March 2022)		
Annual Remuneration	-	1 704 916
Performance Bonus	-	153 115
Cell Phone Allowance	-	14 760
Total	**-**	**1 872 791**
Remuneration of the Acting Chief Executive Officer: Ms A Mlisa (Appointed March 2022–February 2023)		
Acting Allowance	-	234 440
Total	**-**	**234 440**

	2024 R	2023 R
Remuneration of the Managing Director Space Science: Dr L McKinnell (until August 2023)		
Annual Remuneration	820 803	1 132 508
Performance Bonus	163 963	157 774
Cell Phone Allowance	5 715	13 530
Leave Pay	203 815	-
Total	**1 194 295**	**1 303 811**
Remuneration of the Research, Development & Innovation Executive: Dr L McKinnell (appointed December 2022)		
Annual Remuneration	-	666 667
Cell Phone Allowance	-	4 920
Total	**-**	**671 587**
Remuneration of the Acting Executive Director Corporate Services: Ms V Ntshoko (Appointed December 2021–June 2022)		
Acting Allowance	-	46 406
	-	**46 406**
Remuneration of the Acting Strategy & Governance Executive: Ms V Ntshoko (Appointed August 2022–January 2023)		
Acting Allowance	-	92 811
	-	**92 811**
Remuneration of the Executive Director: Enterprise Services: Ms S Mazibuko (Appointed July 2022)		
Annual Remuneration	2 544 000	1 800 000
Performance Bonus	158 722	-
Cell Phone Allowance	14 760	11 070
	2 717 482	**1 811 070**
Remuneration of the Acting Chief Executive Officer: Ms S Mazibuko (Appointed for April 2023)		
Acting allowance	25 247	25 247
	25 247	**25 247**
Remuneration of the Acting Managing Director Earth Observation: Mr M Mukwevho (Appointed March 2022–Resigned August 2022)		
Acting Allowance	-	67 736
	-	**67 736**

	2024 R	2023 R
Remuneration of the Acting Chief Information Officer: Mr T Ramasangoana (Appointed March 2022–February 2023)		
Acting Allowance	-	170 154
	-	**170 154**
Remuneration of the Acting Commercial Services Executive: Mr T Strydom (Appointed July 2022–February 2023)		
Acting Allowance	-	103 041
	-	**103 041**
Remuneration of the Acting Managing Director Space Engineering: Mr T Mokgalagadi (Appointed April 2023–November 2023)		
Acting Allowance	131 173	15 469
	131 173	**15 469**
Remuneration of the Acting Managing Director Earth Observation: Dr S Bernard (Appointed September 2022–March 2023)		
Acting Allowance	-	94 830
	-	**94 830**
Remuneration of the Acting Executive Strategy and Governance: Mr M Kabai (Appointed February 2023–March 2023)		
Acting Allowance	-	15 469
	-	**15 469**
Remuneration of the Acting Managing Director Earth Observation: Ms A Sangoni (Appointed April 2023)		
Acting Allowance	194 782	-
	194 782	**-**
Remuneration of the Acting Managing Director Space Science: Mr J Ward (Appointed September 2023)		
Acting Allowance	131 174	-
	131 174	**-**
Remuneration of the Acting Managing Director Space Engineering: Mr J Witten (Appointed December 2023–January 2024)		
Acting Allowance	32 793	-
	32 793	**-**

18. Board Member Remuneration

2024	Meeting Fees		Reimbursive Claims		
	Paid Out R	Accrued R	Paid Out R	Accrued R	Total R
Independent Non-Executive Chairman of the Board					
Mr P Ndlovu	346 502	-	1 066	-	347 568
Independent Non-Executive Members					-
Ms N Majaja (1)	-	-	-	-	-
Ms L Msibi	-	-	-	-	-
Prof. A Muronga	84 515	7 552	-	-	92 067
Ms M Paul (1)	-	-	-	-	-
Ms C Segage	117 938	1 888	-	-	119 826
Mr T Ramaru	-	-	-	-	-
Mr N Rambau	146 826	1 416	1 348	-	149 590
Mr M Ngoetjana	106 219	5 664	171	-	112 054
Mr F Denner	100 787	-	-	-	100 787
Adv. L Ndziba	141 429	944	-	-	142 373
Ms J Ndaba	136 915	950	-	-	137 865
Adv. L Nevondwe	114 943	-	-	-	114 943
Total Board Members Remuneration	**1 296 074**	**18 414**	**2 585**	**-**	**1 317 073**

2023	Meeting Fees		Reimbursive Claims		
	Paid Out R	Accrued R	Paid Out R	Accrued R	Total R
Independent Non-Executive Chairman of the Board					
Ms X Kakana	89 678	-	-	-	89 678
Mr P Ndlovu (Appointed September 2022)	297 949	-	4 322	-	302 271
Independent Non-Executive Members					
Ms M Mfeka	-	-	3 790	-	3 790
Mr WJ van Biljon	71 136	-	-	-	71 136
Ms IM Pule	91 655	230	-	-	91 885
Ms N Majaja (1)	-	2 962	9 138	-	12 100
Adv. I Kealotswe-Matlou	225 650	-	1 391	-	227 041
Ms L Msibi	165 815	-	7 292	-	173 107
Prof. A Muronga	171 951	-	-	-	171 951
Ms M Paul (1)	-	-	6 388	-	6 388
Ms C Segage	129 332	-	-	-	129 332
Mr T Ramaru	-		-		-
Mr R Ramgolam	117 278	-	1 401	-	118 679
Mr N Rambau	147 632	-	15 844	-	163 476
Mr M Ngoetjana	98 527	-	1 123	-	99 650
Mr A Naidoo	-	-	-	-	-
Mr F Denner	97 949	-	820	-	98 769
Adv. L Ndziba	164 821	-	3 339	-	168 160
Ms J Ndaba	120 719	-	-	-	120 719
Adv. L Nevondwe	126 500	-	5 975		132 475
Total Board Members Remuneration	**2 116 592**	**3 192**	**60 823**	**-**	**2 180 607**

(1) Appointed as a representative of the state.

19. Depreciation and Amortisation

	2024 R	2023 R
Depreciation: Property, Plant and Equipment	31 957 328	24 695 715
Amortisation: Intangible Assets	3 013 178	2 053 656
Total Depreciation and Amortisation	**34 970 506**	**26 749 371**

20. Data Licence Fees

	2024 R	2023 R
Data Licence Fees	2 233 169	2 732 142
Total Data Licence Fees	**2 233 169**	**2 732 142**

Data licence fees are paid for access to various satellites for downloading Earth Observation satellite imagery.

21. Student Bursaries and Research Grants Paid

	2024 R	2023 R
Bursaries to Students	6 628 375	6 124 060
Research and Development	3 478 034	15 059 076
Total Grants and Subsidies Paid	**10 106 409**	**21 183 136**

22. Antenna Infrastructure Services

	2024 R	2023 R
Antenna Infrastructure Services	4 805 891	10 612 159
Total Antenna Infrastructure Services	**4 805 891**	**10 612 159**

Antenna infrastructure services relate to client hosted infrastructure and the facilitation of civil works and antenna bases for customers. Project costs are recovered from contract revenue.

23. Training Expenses

	2024 R	2023 R
Staff Training	1 684 495	2 705 150
Staff Bursaries	991 049	899 865
Board Member Training	49 450	5 683
Total Training Expenses	**2 724 994**	**3 610 698**

Staff Training and Bursaries is expenditure incurred on various courses and funding for various recognised qualification oat tertiary institutions.

24. General Expenses

	2024 R	2023 R
Electricity	13 067 417	11 075 118
Travel and Accommodation	14 433 450	13 539 178
Rent and Lease Charges	5 555 228	5 850 657
License Fees	11 227 167	10 876 577
Data and Internet Services	5 209 702	5 274 508
Insurance	4 070 177	3 526 077
Advertising and Marketing	5 834 439	5 450 960
External Audit Fees	1 829 794	1 489 479
Security	3 210 233	2 498 931
Consulting Fees	11 687 874	15 655 786
Telephone Cost	256 410	314 422
Fuel and Oil	6 681 954	6 199 367
Conferences and Seminars	4 367 630	3 728 073
Printing and Stationery	404 278	231 217
Transport Costs	661 539	562 341
Consumables	366 968	739 667
Bank Charges	269 019	210 094
Entertainment	158 298	56 734
Legal Costs	367 615	1 182 795
Internal Audit Fees	358 557	527 219
Other General Expenses	11 355 386	12 296 909
	101 373 135	**101 286 109**

Operating and capital expenditure amounting to R78 453 114 was funded from accumulated surplus funds following approval by National Treasury. Utilisation of the accumulated surplus contributed to the deficit reflected in the Statement of Financial Performance.

25. Net Gains and Losses on Foreign Exchange

	2024 R	2023 R
Gains in Foreign Exchange Transactions	**1 158 405**	**1 935 569**
Gains in Net Foreign Exchange - Realised	1 158 405	1 898 792
Gains/Loss in Net Foreign Exchange - Unrealised	-	36 777
Losses in Foreign Exchange Transactions	**(2 184 810)**	**(2 012 303)**
(Losses) in Net Foreign Exchange - Realised	(2 149 634)	(2 012 303)
(Losses) in Net Foreign Exchange - Unrealised	(35 176)	-
Net Gains/(Losses) on Foreign Exchange Transactions	**(1 026 405)**	**(76 734)**

26. Net Losses on Disposal of Property, Plant and Equipment

	2024 R	2023 R
Proceeds on Disposal of Property, Plant and Equipment and Intangible Assets	21 781	27 744
Net Book Value on Disposal of Property, Plant and Equipment	(705 166)	(388 878)
Net Book Value on Disposal of Intangible Assets	(753)	(1 671)
Net (Losses) on Disposal of Property, Plant and Equipment and Intangible assets	**(684 138)**	**(362 805)**

27. Net Cash Flows from Operating Activities

	2024 R	2023 R
(Deficit)/Surplus for the Year	**(17 612 283)**	**10 278 389**
Adjustment for:		
Depreciation and Amortisation	34 970 506	26 749 371
Non-cash Losses on Disposal of Property, Plant and Equipment	684 138	362 805
Net (Gains)/Losses on Foreign Exchange Transactions	1 026 405	76 734
Impairment Losses for the Year	79 173	13 800
Increase in Provisions Relating to Employee Costs	61 473	(10 713 266)
Operating Surplus Before Working Capital Changes	**19 209 412**	**26 767 834**
(Decrease)/Increase in Inventory	(2 115 729)	38 106
(Increase) in Receivables from Exchange Transactions	(14 320 207)	(13 810 804)
Decrease/ (Increase) in Other Receivables	284 395	2 879 685
(Decrease)/Increase in Grant Liabilities	490 545 854	80 919 146
(Decrease)/Increase in Trade and Other Payables	(13 313 697)	5 298 646
(Decrease)/ Increase in Operating Lease Liability	-	(23 464)
Cash Flow from Operating Activities	**480 290 029**	**102 069 149**

28. Impairment of Accounts Receivable

	2024 R	2023 R
28.1 Receivables from Exchange Transactions		
Impairment losses for the year	79 173	13 800
Total Expenditure for Bad Debts	**79 173**	**13 800**

29. Irregular Expenditure and Fruitless and Wasteful Expenditure

	2024 R	2023 R
Irregular Expenditure	-	-
Fruitless and Wasteful Expenditure	-	-
Closing Balance	**-**	**-**

The Agency commenced an investigation into possible irregular expenditure in relation to a payment of R481 365.85 made to a supplier on 31 March 2023.

30. Commitments for Expenditure

	2024 R	2023 R
Capital Commitments		
- Approved and Contracted for:	**231 753 635**	**16 225 737**
Property, Plant and Equipment	229 782 852	13 438 032
Intangible Assets	1 970 783	2 787 705
- Approved but Not Yet Contracted for:	**407 289**	**3 939 000**
Property, Plant and Equipment	407 289	3 939 000
Intangible Assets	-	-
Total Capital and Expenditure Commitments	**232 160 924**	**20 164 737**
This expenditure will be financed from:		
Contract Revenue and Transfers	232 160 924	20 164 737
	232 160 924	**20 164 737**

31. Employee Retirement Benefit Information

The only obligation of the entity with respect to the retirement benefit plans is to pay over the specified contributions to the pension fund.

The total expense recognised in the Statement of Financial Performance represents contributions payable to the plan by the entity on behalf of the employee at rates specified in the rules of the plan. These contributions have been expensed under employee related costs.

32. Related Party Transactions

South African National Space Agency (SANSA) has been established by the Department of Science and Innovation (DSI) in terms of the South African National Space Agency Act No.36 of 2008. SANSA is listed as a schedule 3A Public entity in terms of the Public Finance Management Act, and is ultimately controlled by the National Executive.

32.1 Related Persons: Executive Authority

The Minister of Higher Education, Science and Innovation is the Executive Authority of SANSA.

32.2 Related Persons: Accounting Authority

The Accounting Authority is constituted by a Board of Directors appointed by the Minister of Higher Education, Science and Innovation.

The Board composition is as follows:

NAME	DESIGNATED PUBLIC ENTITY BOARD STRUCTURE	EFFECTIVE DATES OF APPOINTMENT AND RESIGNATION
Ms X Kakana	Board Chairperson	01 September 2018–08 July 2022
Prof. A Muronga	Board Member	01 September 2018–to date
	Acting Board Chairperson	26 July 2022–31 August 2022
	Chairperson of Strategy and Investment Committee	24 February 2022–31 August 2022
Mr P Ndlovu	Board Chairperson	01 September 2022–to date
Mr F Denner	Chairperson of Strategy and Investment Committee	07 February 2023–to date
	Board Member	01 September 2022–to date
Ms N Majaja	Board Member	01 September 2018–to date
	Chairperson of Human Resource, Social and ethics Committee	01 September 2018–31 August 2022
Adv. L Ndziba	Chairperson of Human Resource, Social and ethics Committee	16 September 2022–to date
	Board Member	01 September 2022–to date
Ms I Pule	Chairperson Audit and Risk Committee	01 September 2018–31 August 2022
	Board Member	8 June 2016–31 August 2022
Mr J Prinsloo	Chairperson of Strategy and Investment Committee	01 September 2014–31 March 2018
	Board Member	01 September 2014–31 August 2022
Ms C Segage	Chairperson Audit and Risk Committee	01 September 2022–to date
	Board Member	01 September 2022–to date
Mr R Ramgolam	Chairperson of Strategy and Investment Committee	01 September 2022–27 January 2023
	Board Member	01 September 2022–27 January 2023
Adv. I Kealotswe-Matlou	Board Member	01 September 2018–27 February 2023
Ms M Mfeka	Board Member	01 September 2014–31 August 2022
Ms L Msibi	Board Member	01 September 2018–30 September 2023
Mr A Naidoo	Board Member	01 September 2014–31 August 2022
Ms J Ndaba	Board Member	01 September 2022–to date
Adv. L Nevondwe	Board Member	26 July 2022–to date
Mr M Ngoetjana	Board Member	01 September 2022–to date
Ms M Paul	Board Member	01 September 2018–25 April 2023
Mr N Rambau	Board Member	01 September 2022–to date
Mr T Ramaru	Board Member	01 September 2022–to date
Mr W van Biljon	Board Member	01 September 2018–31 August 2022
Mr H Mudau	Executive Member (CEO)	01 April 2023–to date

Refer to Note 18 for Board Fees paid.

32.3 Related Persons: Key Management

The Members of Key Management Personnel of SANSA During the Year Were:

Chief Executive Officer – Mr H Mudau (Ex-officio member of the Board) Appointed April 2023

Chief Financial Officer – Mr B Jena

Executive Director Enterprise Services – Ms S Mazibuko

Managing Director Space Science – Dr L McKinnell (until August 2023)

Executive Director Space Operations – Mr R Hodges

Acting Executive Director Space Engineering – Mr T Mokgalagadi (Appointed March 2023–November 2023)

Acting Executive Director Earth Observation – Ms A Sangoni (Appointed April 2023)

Acting Executive Director Space Science – Mr J Ward (Appointed August 2023)

Acting Executive Director Space Engineering – Mr J Witten (Appointed December 2023–January 2024)

Refer to Note 17 for details on the remuneration of key management.

32.4 Related Entities: Entities within National Government

SANSA is a Schedule 3A public entity and it is therefore related to all other entities within National Government.

33. Related Party Transactions

33.1 Related Party Transactions

SANSA receives transfers from the Department of Science and Innovation for its administrative functions. In addition, SANSA received ring-fenced transfers from the DSI for various projects. Refer to Note 12 for details of transfers from the DSI and Note 11 for details of payables and/or commitments from the DSI.

33.2 During the year under review SANSA received grants from the National Research Foundation (NRF) to fund different research projects, the details of the grants, liabilities and revenues relating to the grant are disclosed in Note 12.

Transactions with related parties within national government were in terms of normal supplier and/or client/recipient relationships on terms and conditions no more or less favourable than those which it is reasonable to expect the entity to have adopted if dealing with that individual entity or person in the same circumstances; and terms and conditions within the normal operating parameters established by that reporting entity's legal mandate.

Entity name	2024 Revenue R	2024 Receivables R	2023 Revenue R	2023 Receivables R
Related Party Transactions: Revenue and Receivables				
Department of Science and Innovation	173 343 722	-	201 317 658	-
National Research Foundation	7 504 990	-	10 702 739	-
	180 848 711	**-**	**212 020 397**	**-**
Related Party Relationships: Purchases and Payables				
Department of Science and Innovation	-	678 654 606	-	185 763 805
National Research Foundation	-	6 957 575	-	22 911 217
	-	**685 612 181**	**-**	**208 675 021**

34. Contingent Liability and Contingent Asset

Contingent Liability

An employee demanded R6 476 415.52 and subsequently filed a court application in relation to a disputed employment matter. The matter was opposed and judgement was reserved.

Contingent Assets

The Agency is currently involved in litigation in relation to R469 300.22 in Board Fees claimed by and paid to a director that is employed by a state-owned entity. This is a disputed matter and outcomes cannot be determined at this stage.

Judgement for costs amounting to R113 040.82 plus interest were awarded to SANSA in relation to a legal dispute with a former employee. Recovery procedures are currently underway.

35. Financial Risk Management Objectives and Policies

All financial instruments arise directly from operations.

The entity does not enter into any derivative transactions. The main risk arising from the entity's financial instruments are cash flow interest rate risk, liquidity risk and credit risk.

The entity reviews and implements policies to manage each of these risks. There are no significant concentrations of risk. Compliance with policies and procedures is audited by internal and external auditors on a continuous basis.

35.1 Interest Rate Risk

No material risk exists due to there being no material finance costs in the current financial year. The only real risk that exists is the risk of variations in cash flow due to changes in the interest rate, which will affect interest income.

The entity's income and operating cash flows are substantially independent of changes in market interest rates.

31 March 2024	Floating Interest Rate R	Non-interest Bearing R	Total R
Assets			
Receivables from Exchange Transactions	-	45 094 834	**45 094 834**
Cash and Cash Equivalents	816 693 129	3 292	**816 696 421**
Liabilities			
Trade and Other Payables	-	(30 035 557)	**(30 035 557)**
Net Financial Assets/(Liabilities)	**816 693 129**	**15 062 569**	**831 755 698**

31 March 2023	Floating Interest Rate R	Non-interest Bearing R	Total R
Assets			
Receivables from Exchange Transactions	-	31 059 022	**31 059 022**
Cash and Cash Equivalents	359 325 208	3 795	**359 329 003**
Liabilities			
Trade and Other Payables	-	(42 363 522)	**(42 363 522)**
Net Financial Assets/(Liabilities)	**359 325 208**	**(11 300 705)**	**348 024 503**

The sensitivity analysis below was determined based on the exposure to interest rates at the reporting date. For variable rate long-term instruments, the analysis is prepared assuming the amount of the instrument outstanding at the reporting date was outstanding for the whole year. A 100 basis point increase or decrease was used, which represents management's assessment of a reasonable possible change in interest rates.

Effect of a Change in Interest Rate on Interest-bearing Financial Assets and Liabilities

Financial Assets	Classification	2024 R	2023 R
External Investments:			
Call Deposits	Financial assets at amortised cost	-	-
Bank Balances	Financial assets at amortised cost	816 693 129	359 325 208
Cash Floats	Financial assets at amortised cost	3 292	3 795
		816 696 421	**359 329 005**
Interest Received		**13 437 316**	**9 853 845**
Interest Rate		**1.65%**	**2.74%**

Effect of a Change in Interest Rate on Interest Earned from External Investments:

Financial Assets	Classification	2024 R	2023 R
Effect of Change in Interest Rate	%	1.00%	1.00%
Effect of Change in Interest Rate	Rand Value	**8 166 964**	**3 593 290**
Effect of Change in Interest Rate	%	(1.00%)	(1.00%)
Effect of Change in Interest Rate	Rand Value	**(8 166 964)**	**(3 593 290)**

35.2 Liquidity Risk

The entity prevents liquidity risk by maintaining adequate banking facilities and by receiving contributions annually in the form of transfers and subsidies.

The following are the contractual maturities of financial liabilities, including interest payments and excluding the impact of netting agreements for the entity:

2024	Carrying amount R	Contractual cash flows: 1 month or less R
Trade and Other Payables	17 265 565	8 143 447
	17 265 565	**8 143 447**

2023	Carrying amount R	Contractual cash flows: 1 month or less R
Trade and Other Payables	23 421 744	11 047 058
	23 421 744	**11 047 058**

35.3 Market risk

There is a foreign exchange risk due to the existence of international debtors. These debtors however have strict 30 day payment terms which ensures that the movement in exchange rates are limited to a shorter time period.

The Entity's Exposure to Foreign Currency Risk was as Follows:

31 March 2024	ZAR R	GBP R	EURO R	USD R
Receivables from Exchange Transactions	13 868 584	-	6 162 118	4 954 704
Trade Payables	(17 265 565)	-	-	-
Gross Exposure	**(3 396 981)**	**-**	**6 162 118**	**4 954 704**

31 March 2023	ZAR R	GBP R	EURO R	USD R
Receivables from Exchange Transactions	13 129 501	-	4 300 827	9 581 133
Trade Payables	(23 421 744)	-	-	-
Gross Exposure	**(10 292 243)**	**-**	**4 300 827**	**9 581 133**

The Following Significant Exchange Rates Applied During the Year:

	2024 R	2023 R
Year-end Spot Rate		
Euro	20.35	19.29
GBP	-	21.94
USD	18.85	17.79

Sensitivity Analysis

A 10% strengthening of the Rand against the following currencies as at 31 March 2024 would have decreased profit or loss by the amounts shown above. This analysis assumes that all other variables remain constant.

Euro	12 539 910	8 296 295
GBP		-
USD	9 339 616	17 044 835
Total	**21 879 526**	**25 341 130**

35.4 Credit Risk

The entity does not have any significant credit risk exposure to any single counterparty.

The amounts below best represent the entity's maximum exposure to credit risk.

	2024 R	2023 R
Financial Assets		
Bank Balances	816 696 421	359 329 003
Receivables from Exchange Transactions	40 884 712	26 500 611
	857 581 133	**385 829 614**

36. Pending Litigation

Land Claim

The land claim remains pending since approximately 2008 in respect of the property upon which SANSA Space Operations is located. SANSA is not the owner of the land, however, the Department of Science and Innovation has supported the application made by SANSA to the Department of Public Works to formalise the land use rights of the property. In respect of the land claim proceedings, SANSA has also facilitated the filing of the notice to intervene as an interested party in November 2014 with the Randburg Land Claims Court. A scientific expert report was submitted in support of the notice to intervene and also used in support of the submission to the Department of Public Works as part of the application for formalised land use rights. The case is still pending.

37. Events after the Reporting Date

Subsequent to year-end SANSA was in discussions with Geoscience Australia concerning the transfer of the Digital Earth Africa Programme to a new host. It is anticipated that such a transfer would be completed in the year ending 31 March 2025 and this is a non-adjusting event.

38. Going Concern

The Annual Financial Statements have been prepared based on accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

39. Living and Non-living Resources

Game on the Farm at Space Operations – Hartebeesthoek – Krugersdorp

In terms of GRAP 110 – Living and Non-living Resources, SANSA assessed the game, mainly blesbok a sub-species of the antelope endemic to South Africa, on the farm to test for control and recognition as assets in the Annual Financial Statements deriving future economic benefits. The exercise was concluded and it established that SANSA does not have control over the game resulting in only a disclosure note to the Annual Financial Statements.

Living Resources – Blesbok and Other Wild Game Animals

Numerous game (wild animals namely Blesbok, tortoises, rabbits, steenbok, leopards, monkeys and snakes are found in and around the property spanning a secured area of 180 hectares and the external free-range farm of 2 700 hectares The game always existed in the greater area where the property is situated, and they were never specifically acquired or obtained by other non-exchange transactions for the purposes of generating future economic benefits.

In and around the property, the game can move freely to adjacent land/farms and is not fenced off using proper game fencing, which will restrict the movement of the game. SANSA does not play a daily active role in feeding, attending to the sick, attending to their physical condition, directing the use of the Blesboks or tagging the Blesboks for an inventory count.

In terms of GRAP 110, 23, 24 and 25 the intention is to conserve and not otherwise manage.

An entity may hold resources to meet its mandate in acting as a custodian to conserve the resources entrusted to it. When the entity is, in terms of its mandate, expected to manage and/or conserve the environment as a whole, it does not manage the physical condition of each individual animal or plant within that environment. As a result, the entity may conclude that it does not control these living resources.

There was no disposal of living resources during the year.

PART G

KNOWLEDGE DISSEMINATION

43. Overview of Journal Publications

SANSA is reporting another year of excellence with its scientific outputs for 2023/24. SANSA researchers have produced a total of 28 (SS = 20; EO = 8) peer-reviewed publications in high-impact journals covering the broad fields of space science and earth observation. The top ten, identified by journal impact factor and author position, are given in the following table. Key highlights from the publications are also provided. SANSA is proud of the international recognition that its researchers are receiving.

During 2023/24, two SANSA researchers, Dr Rendani Nndangageni and Dr Thsimangadso Matamba were awarded their NRF rating at C3 level in March 2024. This is a major step forward in the career of a researcher. Level C means they are nationally recognised as established researchers. This also means, that for the first time, all of SANSA's researchers are NRF rated.

During 2023/24, Naledzani Mudau completed her PhD studies, publishing three papers. This is a significant achievement and contributes positively to HCD.

Table 33: Top 10 journal publications ranked by impact facto

TITLE		JOURNAL	IMPACT FACTOR		FIVE-YEAR TARGET (MARCH 2025)
1	Optical remote sensing of crop biophysical and biochemical parameters: An overview of advances in sensor technologies and machine learning algorithms for precision agriculture	Computers and Electronics in Agriculture	6,757	Lesiba Tsoeleng	This paper provides an overview of the recent developments in remote sensing technology and machine learning algorithms for estimating important biophysical and biochemical parameters for precision farming
2	Height Determination of a Blue Discharge Observed by ASIM/ MMIA on the International Space Station	Journal of Geophysical Research: Atmospheres	5,217	Michael Kosch	This paper analyses simultaneous photometric observations of thundercloud discharges from the Modular Multispectral Imaging Array of the Atmosphere-Space Interactions Monitor (ASIM) on board the International Space Station with ground-based vertical electric field measurements in South Africa on 3 February 2019 at 23:00–23:05 UTC
3	Spectroscopic Imaging of the Sun With MeerKAT: Opening a New Frontier in Solar Physics	Astrophysics	4,9	Amore Nel	It presents the first published spectroscopic images of the Sun made using the observations with MeerKAT in the 880-1670 MHz band

	TITLE	JOURNAL	IMPACT FACTOR		FIVE-YEAR TARGET (MARCH 2025)
4	Assessment of Spatial Patterns of Backyard Shacks Using Landscape Metrics	Drones (MDPI)	4,8	Naledzani Mudau	The study assessed the spatial patterns of backyard shacks in a formal settlement containing low-cost government houses (LCHs) using Unmanned Aerial Vehicle (UAV) products and landscape metrics
5	Ocean color algorithm for the retrieval of the particle size distribution and carbon-based phytoplankton size classes using a two-component coated-sphere backscattering model	Ocean Science (Springer)	4,31	Stewart Barnard	It presents an ocean color satellite algorithm for the retrieval of the parameters of an assumed power-law PSD.
6	Validation of ionospheric specifications during geomagnetic storms: TEC and foF2 during the 2013 March storm event-II	Space Weather	4,288	John Bosco Habarulema	Updated numerical and simulation models are evaluated in terms of their capabilities to reproduce ionospheric total electron content and critical frequency of the F2 layer. Results give an indication of the conditions under which existing models may be used for navigation, positioning and HF communication applications.
7	Ground-based infrastructure for improved space weather specification at low latitudes	Bulletin of the American Astronomical Society	4,2	John Bosco Habarulema	A notional deployment of a heterogeneous network of ground-based instrumentation is proposed. The scientific rationale for the deployment is to gain a comprehensive suite of measurements pertinent to improving our understanding of the longitudinal variability in the equatorial and low-latitude ionosphere/thermosphere system and the irregularities that can exist, therein.

	TITLE	JOURNAL	IMPACT FACTOR		FIVE-YEAR TARGET (MARCH 2025)
8	Assessment of the Ecological Condition of Informal Settlements Using the Settlement Surface Ecological Index	Land (MDPI)	3,9	Naledzani Mudau	This study developed a settlement surface ecological index (SSEI) using tree, soil, impervious surface and grass covers, land surface temperature (LST), andsoil moisture derived from Satellite Pour L'Observation de la Terre (SPOT) 7 and Landsat 8 satellite images.
9	Development of a regional F-region critical frequency model for Southern Africa	Space Weather	3,7	Sahil Brijraj; Pierre Cilliers; Michael Kosch	A new localized linear regression model, called the SANSA model, is presented
10	Spatio-temporal dynamics of methane concentration and its association to climatic and vegetation parameters: a case study of the Northern Cape Province, South Africa	Geocarto International	3,45	Nosiseko Mashiyi, Lerato Shikwambana and Mahlatse Kganyago	Seasonality plays a critical role in the relationships of methane and (climatic and vegetation) parameters

SANSA PUBLICATIONS 2023/24

1. Kansabanik, D., Mondal S., Oberoi, D., Chibueze, J.O., Engelbrecht, N., Strauss, N.E., Kontar, R. D., Gert, E.P., Botha, J.J, Steyn, P. J. & **Nel, A. E**. (2023).Spectroscopic Imaging of the Sun With MeerKAT: Opening a New Frontier in Solar Physics. https://doi.org/10.48550/arXiv.2307.01895

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